



Digital Markets Act Impact Assessment support study

Annexes

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Digital Markets Act - Impact Assessment support study

Annexes

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Annex 1. Detailed Impact assessment

a. The importance of digital applications for EU society and the economy

Digital services and applications are rapidly becoming central to the lives and livelihoods of Europeans.

Usage of digital devices has increased significantly during the COVID pandemic, which is likely to increase the relative importance of online platforms compared with the off-line world. Specifically, following the lockdown, one global survey found that consumers have made greater use of video and music streaming (cited by 57% and 39% respectively), and spent more time on social media and mobile applications (cited by 47% and 36% respectively).¹ Online collaboration tools have also seen substantial take-up.

Behavioural changes pursued during the pandemic such as increased home working may continue even after the pandemic subsides, which could lead to a greater reliance on and permanent shift in consumption of some digital applications. A survey of global decisions makers by DMEXCO found that 78% of respondents considered that working from home would be much more accepted than before, while 59% considered that communication and collaboration tools such as Slack, Asana and Microsoft Teams would become more important.

Depending on the definition, the **digital economy was estimated in 2019 to account for between 4.5-15.5% of global GDP.**² Recent studies suggest that, if the value of “free” digital services and applications were appropriately accounted for, total GDP, and the proportion due to the digital economy, would be even higher.³

According to a July 2020 survey conducted by Statista and UPS, **63% of the European turnover of consumer-focused e-commerce merchants responding to the survey⁴ was made through online sales,**⁵ and 74% of respondents expected a further increase in online sales in the next 2-3 years.

Online music, video and games sales are rapidly displacing sales of physical formats. Revenues from digital music (streaming and downloads), in Europe were projected by Statista to increase from USD4.1bln in 2019 to USD5.4bln in 2025.⁶ **38% of surveyed consumers in Germany preferred to buy books, movies, music and games online rather than offline.**⁷

Online provision of travel services, including booking services for hotels and transport is also fast over-taking other channels. **42% of Germans booking holiday trips in 2019 did so online compared with just 26% in 2010.**⁸

Digital platforms have also enabled the provision of services which are viewed by many consumers as essential, but which have no readily identifiable equivalents in the offline world

¹ Hootsuite Digital 2020 global statshot report <https://thenextweb.com/growth-quarters/2020/04/24/report-most-important-data-on-digital-audiences-during-coronavirus/>

² https://unctad.org/en/PublicationsLibrary/der2019_overview_en.pdf

³ See for example <https://hbr.org/2019/11/how-should-we-measure-the-digital-economy>, https://www.oecd.org/naec/Brynjolfsson_MOCE-GDP-B_OECD_2018-07-26.pdf, https://www.cepal.org/sites/default/files/presentations/2018-05-semcn_6_1_ocde-nadim_ahmad.pdf

⁴ The survey targeted e-commerce merchants in the UK, France, Germany and Poland

⁵ Statista European eCommerce monitor

⁶ Statista Digital Music Outlook 2020

⁷ Statista

⁸ Statista

such as social media. According to data from Eurostat⁹ **56% of all individuals in the EU participated in social networks in 2018, an increase from 38% in 2011.**

In turn, browsers and search engines, provide a gateway for users to access the diverse range of content available on the Internet, while app stores play a similar role in accessing services on handheld and other devices and television.

Business productivity applications such as Word processing and communications are also increasingly moving online, supported by increasing adoption of cloud-based services, and the promotion of subscription-based services by software providers that previously sold stand-alone services for a one-time fee.

b. What is the problem and why is it a problem?

i. What is the nature of the problem?

Certain players have been able to establish themselves as gatekeepers

The digitisation of services has been associated with widespread innovation. However, **digitisation has also been associated with the ability of certain players to act as gatekeepers, controlling access to the information that end-users see and the services they receive and controlling the functionality, positioning, terms and conditions available to businesses depending on those platforms.**

For example, **nearly half of companies** responding to a Statista/ UPS survey in July 2020 concerning e-Commerce in Europe said they **sold goods and services through online marketplaces.**¹⁰ Amazon and eBay were clear leaders in this space. A major travel portal interviewed for this study observed that nearly half of its traffic was referred from Google. **The average Italian spent more than 45 hours using Facebook in the course of December 2019 and 24 hours using Google – far outstripping the time spent on other sites.**¹¹ In countries such as the Netherlands, use of Microsoft's Office 365 suite (coupling productivity software with cloud services) grew from just 12% of companies in 2015 to 56% in 2019.¹² **58% of Germans booking accommodation between 2019-2020 had done so through Booking.com.**¹³

Gatekeepers can undermine the trading conditions for dependent business users and/or control the conditions for innovation and entry by independent firms

The gatekeeper role played by certain platforms can in turn result in **business users becoming dependent on those platforms to access customers**, and enable platforms to **control the terms and conditions of access.**

By virtue of their control over customers in markets with strong network effects, alongside access to data and financial power, gatekeeper platforms may also be able to **maintain their position and leverage their power from one market into another.**

The resulting concentration of control over certain aspects of the value chain can result in **unfair terms** for dependent firms, while potential competitors, which might otherwise offer an alternative route to market, may find it challenging to gain a foothold in the market.

⁹ eurostat.ec.europa.eu

¹⁰ Idem.

¹¹ Statista

¹² Statistic office productivity software market share worldwide

¹³ Statista

Large gatekeeper platforms which have a strategy to extend their business to provide a wider “ecosystem” of services or which form part of digital conglomerates can also engage in **self-preferencing and bundling practices** which could undermine the position of rivals.

Exclusionary or discriminatory conduct by large digital platforms could lead to the exit of otherwise efficient innovative players, or a failure of potential entrants to launch new services in competition with or over digital platforms. In turn, limitations on the potential for competitors to expand and control over prices for intermediation or advertising, could result in **reduced choice for consumers or higher prices over time**.

Another important effect of the exercise of control by large digital platforms is that they can **inhibit innovation** by potential alternative platforms or by applications providers operating on their platform.

While gatekeeper platforms may themselves be significant drivers and sponsors of innovation, there may be **unequal opportunities for innovation**, for example if alternative application or platform providers lack access to the same range of market data or lack access to the full functionality of the platform concerned, or if large digital platforms use their position of control to impede the entry or expansion of potential challengers. As noted in 2018 research on the relationship between platforms, innovation and entrepreneurship by Nambisan, Siegel and Kenney.¹⁴

“Never before has so much of entrepreneurs’ decision-making, strategies and success been at the mercy of an external entity as is evident in the case of the platform economy. Platform firms can “tax” the entrepreneur’s income, decide on the appropriateness of the entrepreneur’s creation, and make a wide variety of other unilateral decisions that could critically shape the survival and continued success of the new venture.”

Ultimately, if there is no realistic prospect to create an effective competing platform or application to rival those belonging to existing large digital platforms, alternative platform and application developers may focus their business strategy and innovation goals solely on aspects that would be attractive for the leading platform i.e. complementary innovation with a view to acquisition, rather than pursuing strategies aimed at substituting or disrupting the business models of existing online platforms, which may generate greater consumer welfare in the long run.

Fragmented efforts to tackle the problems lead to legal uncertainty and undermine the single market

The well-documented and extensive nature of problems associated with gatekeepers in digital platforms has led various countries within and outside the EU to take or consider their own measures to address gatekeeper power.

Countries including the US, Japan, Australia and the UK have introduced or are considering their own measures,¹⁵ while initiatives within the EU include a proposed amendment to the German Competition Act,¹⁶ and a proposed law to enhance consumer choice online in France¹⁷.

¹⁴ Nambisan, Siegel and Kenney (2018) On Open Innovation, platforms and entrepreneurship https://brie.berkeley.edu/sites/default/files/brie_wp_20185.pdf

¹⁵ See Annex 5

¹⁶ GWB-Digitalisierungsgesetz, government bill of 9 September 2020 www.bmwi.de/Redaktion/DE/Downloads/Gesetz/gesetzentwurf-gwb-digitalisierungsgesetz.pdf?__blob=publicationFile&v=6. On 30 November 2020, the bill was before the Bundestag’s Committee on Economic Affairs and Energy.

¹⁷ http://www.assemblee-nationale.fr/dyn/15/textes/l15b2701_proposition-loi

However, fragmented approaches to addressing a problem which concerns cross-border platforms and is pan-European in scope, risks creating its own problems by increasing legal uncertainty and creating a plethora of different rules which impact the ability of platforms (and especially entrants or small scale platforms) to operate cross border, and impede business users including SME from providing services across the EU.

ii. How widespread is the problem?

The prevalence of unfair practices by large gatekeeper platforms is evidenced not only in the number of cases that have been investigated by competition and other authorities, but also from common themes raised by interviewees and in case studies prepared in the context of this study.

Examples of some of the unfair practices that have been identified, platforms alleged to be involved and the nature of the concern in each case is provided in the following table. Further detail is provided below.

Unfair practice	Platforms alleged to be involved	Nature of concern
Unfair contract terms	Apple	Concern over anti-steering clauses on the Apple App store (Epic games case)
	Booking.com	Cases over MFN clauses in relation to Booking
	Amazon	Alleged links between access / rankings and unrelated conditions, investigation around contract terms by DE, AT authorities
	Uber	Concerns around exclusivity clauses
Anti-competitive use of third party data	Amazon	Misuse of Amazon marketplace data to benefit own services, EC investigation
	Google	Investigation by Italian NCA over misuse of third party data to support display advertising
	Apple	Concerns over Apple App store data use to inform own music product development
	Facebook	German NCA found misuse of third party data from Facebook login
Challenges with data access or data portability	Apple	Lack of data or data provided late
	Booking	Lack of facility to readily port user ratings' data
	AirBnB, Ebay	
Self-preferencing in rankings and listings	Google	Google shopping case (influencing listings), job search feature, concerns over travel listings
		Pre-installation of Chrome on Android
		Refusal to list competing app on auto services (Italian NCA)
	Amazon	Amazon investigation by Italian NCA (influencing listings for companies using Amazon fulfilment)

Unfair practice	Platforms alleged to be involved	Nature of concern
	Apple	Preferential display/advertising of Apple Music
Other forms of self-preferencing, tying and bundling	Amazon	Tying of Amazon Prime video to shipping
	Microsoft	Pre-installation and tying with OS, Office
	Apple	Pre-installation and advertising with OS
Lack of access to key functionality	Apple	Lack of access to payment chip
	Microsoft	Lack of access to functionality allowing seamless operation in context of software and cloud services
	Amazon	German and Austrian Comp authorities – exclusive access to rating service Vine
Potentially excessive commissions / wholesale charges	Apple	“Commissions” of up to 30% are cited
	Amazon	
	Booking	

Unfair contract terms

One concern which is illustrated through competition cases as well as interviews concerns the imposition by gatekeeper platforms of contract terms (known as “**anti-steering**” and “**most favoured nation**” clauses) which seek to limit third parties’ ability to compete on price or to develop direct relationships with customers.

Anti-steering clauses are at the heart of a lawsuit filed in August 2020 by Epic Games against Apple. The lawsuit followed Apple’s action to remove Epic’s Fortnite game from the App Store on the basis that Epic had introduced a discounted direct payment option for iOS and Android, which contravened its marketplace policies.¹⁸

Similar concerns were echoed by a service provider interviewed for this study, which noted that high commissions charged by Apple for in-app subscriptions coupled with the prohibition on advertising lower priced subscriptions via its own website made it difficult to compete with Apple’s competing product. The interviewee noted that, in the absence of intervention, smaller players could exit the market.

A related problem concerns contractual prohibitions on business users charging lower prices for the same service via other outlets, including their own websites.

Price parity clauses have been investigated, in particular in relation to the hotel booking sector, and restrictions imposed in some cases, in particular to prohibit “wide” price parity clauses which would prevent hotels from offering better terms via other sales channels. However, differing views have been taken in relation to narrow price parity clauses, which prohibit firms from offering lower prices on their own website. For example, in 2019 the Higher Regional Court of Dusseldorf annulled a 2015 decision by the German Federal Cartel

¹⁸ Complaint for Injunctive Relief of 13 August 2020, *Epic Games, Inc. vs. Apple Inc.*, para. 3–4 <https://cdn2.unrealengine.com/apple-complaint-734589783.pdf>

Office¹⁹ that prohibited Booking.com from applying narrow best price clauses in its contracts with hotels in Germany.

In interviews conducted for this study, another concern expressed was the imposition of contract terms (or other forms of pressure) which seek to **link access to the platform, or the conditions of access (such as ranking), to unrelated demands**, such as requirements for “investment” in other services or a commitment to make use of the platform’s single sign-on service.

Concerns around misuse of data

Concerns have been expressed concerning misuse of data by many of the leading platforms.

One concern is that **data obtained from third party sources could be misused by a gatekeeper platform to inform its own business and service development.**

In July 2019, the European Commission opened an investigation into alleged anti-competitive use of third party seller data by Amazon,²⁰ with a focus on how this use of data impacts competition.²¹ Although Amazon has noted that it applies restrictions, which aim to prevent private label executives from accessing marketplace seller data, according to one report, interviews with former employees conclude that such rules are not enforced internally, and that using such data was common practice and openly cited in category planning meetings.²² Moreover, during 2020 testimony before the US Congress, Amazon CEO Jeff Bezos stated that he could guarantee that the policy [not to access and use seller data when making business decisions] had not been violated. A particular concern expressed by firms interviewed for this study was that Amazon could use data on third party transactions to launch its own competing brands, for example in the context of “Amazon Basics” or other own-label products.²³

The Italian NCA is also investigating an alleged exclusionary abuse of dominance by Google in the form of “internal-external discrimination”. Specifically, it is alleged that Google is favouring its advertising intermediation services by relying on user data that Google collects from other, unrelated services or applications; and not making this data available for competing providers of display ad intermediation services. Interviewees also expressed concern that Google’s access to Google Analytics data across multiple sites and other platforms could enable it to engage in unfair competition with potential rivals, harming their revenues, profitability and ability to expand.

Concerns have also been raised over the potential for Apple to use its extensive data gathering capabilities to advance its own applications. The Dutch Authority for Consumers

¹⁹ https://www.bundeskartellamt.de/SharedDocs/Entscheidung/EN/Entscheidungen/Kartellverbot/B9-121-13.pdf?__blob=publicationFile&v=2

²⁰ European Commission pending Case 40462 *Amazon Marketplace*

https://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=1_40462 The Commission is looking into the standard agreements between Amazon and marketplace sellers, which allow Amazon’s retail business to analyse and use third-party seller data. In particular, it is focusing on whether, and how, the use of accumulated marketplace seller data by Amazon as a retailer affects competition. The Commission is also scrutinising the role of data in the selection of the winners of the so-called Buy Box, and the impact of Amazon’s potential use of competitively sensitive marketplace seller information on that selection.

²¹ As noted Since 2009, Amazon has sold own-brand goods under the logo “Amazon Basics”. Since December 2017, Amazon Basics has been the best-selling brand on Amazon.com. In achieving this position, Amazon may have benefited from its ability to evaluate product, sales and customer data generated from sales of goods provided by third party merchants, which do not have access to the same data.

²² See Klinger, Désirée; Bokemeyer, Jonathan; Della Rocca, Benjamin; Bezerra Nunes, Rafael (2020): AMAZON’S THEORY OF HARM; Yale University Thurman Arnold Project, Digital Platform Theories of Harm Paper Series: 1, May 2020, p. 20.

²³ See Case study on this subject in Annex 4

and Markets (ACM) noted in a 2019 study that Apple contracts afford the company the right to “imitate” third-party apps in its app store, conduct which could also be supported by knowledge of the popularity and revenues garnered by its competitors’ applications. A streaming service interviewed for the support study added that the lack of access to information about its subscribers via the Apple App store, and potential use by the platform of this data for its own benefit, served to put it at a competitive disadvantage.

Facebook has also been subject to action over data misuse. The German NCA found²⁴ that Facebook engaged in exploitative abuse of consumers’ data, involving data from subsidiaries as well as third party websites which made use of the Facebook login option.

Refusal to provide or delays in providing data

Many stakeholders have expressed concerns that the leading platforms have refused to offer access to the data they gather, even if it relates to them or could be used for innovative purpose.

Several business users and application developers interviewed for this study cited **challenges in accessing data concerning their own subscribers**. Representatives of hospitality providers also expressed concern that platforms did not always pass information about customers to the hotels concerned, or only with a time lag, making it more challenging for their members to invest in digital marketing. Interviewees also noted that a **lack of consistent formatting of data** created practical problems for data portability.

Academic literature²⁵ as well as a case study conducted for this report,²⁶ have also found that a **lack of access to and portability of customer ratings and reputation data** could contribute to switching costs, and make it harder for new platforms to emerge especially in the sharing economy.

Members of the expert panel convened for this study also noted that a failure of gatekeeper platforms to **engage in data sharing** more widely (especially as regards non-critical data) had impeded the development of alternative platforms and innovative services which could draw on the data concerned.²⁷

Manipulation of listings and rankings

Large gatekeeper platforms have engaged in various practices which aim to give preferential treatment to their own services and applications at the expense of competitors. One example concerns the alleged **manipulation of listings and rankings** to favour the platform’s own retail services.

The Google shopping case,²⁸ which resulted in a €2.42bn fine provides a clear example whereby Google gave its own comparison shopping service an illegal advantage by promoting it in search results, and demoting those of competitors.

²⁴ Case B6-22/16 against Facebook

²⁵ Haucap, J. (2019): Competition and Competition Policy in a Data-Driven Economy, *Intereconomics* 54, pp. 201–208, <https://doi.org/10.1007/s10272-019-0825-0>.

²⁶ See Annex 4

²⁷ Members of the expert panel convened for this study considered that data was an important source of innovation and that while data access should not be granted in all cases, access to non-critical data could enable innovation in other market segments

²⁸ https://ec.europa.eu/commission/presscorner/detail/en/IP_17_1784

Commission Vice-President Vestager has also indicated that the Commission is looking into Google's job search feature, which was recently launched in parts of the EU, and has been subject to complaints from various sources.²⁹

The Italian NCA is conducting an ongoing investigation on whether Amazon is penalising third parties which do not use its fulfilment services through worse search rankings, impacting visibility to consumers. Concerns around the Amazon ranking system were also raised by several business users interviewed for this study.

Other forms of self-preferencing, tying and bundling

Gatekeeper platforms can also engage in other practices apart from rankings which may have the effect of steering customers to their own services at the expense of those provided by third parties. These practices could include **pre-installation** and potentially **limits on de-installation** of their own applications without similar potential for rivals, and/or **bundling or tying** their newly launched services with services in which they already have an established position, in the absence of similar possibilities for rivals.

In 2018, in the *Google Android*³⁰ case, the European Commission found that Google engaged, among other things, in contractual tying practices that ensured that its general search app and mobile browser are pre-installed on practically all Android devices that are sold in the EEA.

Apple's pre-installation of its Apple music service onto Apple devices has also been highlighted by rival streaming providers as an area of concern. In 2019, the Dutch NCA opened an investigation into whether Apple abused its dominance in the mobile app store market, "for example, by giving preferential treatment to its own apps".

As regards bundling, Amazon's bundling of its premium shipping service (which is an essential feature of Amazon's core e-commerce business) together with additional services (video and music streaming, but also cloud storage and eBooks) could give these services extra visibility in comparison with rivals. In the short term, the provision of additional services at a low price is attractive for customers. However, in the long run, this practice could distort choice and undermine competition and innovation in the provision of video-on-demand services by others. For example, it is notable that usage of Amazon Prime is limited in countries where video is provided, but there is no shipping service available.³¹ US customers site price / performance as the key reason for choosing Prime Video.

Microsoft's tying strategies in relation to its Windows operating system and apps have faced antitrust scrutiny since 1990s, first in the US and subsequently in the EU. In 2004, the European Commission found that Microsoft abused its dominance in the market for PC operating systems (OSs) by, among other things, tying Windows Media Player (WMP) to the Windows OS.³² The Commission found that the tying ensured that "WMP is as ubiquitous on

²⁹ Reuters reported (6 June 2019) that German-based jobs portal operator Stepstone, a subsidiary of publisher Axel Springer, filed a complaint to the Commission in 2018, alleging that the Google for Jobs amounts to an abuse of dominance. Reuters also reported (13 August 2019) that 23 European job search websites, including British Best Jobs Online and German Intermedia, wrote a letter to Ms Vestager in August 2019 asking her to use interim measures against Google pending the investigation.

³⁰ European Commission decision of 18 July 2018 in Case 40.099 *Google Android* https://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=1_40099. Appeal T-604/18 *Google and Alphabet* pending before the General Court.

³¹ See case study Annex 4. WIK analysis based on data from Global/Webindex

³² European Commission decision of 24 March 2004 in Case 37.792 *Microsoft* (refusal to supply Windows interoperability information and tying Windows Media Player) https://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=1_37792; EU General Court judgment of 17 September 2007 in Case T-201/04 *Microsoft v. Commission* <http://curia.europa.eu/juris/liste.jsf?num=T-201/04>

PCs worldwide as Windows is". In 2008, the Commission opened proceedings against Microsoft to investigate potential abuse of dominance in the market for PC OS by tying the Internet Explorer (IE) web browser to the Windows OS. The Commission's preliminary finding was that such tying created an artificial distribution advantage that IE's competitors could not offset, for the same reasons as in the 2004 Windows Media Player case.

A further case relating to abuse of dominance connected to tying was submitted by Slack Technologies in July 2020. Slack claims that Microsoft is leveraging its "market-dominant Office productivity suite" for enterprises (recently rebranded as Microsoft 365 Business) to foreclose Teams' rivals. Microsoft is allegedly doing this through abusive tying of Teams to Office, by forcing its installation "for millions, blocking its removal, and hiding the true cost to enterprise customers". Until 2018, Slack was the clear market leader in this segment, but following the launch by Microsoft in July 2017 of a set of collaboration apps (Teams, SharePoint) and subsequent bundling of these products with Microsoft 365, Microsoft rapidly overtook Slack's position. In March 2019, directly before the Corona outbreak, so within less than 2 years from launch, MS already had dwarfed Slack with 32 million daily active users of Team versus 12 million for Slack.

Excessive commissions

Several complaints have been made that app stores or e-commerce merchants have charged **inflated fees for the hosting or applications or listing or sale of products** on their platforms.

In June 2020, the European Commission opened antitrust investigations into Apple's alleged anticompetitive practices in relation to its App Store rules for third-party developers of apps that compete with Apple. The Commission noted in this context that as Apple charges third-party app developers a 30% commission on all subscription fees, "Apple's competitors have either decided" to disable the in-app subscription possibility or pass this fee on to consumers. These concerns were echoed by music streaming providers interviewed for the IA support study.

High and discriminatory fees were also noted in a 2019 market study by the Dutch authority ACM, which found that app providers offering digital content or services (such as Netflix or Spotify) were required to pay a high commission (30% in the first year) on in-app purchases, while providers of "physical" products (such as Uber or Amazon) do not have to pay such a commission.

High commissions of 15-30% (+ fulfilment) on products sold through the Amazon marketplace were also cited as problematic by stakeholders interviewed for this study.

Specific challenges for hospitality providers such as hotels were also raised in the context of interviews. A key problem cited was the high commission paid to online intermediaries such as Booking.com, which could be around 20%, coupled with price parity or most favoured nation clauses in some cases, which prohibited the venues from advertising lower prices on their websites.

Lack of access to key technical functionalities

Another widespread concern is that gatekeeper platforms have in some cases **denied access to key functionality** impeded in the device, and thereby impeded the development of innovative services based on that functionality.

In a 2019 market study the Dutch Authority for Consumers and Markets (ACM) that it had received "many indications" of potentially abusive conduct by app store operators. One of the problems was limited access to the functionality of iPhone services such as the virtual assistance or chip used for payment solutions. Multiple complaints have been filed in

different jurisdictions concerning the potential for Apple to leverage its strong position in devices and associated operating systems into digital payment solutions. In contrast to smartphone manufacturers relying on Android, Apple retains exclusive access to the NFC chip in every iPhone, which enable contactless payments. Control over the chip and denial of access to third parties increases Apple's bargaining power in relation to financial institutions as well as creating barriers to entry for alternative contactless payment providers via the iOS ecosystem.

Denial of access and barriers to interoperability

More generally, complaints have been raised concerning **denial of access to key platform functionalities or barriers to interoperability** which prevent competitors to the platform from providing ancillary services or services which work seamlessly with those of the gatekeeper platform.

In December 2020, the US FTC announced that they were charging Facebook with "illegal monopolisation".³³ The complaint alleges that Facebook, over many years, has imposed anticompetitive conditions on third-party software developers' access to valuable interconnections to its platform, such as the application programming interfaces ("APIs") that allow the developers' apps to interface with Facebook. In particular, Facebook allegedly has made key APIs available to third-party applications only on the condition that they refrain from developing competing functionalities, and from connecting with or promoting other social networking services.

A complaint has also been filed against Apple by tracking app provider Tile. Tile reportedly argues that Apple has made it more difficult for users to operate its product on their smartphones compared to Apple's own rival application, FindMy (pre-installed in the iOS operating system), by selectively disabling features that allow for a seamless user experience.

Some interviewees also noted concerns around interoperability with Microsoft services. Since 2011, MS began bundling its dominant Office suite (rebranded in 2020 as MS 365) with cloud services (MS Azure) and since 2013 started integrating functionality so that users have features like single sign-on and seamless data transfer between applications that are operated on-site and in the MS Azure cloud. These practices may have contributed to MS becoming the fastest growing software company in the market segments concerned. However, they could also limit choice if providers of ancillary services are not able to develop offers which allow similar integration into the core services.

iii. What are the causes of the problem?

Digital platforms have been able to build a strong position in different business areas for a range of reasons.

A key challenge concerns **switching barriers**. For example, when it comes to mobile applications, even though in theory, customers could switch to a different device and associated OS when they make a new purchase, few do so. For example, A study by research firm GfK in 2011 said that 84% of iPhone owners planned to purchase another Apple handset when they replace their cellphone.³⁴ Challenges to porting stored user-

³³ <https://www.ftc.gov/system/files/documents/cases/1910134fbcomplaint.pdf>

³⁴ <https://marketrealist.com/2014/02/ecosystem/>

generated content on social media sites and cloud computing services or data lockers can also present a barrier to switching or multi-homing for both consumers and corporate users of these services.³⁵ Other factors which contribute to sustaining switching barriers and impeding multi-homing by consumers, even in cases where alternatives are readily accessible via the Internet include consumer inertia,³⁶ while contractual practices such as anti-steering or “most favoured nation” clauses, further limit the incentives for consumers to multi-home.³⁷

Moreover, for certain types of platforms, **strong network effects** can have a self-reinforcing effect on the leading position of the main player and make it difficult for users to switch, as noted in comments made in the consumer focus group for this study which highlighted the advantages of using platforms which were used by many others “to connect”.³⁸

At the same time, practices and behaviours which deter consumers from switching can result in certain platforms controlling access to a large share of the addressable market for the service concerned, which increases the necessity for merchants, product and service providers to participate in that platform, creating **dependency**.

Gatekeeper platforms may also be able to maintain their position and thwart potential entry by exploiting **extensive datasets** which they can gather as a result of their leading position. For some types of platforms, such as e-commerce, search, social media and services such as travel or entertainment, data can be used to create a more personalised experience for the consumer, increasing the perceived value of a platform in comparison with a newer or smaller competitor that lacks the same depth of data.

The ability of conglomerate platforms to **bundle services** together or use data from one segment to inform product development for another (including potentially data available via single sign-on services)³⁹ may also enable horizontal leverage, potentially undermining efforts by rivals to develop services in neighbouring markets.

Platforms which enable the sale of services, content or products of others also gather insights around the pricing, content and product development strategies of their rivals. If they are **vertically integrated**, exploitation of this knowledge could enable them to leverage their strong position in the platform into the sale of products and services downstream.

Financial strength built in one market where a platform has gatekeeper status, can also support the retention of its market position or leverage into related market by facilitating R&D expenditure, cross-subsidisation and acquisitions. Indeed, in addition to their own investments in new technologies, conglomerate platforms are often characterised by frequent and significant acquisitions of players that have developed a strong position in particular

³⁵ For example, transferring music purchased on iTunes to the Android system can be complex, requiring various manual interventions. <https://www.androidauthority.com/how-to-transfer-music-itunes-android-230232/> Similar drivers underlie challenges with vendor lock-in for corporations relying on cloud-based productivity applications. <https://journalofcloudcomputing.springeropen.com/articles/10.1186/s13677-016-0054-z#:~:text=The%20vendor%20lock%20in%20problem%20in%20cloud%20computing%20is%20the,or%20technical%20incompatibilities%20%5B23%5D.>

³⁶ Consumer inertia, coupled with a perception that existing services are “good enough” (see feedback from consumer focus group), can deter consumers from exploring other options. Although not a new phenomenon, consumer inertia can play an important role in the digital economy where services are mostly provided (and new services added) for “free”. See https://www.researchgate.net/publication/336663190_Consumer_Inertia_the_New_Economy_and_EU_Competition_Law

³⁷ Idem.

³⁸ ICF/WIK consumer focus group 2020

³⁹ The increasing popularity of commercial single sign-on services is likely to further increase the ability of conglomerate platforms such as Google and Facebook to gather data from other sites, facilitating targeting of advertising and development of services, as well as providing the potential for them to identify and enter attractive neighbouring markets.

segments or have developed specialised technologies. Examples include the acquisition of Skype by Microsoft in 2011,⁴⁰ the acquisition by Google of Android in 2005,⁴¹ YouTube in 2006⁴² and AI provider DeepMind Technologies in 2014.

iv. Who is affected and how?

The main players affected by the scale and conduct of gatekeeper platforms are **e-commerce merchants, service providers** and **application developers** which depend on those platforms for a significant portion of their sales or marketing.

Depending on the conduct of the platforms concerned, dependent business users could face excessive or discriminatory charges and unfair terms and conditions, which limit their ability to compete outside the platform ecosystem. Dependent application providers can be prevented from using functionalities available on the device to develop innovative products. The market shares, revenues and profits of business users and application developers can also be affected by the entry of platforms into their market segments on preferential terms (e.g. leveraging data from dependent users, advantageous positioning or cross-subsidisation).

The structural characteristics and behaviours that result in gatekeeper platforms maintaining and leveraging their market position can also affect the ability of smaller challenger platforms to expand and compete.

For example, the lack of a rich trove of personalised data may inhibit the entry and expansion of alternative social media platforms, or intermediaries in fields such as e-commerce and bookings, where recommendations play a significant role. The concentration of advertising revenues in the hands of leading platform conglomerates can also limit the potential for others to gain the revenues necessary to innovate in new technologies and services. Meanwhile, those players which do innovate in the provision of new services may find that they are threatened with the integration of a competing service to theirs into the ecosystem of a conglomerate platform, rendering their business unviable. There is a history of abuse in this area e.g. by Microsoft in relation to tying with its dominant Operating System, and similar practices affecting the provision of collaboration tools are under investigation.

Impacts on dependent users and alternative platforms are likely to ultimately be felt by consumers through:

- **Increased prices** for products and services in business segments where a high commission is charged (especially, but not only, where price parity restrictions apply). Consumers may also in the medium-term face higher prices as a result of advertising charges that are set at excessive levels or reductions in competition resulting from leveraging by gatekeeper platforms into previously competitive market segments.
- **Reduced choice** in areas where leverage by conglomerate platforms is practiced at the expense of rivals

It is often argued that these effects might be outweighed through the high levels of investment and innovation generated by gatekeeper firms and the synergies, efficiencies and security that conglomerate firms can achieve through vertical and horizontal integration.

⁴⁰ <https://news.microsoft.com/about/>

⁴¹ <https://www.androidauthority.com/google-android-acquisition-884194/>

⁴² <https://www.sec.gov/Archives/edgar/data/1288776/000119312506206884/dex991.htm>

Indeed, a 2014 study on the “economics of open and closed systems” by the UK CMA and French Competition Authority⁴³ notes there are four ways in which closed systems generate efficiencies: *“they ensure compatibility between components, they avoid freeriding, they allow user coordination, and avoid the drawbacks of standardisation.”* In addition, the study notes that closed systems can increase inter-system competition (which can lead to fierce competition “for the market”), and they can lead to an increased incentive to innovate and enter due to increased future profit expectations.

However, the study also highlights a number of benefits from open systems, noting that *“Open systems generate efficiencies in four ways: they maximise network effects, they maximise scale economies, they enable the system owner to commit not to renegotiate ex post the access fees with the component developers, once the specific investments in the system have been incurred and they enable the system owner to commit not to exploit the users who have joined the system, which increases incentives to join the system.”*

There is limited empirical evidence regarding the effects of open compared with closed approaches to digital platforms. However, in a 2018 research study,⁴⁴ Parker, van Alstyne and Jiang, show that at least as regards code organisations increasingly benefit from “orchestration over production”. The study authors note that while more closed systems such as Apple’s iOS, are able to charge higher prices for the core system, more open platforms foster greater application development. The study authors conclude that *“permissionless innovation can dominate vertical integration in cases where the number of developers becomes large because openness promotes R&D spillovers, which do not occur when the firm internalizes all production. Moreover, the platform owner does not always know which developers will succeed in the market and therefore which assets to acquire.”*

There is also evidence to suggest that openness can support technological innovation in related sectors.

For example, in the telecommunication sector, there is evidence that innovation via copper access connections was increased when multiple parties were given full access capabilities, compared with a situation where innovation through the upgrade of the lines to provide broadband was in the exclusive control of the incumbent and potentially cable operator.⁴⁵ Specifically, with open access to the infrastructure, there was a greater variety of equipment installed, and control over the equipment by service providers, enabled increased competition in quality (as measured via broadband speed). Research by Analysys Mason shows that open access to the underlying infrastructure through unbundling was associated with a five-fold increase in broadband speeds.⁴⁶

In a 2010 empirical study,⁴⁷ Boudreau found that open vs closed approaches to technological platforms also had an impact on innovation. Using data on 21 handheld computing systems, the author found that granting greater levels of access to independent hardware developer firms produced up to a fivefold acceleration in the rate of new handheld device development.

More generally, it is not clear that investments and innovation by a small group of large gatekeepers will outweigh the collective investments and innovation that could result from a market where the potential for innovation is more widely distributed. Indeed, evidence of the

⁴³

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/387718/The_economics_of_open_and_closed_systems.pdf

⁴⁴ Parker, van Alstyne, Jiang 2018: Platform ecosystems: how developers invert the firm

⁴⁵ See Nardotto et al 2015 Unbundling the incumbent: evidence from UK broadband
<https://onlinelibrary.wiley.com/doi/full/10.1111/jeea.12127>

⁴⁶ <https://www.analysismason.com/about-us/news/newsletter/disentangling-unbundling-broadband-amq-jul2012/>

⁴⁷

https://www.researchgate.net/publication/220535085_Open_Platform_Strategies_and_Innovation_Granting_Access_vs_Devolving_Control

innovative potential of smaller companies in digital platforms and applications may be inferred by the large number of acquisitions made by the large platforms of potential rivals or applications developers.⁴⁸

Meanwhile, while bundling may be convenient and potentially cost-efficient, the impact on competing players in the segments affected by bundling may mean that consumers may lose the option to rely on separate services or create their own bundles from a combination of services from different parties, reducing choice.

In a 2017 study by WIK which compared the market outcomes associated with neutral infrastructure compared with vertically integrated business models,⁴⁹ the authors noted that in Sweden, which was characterised by the widespread availability of standalone broadband connections, many consumers purchased different services from different sources (e.g. using mobile telephony in place of fixed telephony) and made use of online alternative such as streaming to traditional broadcast services. This contrasted with the increasing uptake of bundles from a single supplier in countries such as France and Spain, where elements of the bundle were not readily available separately.

If it is indeed the case, as suggested in interviews conducted for this study, that independent application and service providers can create new applications or innovate in ways that are not reflected in the equivalent applications that may be developed by gatekeeper platforms, a bundling strategy that reduces the market potential for entry in the individual elements could reduce the range of innovative options available. In addition, such a bundling strategy might also act as a retaliatory signal which deters the entry of players that might be seen as developing services that impinge on the potential expanded ecosystem of the gatekeeper platform.

Even if they may limit innovation, closed or vertically integrated systems might offer greater potential to facilitate the provision of more secure or curated services. If there is demand for curated or secure services from end-users that is distinct from “best-effort” or less secure services, this might justify the retention of a closed system as a consumer benefit. However, if given the choice, and the appropriate information about the risks or drawbacks, consumers would switch from a curated or secure service to less curated service that was characterised by a greater degree of choice or innovation, there would seem to be limited consumer benefit associated with preventing access by third party developers. In any event, even in this case, it is possible that consumer surplus might still be maximised if options are made available, alongside the appropriate information.

Returning to the issue of the potential for closed or vertically integrated systems to stimulate inter-platform competition, this holds true only in the case of platforms which could realistically be replicated by another party. However, if there are high barriers to entry, for example due to network effects, technology-based or data lock-in, alternative platforms may not emerge.

v. What is the size of the problem?

The problems identified, including unreasonable terms and discriminatory conduct have the potential to affect a large and expanding number of merchants and small businesses across Europe, which form a significant part of the EU economy.

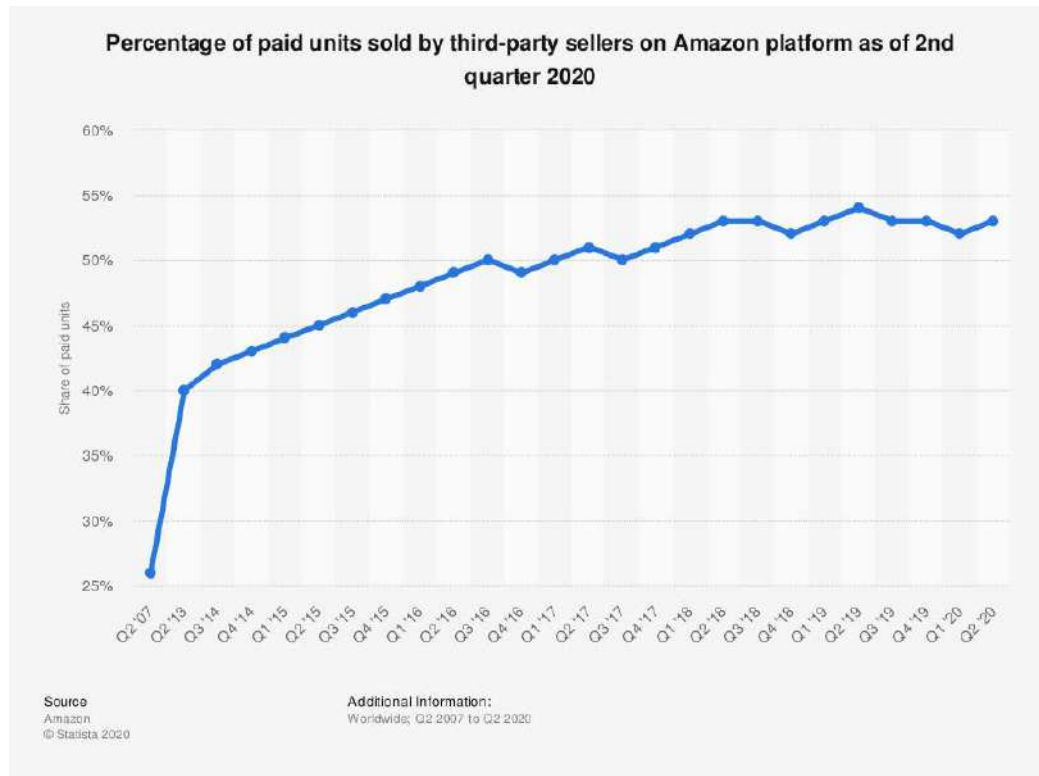
The degree to which businesses of all kinds have integrated into and may depend on the platform economy, is illustrated by the fact that, **more than 50%** of the units sold on Amazon are from third-party sellers. The French court, identified that **almost 25% of Amazon’s merchants in France where not present on any other platform** nor had or could afford a

⁴⁸ See for example the list of acquisitions made by Apple https://en.wikipedia.org/wiki/List_of_mergers_and_acquisitions_by_Apple and Alphabet (parent company of Google) https://en.wikipedia.org/wiki/List_of_mergers_and_acquisitions_by_Alphabet

⁴⁹ <https://www.stokab.se/Documents/Nyheter%20bilagor/A%20tale%20of%20five%20cities.pdf>

direct to customer online business.⁵⁰ The increasing importance of digital channels and the dependence, especially of small businesses, on such channels, means that the implications of discriminatory or unfair conduct by gatekeeper platforms could be far-reaching.

Figure 1. Percentage of paid units sold by third-party sellers on Amazon

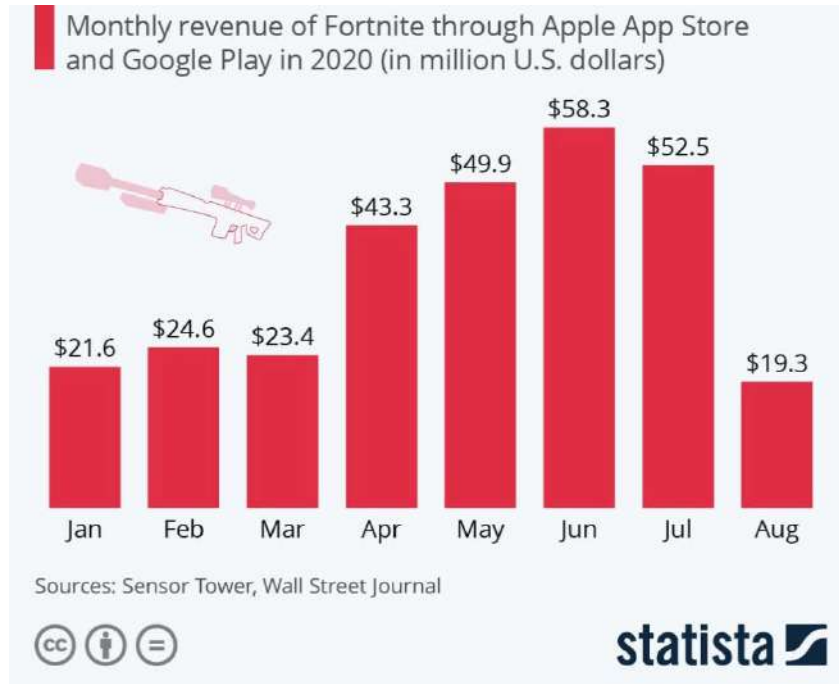


Developers of mobile software depend even more on large platform providers, as App stores are per design a bottleneck to reach consumers. During the recent disputes about Apple's AppStore commission fees, Epic Games circumvented Apples guidelines by giving customers (players of the popular online game Fortnite) direct discounts on their website. In reaction to Epic Games attempt to bypass Apple's AppStore commission fees (30%), Apple cancelled the developer account of Epic Games.

In the aftermath of this recent development we can quantify the impact of the gatekeeping power of AppStore providers and the magnitude of AppStore revenues on the overall bottom line of this popular software provider. As can be seen from the following graph, the revenues of Fortnite through the Apple App Store fell from \$58.3m in June to \$19.3m in August.

⁵⁰ <https://cdn2.nextinact.com/medias/jugement-tribunal-commerce-paris-amazon-2-sept-2019.pdf>

Figure 2. Impact of AppStore ban on Epic Games revenues



Although it may not be directly visible, the conduct of large gatekeeper platforms can also affect consumers' expenses. If Apple's commission fee were halved from 30% to 15%, the average prices of apps in the AppStore could fall, which would increase consumer surplus up to **€490m in the EU** according to our own estimations based on Statista data. Alternatively, part or all of these savings could have been reinvested in innovative features by the companies affected.

Smaller companies do not have much bargaining power to negotiate individual commission rates or prices for the intermediation service. Therefore, large platform providers can impose terms and conditions on SMEs. Documents that emerged during the recent US anti-trust hearings reveal that Apple discussed even higher rates internally before they defined the 30% rate that is well known today.

Estimates of the commissions charged by major platforms show that the App Store commission of 30% lies at the high end, but that some of the other major platforms also charged rates which were similar.

Table 1. Estimated commissions per platform and mother company⁵¹

02 - App Store	Google Play Store	01 – Alphabet	28%
02 - App Store	Apple App Store	02 – Apple	28%
15 – eCommerce	Amazon eCommerce	04 - Amazon	26%
15 – eCommerce	Zalando eCommerce	08 - Zalando	25%
15 – eCommerce	eBay eCommerce	09 – eBay	9%
15 – eCommerce	Otto Group eCommerce	19 - Otto Group	25%
18 – Travel	booking.com	17 - Booking Holding Inc	16%

⁵¹ Source: Statista 2020,

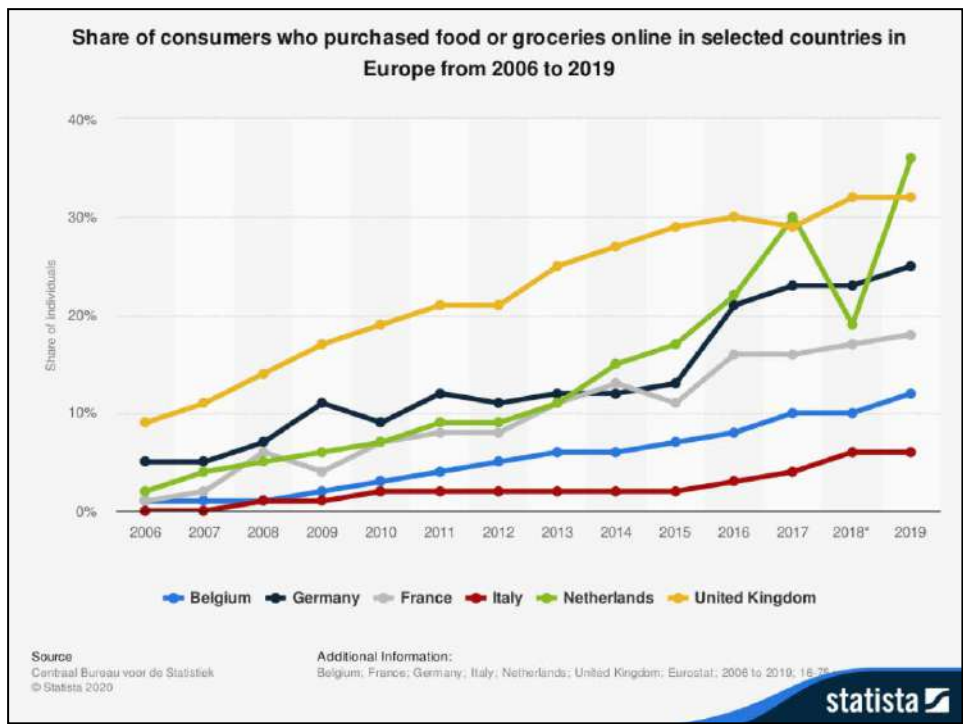
18 – Travel	Expedia	20 - Expedia	14%
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Behaviours such as bundling and tying can also have a negative impact on competing software and application providers. For example, the market share of Slack declined significantly following the bundling of Teams with Microsoft’s cloud-based Office software. The implications for innovation and prospects for market entry in segments that could be supplied by large gatekeeper platforms are likely to be much wider.

vi. How would the problem evolve in the status quo?

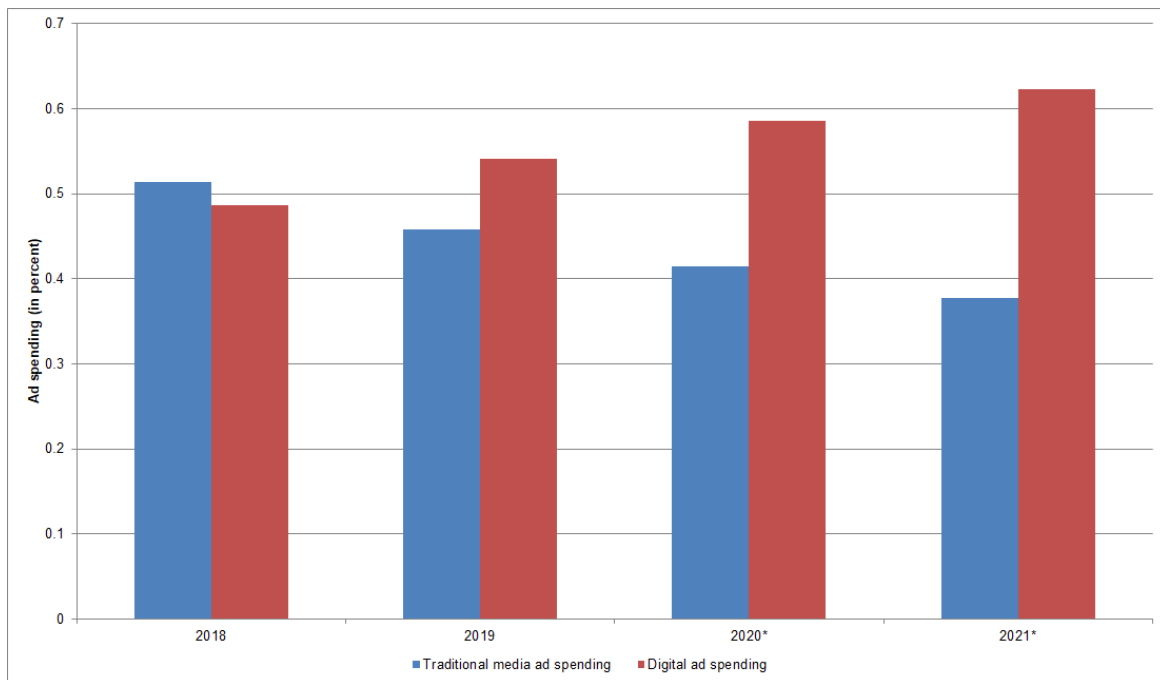
The identified problems already affect a high proportion of smaller businesses and application developers in the EU today. However, this proportion is expected to grow, as the traditional economy increasingly moves online, and as sectors such as groceries, which previously focused on physical sales exploit digital channels – a move that has been accelerated during the COVID crisis. Trends towards online purchasing of groceries in selected European countries are shown in the following chart.

Figure 3. Share of consumers purchasing groceries online in Europe (2006-19)



Reliance on online advertising is also expected to grow, as the figure below shows.

Figure 4. Traditional advertising versus online advertising (2018-21)



Source: techcrunch.com

As the proportion of online transactions increases, increasing the importance of this channel for suppliers, developers and advertisers, gatekeeper platforms are expected to maintain an equal or even higher share of the market in many segments. For example:

- **Mobile devices and OS:** The market for mobile electronic devices itself is diverse and competitive. Smartphones will be sold by more than 5 parties in Europe⁵². No dominant position can be observed. However, the underlying mobile operating system landscape is dominated by only two companies: Google (Android) and Apple (iOS) and many competitors have exited the market. This market does not tend towards competition in the foreseeable future. Consumers switch between devices with different operating systems, but churn rates are relatively low.
- **Desktop OS:** Microsoft has maintained a leading position in desktop Operating Systems and has set the de facto standard for productivity applications. Microsoft's market share in the desktop operating software market has been stable over the years and only slightly declining to 78% market share in January 2020⁵³.
- **Web-browsers** are often pre-installed with the operating system and compete with browsers from other vendors. Google Chrome is market leader with over 60% market share with Safari following only just below 20%. Chrome has gained clearly market-share in the last years and this is forecasted to continue (around 70% in 2022), profiting from Google's dominant position in the search engine market.
- **Search:** Google dominates with around 95% market share in the EU27 and the rest of the competitors (Bing, Yahoo!, Seznam, DuckDuckGo) following with shares of 3% and less. Google increased this share in last year and also increased its share in the related market for search advertising continuously in the last years.
- **Social Media:** worldwide the time spent online has increased roughly with 50% in the last 5 years to 153 minutes daily. However, in Europe, we only spent around 75

⁵² In sequence of marketshare: Apple, Huawei, Xiaomi, LG, Sony

⁵³ Statista 2020

minutes daily. It is not clear whether this remains or that a 'catch-up' is expected in the next 5 years. The dominant user share of Facebook's (above 90%) is expected to decrease but is compensated by the rising share of Instagram. Overall, FB controls over 90% of the social media-revenues and this is expected to stay until 2022. Other social media platforms are predicted to remain stable (LinkedIn, Snapchat, Twitter), while only Pinterest is showing signs of expansion.

- **Video Streaming:** the European market is controlled by 5 large parties (Netflix, Amazon, HBO, Sky and Dazn), which hold 90% of the market revenue. This concentration developed swiftly; in 2016, these companies held just over 50% of the market share. In 2019, this was 90% and 2021, it is expected that smaller parties have left the video streaming market. In terms of users, similar trend, but Amazon tops Netflix as Amazon Prime subscriptions are bundled (cheap) within their Prime bundle. This is due to the different approach, where Amazon observes overall revenue per user in their ecosystem where Netflix is establishing a profitable stand-alone streaming business.
- **Audio-Streaming;** market concentrates swiftly; the top 4 companies held in 2015 just above 50% of the market revenue, in 2019 this was already 95%. Stand-alone provider Spotify leads clearly (55% of users), before platform providers Apple and Amazon (around 25% and 10% of users). Stand-alone provider Deezer is also confronted with a 50% decrease in market share in the last 4 years.
- **E-Commerce:** smaller players still hold a considerable share of users (just above 30%) and an even higher share of revenue (above 60%). However, Amazon holds a similar share of users and is expected to grow strongly in the years to come (40% in 2022) at the expense of the smaller players (25% in 2022). From the other large players, only Zalando seems to grow in users and revenue (just below 15% in 2022).
- **Travel/booking;** There are different kind of players in direct competition to each other; "sharing economy" (C2C focus, like AirBnB), meta search engines (e.g. Expedia) and online booking platforms (B2C focus e.g. booking.com). Booking.com holds the market lead with 35% and is expected to grow steadily further to above 40% in 2022 at the expense of smaller parties. The 5 other large parties remain stable, apart from AirBnB which is growing and Thomas Cook which decreases. Competition concerns exist where these single-purpose platforms compete with large gatekeeper platforms like Google that dominates the search layer of the Internet value chain.
- **Advertising:** average advertising expenditures over all industries are rising continuously over the last five years (around 10% YoY growth). We distinguish 3 categories: display, search and video advertising: The market is concentrated; Google leads in 2 segments; display and search advertising. The video advertising market is dominated by Facebook (leading and Google second). For the advertising market an average compounded growth of around 30% until 2022 is expected, and Google is expected to cement its position.
- **Software as a Service (SaaS);** the number of companies using SaaS has steadily increased over the years; from 51% in 2011 to around 80% in 2019 (at least 1 application hosted in the cloud) and an additional 12% of companies is expected to do so in 2020, bringing the expected total over 90%. Therefore, the market is growing steadily. Despite Microsoft being market leader (16% revenue share), there are 4 other large market parties (Salesforce, Adobe, SAP, IBM) and multiple smaller parties, which hold the majority of the revenue share (just below 50%). MS and IBM are active in multiple market segments and compete against single product providers. Thus, the market for the moment is diverse and competitive. However, some stakeholders have expressed concerns that the bundling of MS's popular productivity

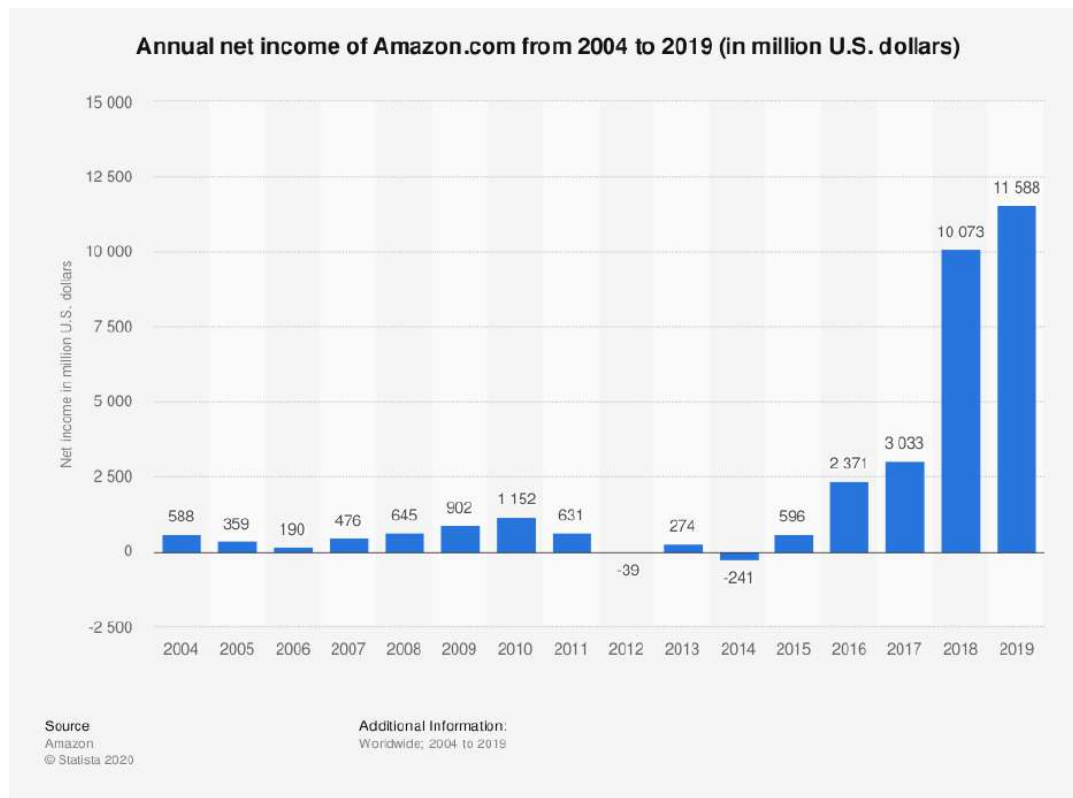
Suite Office with cloud storage (known as Office 365), could tilt the SaaS market in Microsoft's direction.

There is also a risk that **new devices and services** could become subject to gatekeeper control.

For example, another emerging business area, which has gained the interest of platform providers are **voice assistants**. Statista forecasts that this currently \$ 15 bln market will develop into a \$ 35 bln market by 2025. Amazon Alexa and Google Assistant are currently leading the market with both 31% share, but there are other large players like Apple with Siri, Alibaba with Ali Genie, Xiaomi's Xiao AI and Baidu Duer OS. EU Competition Commissioner Margrethe Vestager has expressed concern that as more and more consumers interact with more and more devices and services via voice assistants, there is a risk they become the new gatekeepers of the Internet, dictating what products and services consumers can access.⁵⁴ There is also a potential that conglomerate platforms might leverage their position in existing markets to secure a leading position in this new space.

Leading platforms have built a sizeable market capitalisation and warchest that is likely to aid them in maintaining their market position. The growth of Amazon's net income is shown in the following figure. Google's mother company Alphabet had a net income of \$ 34 billion in 2019, while Microsoft maintained a \$ 39 billion net income in 2019. The net income of these companies has for the most part steadily increased over time.

Figure 5. Annual net income of Amazon from 2004 to 2019



Source: Statista

High market capitalisations and cashflows have in turn supported extensive acquisition sprees. Platforms such as Google and Microsoft have purchased multiple small and

⁵⁴ https://ec.europa.eu/commission/presscorner/detail/en/speech_20_1367

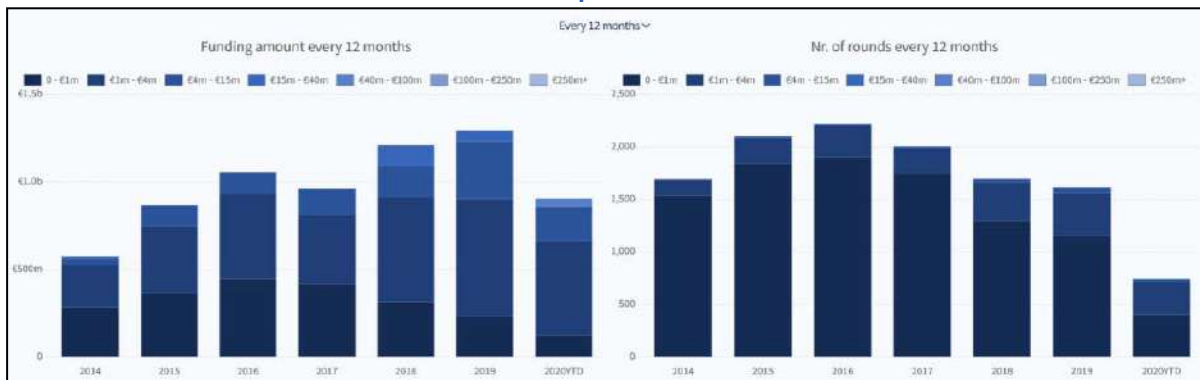
innovative companies over the years,⁵⁵ enabling them to establish wider ecosystems and avoid the expansion of potential rivals. Significant cashflows also provide the capability for large firms to cross-subsidise from their core market into neighbouring markets.

The potential effects of the ability of gatekeeper platforms to close off opportunities for smaller investors and innovative companies (e.g. through leverage or acquisition before rivals have had an opportunity to grow) can be seen by looking at trends in venture capital in sectors featuring gatekeeper firms compared with sectors which appear to be more contestable.

The following figures (left) displays on the horizontal axis the investments for a year in the EU27. The right figure displays for the same EU27 per year how many successful funding rounds there have been. The observed timeframe is 2014-2019, as the 2020 value is only year to date and cannot be compared yet.

The general observation is that in the observed timeframe there is trend towards increasing amount of invested capital in European companies. However, at the same time, the amount of successful funding rounds for companies searching to attract venture capital decreased. A reason could be that investors are getting reluctant to invest in companies, which develop products and services competing with dominant firms and if investments are done, the amount needs to be higher due to the market concentration. This will be further explored in the underlying market segments.

Table 2. Overall Investments in Companies seated in EU27



Source: Statista

In all observed underlying markets (Social Media, E-Commerce, Enterprise Software, Streaming, Music, Payment and Travel), there is trend to decreasing number of successful funding rounds.

Normally, one would expect to see market investments to follow the market grow and decline over the years when there is a healthy competition and innovation. Like in the growing Enterprise software market, investments are also growing and in the declining Music market where investments are decreasing.

However in markets where dominant players are present, one can observe, despite strong growth, a lower growth or even decline of investments. See the Social Media and E-Commerce markets, which develop further, but investments are stabilising or decreasing. Even in a relatively new market like Payment, which has become the new playing field of large players, decreasing investments over the last years are observed.

⁵⁵ See for example data on the number of acquisitions at <https://medium.com/swlh/gafa-what-can-we-learn-from-their-acquisition-strategies-ac4523be70e5>

Table 3. Investments in Social Media Companies seated in EU27

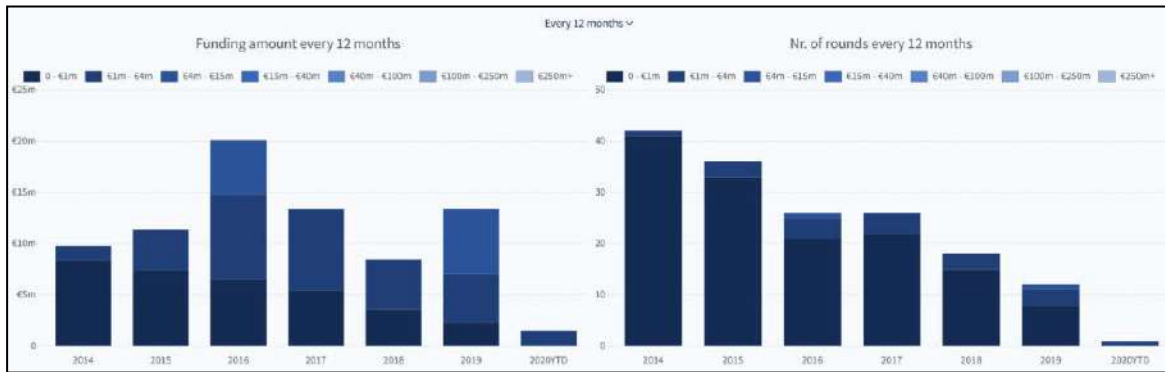


Table 4. Investments in Marketplace & E-Commerce Companies seated in EU27

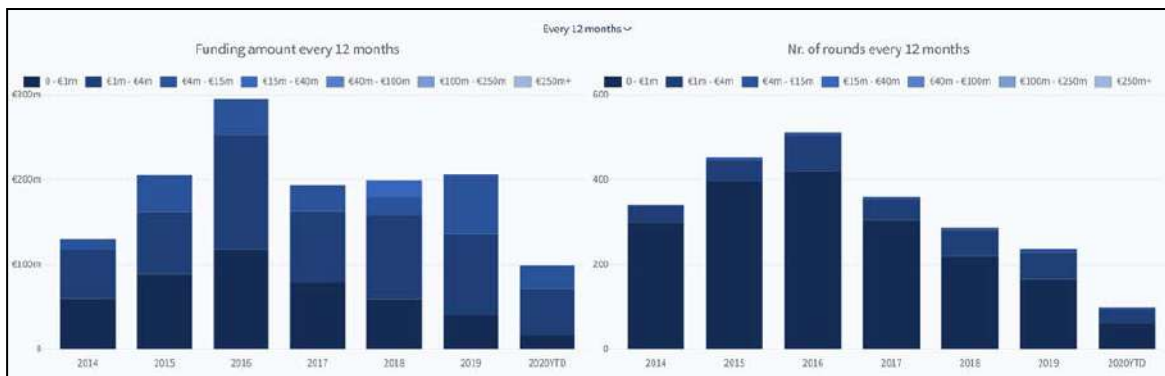


Table 5. Investments in Payment services companies in EU27

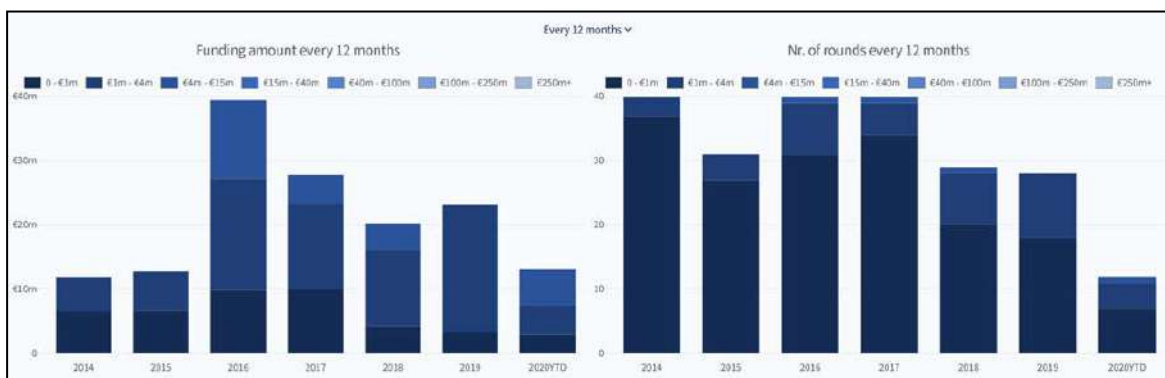
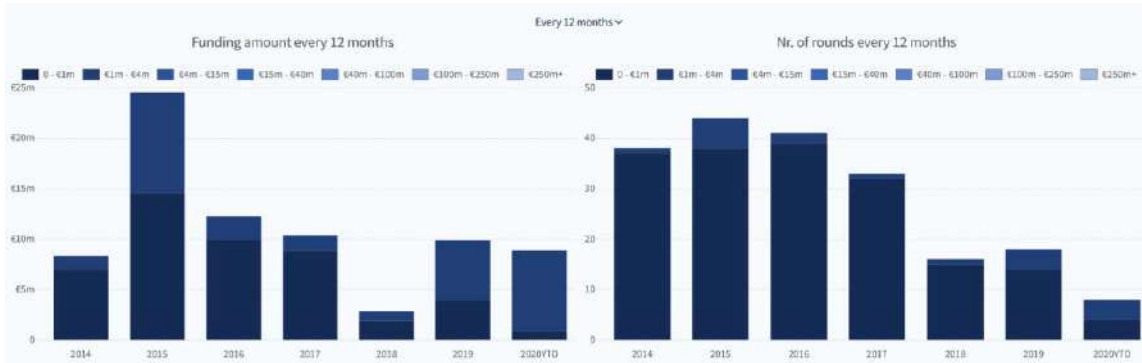


Table 6. Investments in Music Services Companies in EU27



vii. Why can't existing measures address the problem?

There are several existing measures at EU level which are applicable to digital platforms. However, none of these measures address the identified problems effectively, and in an efficient and durable manner.

Table 7. EU ex ante and competition regulation and identified issues in relation to gatekeeper platforms

Issue	Ex ante	Ex post (Article 102 TFEU) ⁵⁶
Unjustified tying and bundling	-	Cases
Restriction of access and use of business users to data about their customers/"Anti-steering"	GDPR FFDR P2B Regulation	Cases (anti-steering)
Prohibition of self-preferencing	P2B Regulation	Cases (new theory of harm not yet validated by the Court of Justice of the EU)
Device Neutrality	P2B Regulation	Cases
Leveraging, including consecutive practices	GDPR and ePD	Few cases
Interoperability/API	DCD GDPR	Cases
Barriers to switching/portability/data access	GDPR FFDR DCD	No (directly relevant) cases

⁵⁶ For details, see case studies in Annex 4.

Issue	Ex ante	Ex post (Article 102 TFEU) ⁵⁶
Other practices (not mentioned by the Commission), e.g. MFN, information asymmetries in data gathering	P2B Regulation UTD GDPR Omnibus Directive	Cases (MFN, Article 101 TFEU)

Existing ex ante measures at EU level are not capable of addressing the identified problems

The existing EU regulatory framework in some cases does not address the issues identified, whereas in other cases it is not wholly effective in addressing them.

For example, the current EU ex ante regulatory framework does not:

- mandate at a general and horizontal level data sharing/access obligations on online platforms vis-à-vis their business users, for example in relation to the customer data that the platform holds;
- prohibit or restrict the ability of platforms to favour their own products and services;
- subject “*technology platforms*” such as operating systems and browsers to neutrality obligations (e.g. a ban on favouring own apps and services or on restricting the removal by users of default apps and services).

Also, there is **no legal obligation for online platforms to implement appropriate tools such as application programming interfaces (APIs) that could enhance the exercise of the right to data portability under the General Data Protection Regulation (GDPR)**.⁵⁷

Further, **as long as they comply with the EU data protection framework, online platforms can use personal data that they have accumulated from different users and services to leverage their services.**

Information asymmetries with regard to end-users about the amount and use of data gathered by online platforms have so far been addressed through existing data protection and consumer legislation.

Several investigations for alleged infringements of the GDPR (e.g. unlawful processing, breach of transparency obligations) have been launched against some platforms.⁵⁸ However, a small number of decisions for infringements of GDPR by online platforms have been taken so far.

The Platform-to-business Regulation (P2B Regulation)⁵⁹ is the first piece of EU legislation specifically addressing platform-to-business relationships. It constitutes “*a first step to set rules for the online platform economy*”.⁶⁰ The P2B Regulation aims to address unfair

⁵⁷ Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation)

⁵⁸ [https://www.dataprotection.ie/sites/default/files/uploads/2020-02/DPC Annual Report 2019.pdf](https://www.dataprotection.ie/sites/default/files/uploads/2020-02/DPC%20Annual%20Report%202019.pdf), see page 40 et seq.

⁵⁹ Regulation (EU) 2019/1150 of the European Parliament and of the Council of 20 June 2019 on promoting fairness and transparency for business users of online intermediation services

⁶⁰ <https://ec.europa.eu/digital-single-market/en/news/qa-platform-business-small-businesses-and-other-online-operators>

practices by certain online platforms vis-à-vis business users, which are harmful for both the business users and ultimately consumers.⁶¹

However, the **P2B Regulation has a limited scope of application, it addresses a limited number of potentially harmful practices, it has a limited level of intervention regarding such practices (e.g. by in some cases mandating transparency requirements)**, and has been applied for a very short time, making it difficult to evaluate its effectiveness (it entered into application on 12 July 2020).

Regarding its scope of application, the P2B Regulation applies to online intermediation services (e.g. online marketplaces, app stores, social media for businesses, price comparison tools) and, only for certain provisions, to online search engines⁶² (namely article 5, on ranking, and article 7, on differentiated treatment).

However, the **P2B Regulation does not cover all platforms where potentially harmful practices such as self-preferencing are applied.**

For example, “*technological functionalities and interfaces that merely connect hardware and applications*”⁶³ (e.g. operating systems) are not covered by the Regulation. Browsers are also excluded, as well as ad-blocking, anti-virus and search optimisation software.

Online payment services and online advertising services are not covered either.⁶⁴ Cloud services are also out of the scope as there is no the element of intermediation.

Also, the Regulation applies to online intermediation services that allow business users to offer goods and services to consumers, but not to business-to-business intermediation services.⁶⁵ The Regulation neither applies to consumer-to-consumer platforms such as messaging apps.

Further, the P2B Regulation is a horizontal instrument that applies to certain types of online platforms across the board, regardless of whether they act as gatekeepers or not.⁶⁶ There are only a few provisions of the Regulation⁶⁷ which do not apply to providers of online intermediation services qualifying as small enterprises.⁶⁸ Online search engines qualifying as small enterprises do not however benefit from exemptions.

Regarding its limited level of intervention, the P2B Regulation does not prohibit or restrict some potentially harmful practices such as self-preferencing, or obliging business users not to offer goods or services at better conditions through other channels (the so-called most favoured nation or MFN clauses).

Furthermore, **the P2B Regulation does not prevent online intermediation services from freely determining their data access policies in relation to their business users and other third parties. They do not have any data sharing obligations and hence can**

⁶¹ Recital 2 P2B Regulation

⁶² The definition of online search engine includes digital services allowing users to perform searches of all websites, including voice searches (article 2(5) P2B Regulation).

⁶³ Recital 11 P2B Regulation

⁶⁴ “*online advertising tools or online advertising exchanges, which are not provided with the aim of the facilitating the initiation of direct transactions and which do not involve a contractual relationship with consumers*”.

⁶⁵ Article 2(2) P2B Regulation

⁶⁶ However, Recital 2 acknowledged “*the increased dependence*” of business users on online intermediation services, given “*the growing intermediation of transactions through online intermediation services, fuelled by strong data-driven indirect network effects*.”

⁶⁷ Articles 11 (internal complaint-handling system) and 12 (mediation)

⁶⁸ Commission Recommendation of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises, according to which small businesses would be those employing fewer than 50 persons and whose annual turnover and/or annual balance sheet does not exceed €10m.

prevent or restrict access by their business users to the data that they hold, including customer data.

Instead, the Regulation rather brings transparency regarding such practices. Transparency is key to prevent unfair practices by the concerned platforms⁶⁹ and can certainly help business users and also national authorities identify those practices and understand the rationale behind them.

However, given the recent entry into application of the P2B Regulation it is still premature to conclude whether those transparency requirements will reduce (and, if so, to what extent) platforms' practices which are potentially harmful for consumers.

Codes of conduct facilitating the application of article 9 of the P2B Regulation have not yet been put in place.⁷⁰

Transparency obligations with regard to consumers have also been introduced in the context of the EU consumer law review (the Omnibus Directive),⁷¹ to be implemented by member states by 28 November 2021, and applicable from 28 May 2022.

A further analysis of the relevance of existing EU legislation to problems identified in section i follows.

Unjustified tying and bundling

There is no specific ex ante regulation at EU level addressing unjustified tying and bundling by online platforms.

Restriction of access and use of business users to data about their customers

There is no specific EU legislation that imposes on online platforms an obligation to provide their business users with access to the data that they hold, including customer data. Specific data access obligations under EU legislation exist only in certain sectors (e.g. banking⁷² and automotive⁷³).

A way to categorise data is to split it into personal and non-personal data (or "*data other than personal*"). That categorisation is commonly used in EU legislation, including the P2B Regulation and the Digital Content Directive (DCD).⁷⁴

When access to data includes personal data, EU data protection legislation (namely the GDPR and the e-Privacy Directive)⁷⁵ must be observed. In particular, online platforms must follow the principles of lawfulness, fairness and transparency, purpose limitation, data minimisation, as well as accountability.⁷⁶

Sharing of non-personal data in a business-to-business context is generally unregulated at EU level. Thus, platform-to-business access to data is an area of contractual freedom and

⁶⁹ Recital 18 P2B Regulation

⁷⁰ Article 17 P2B Regulation

⁷¹ Directive (EU) 2019/2161 of the European Parliament and of the Council of 27 November 2019 amending Council Directive 93/13/EEC and Directives 98/6/EC, 2005/29/EC and 2011/83/EU of the European Parliament and of the Council as regards the better enforcement and modernisation of Union consumer protection rules

⁷² <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32015L2366>

⁷³ <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX:32018R0858>, to enter into application on 1 September 2020

⁷⁴ Directive (EU) 2019/770 of the European Parliament and of the Council of 20 May 2019 on certain aspects concerning contracts for the supply of digital content and digital services

⁷⁵ Directive 2002/58/EC of the European Parliament and of the Council of 12 July 2002 concerning the processing of personal data and the protection of privacy in the electronic communications sector

⁷⁶ Article 5 GDPR

online platforms can in principle deny or restrict access by business users to their non-personal data (e.g. anonymised and aggregated data).

However, the distinction between personal and non-personal data is becoming increasingly blurred.⁷⁷ As foreseen in the Free Flow of (non-personal) Data Regulation (FFDR),⁷⁸ the European Commission published non-binding guidance on how to handle datasets composed of both personal and non-personal data.⁷⁹ The guidance clarifies that:

- for datasets composed of personal and non-personal data, the GDPR applies to the personal data part of the dataset; and
- for datasets where personal and non-personal data are “*inextricably linked*” (i.e. separating personal and non-personal data would be impossible or economically inefficient), the rights and obligations under the GDPR should apply to the whole mixed dataset, even if “*personal data represent only a small part of the dataset.*”

The P2B Regulation highlights the ability to access data as an enabler for “*important value creation in the online platform economy*”,⁸⁰ as well as the importance of some types of data such as ratings and reviews concerning business users.⁸¹ However, it does not oblige online intermediation services to share any personal or non-personal data with their business users.⁸²

Instead, the P2B Regulation introduced an obligation for online intermediation services to disclose their data access policies vis-à-vis business users and also third parties, thereby bringing transparency.

In this context, as long as they comply with the transparency requirements in the P2B Regulation, online intermediation services can deny or restrict access to data for some business users, while can grant access to such data to other business users or third parties. They can also impose different conditions of access to data on business users, and also give preferential access to their data to business users that they own or control.

Although the P2B Regulation states that “*transparency measures could contribute to increased data sharing*”,⁸³ it is still too early to assess the impact of such measures on data sharing practices by online intermediation services.

Article 9 of the P2B Regulation sets out that providers of online intermediation services should include in their terms and conditions a description of whether:

- they have access to (personal or other) data provided by business users or consumers for the use of online intermediation services, or generated during the provision of those services (and, if so, the categories of data that they can access, as well as the access conditions);
- third parties have access to the above data and, if such access is not necessary for “*the proper functioning*” of online intermediation services, they should specify the

⁷⁷ Progress report of the Expert Group for the Observatory on the Online Platform Economy, *Work stream on Data*, page 9.

⁷⁸ Regulation (EU) 2018/1807 of the European Parliament and of the Council of 14 November 2018 on a framework for the free flow of non-personal data in the European Union

⁷⁹ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2019:250:FIN>

⁸⁰ Recital 33 P2B Regulation

⁸¹ Recital 33 P2B Regulation

⁸² Recital 35 provides that the requirements in the P2B Regulation in relation to access to data “should not be understood as any obligation for providers of online intermediation services to either disseminate or not to disseminate personal or non-personal data to their business users.”

⁸³ Recital 35 P2B Regulation

purpose of the data sharing (e.g. when a platform is monetising the data) and opt-out options for business users (if they exist); and

- business users have access to (personal or other) data provided by them “*in connection to*” the use of online intermediation services, or generated during the provision of those services, or to data provided by or generated through the use of online intermediation services by all business users and consumers (and, if so, the categories of data that can be accessed, as well as the access conditions).

Recital 35 clarifies that the description could refer to the general conditions of access to data, “*rather than an exhaustive identification of actual data, or categories of data.*” The purpose of that description is that business users understand whether they can use the data, also through third parties.⁸⁴

If business users are denied access to data, online intermediation services only need to publish a statement that no data access is given.⁸⁵

Regarding the ability of platforms to share with third parties the data provided or generated in the context of the provision of their online intermediation services, it is noteworthy that the P2B Regulation does not recognise a right for business users to opt-out from such data sharing when the data is not necessary for the functioning of the online intermediation services. Instead, online intermediation services must only be explicit about opt-out possibilities by business users, “*where they exist*”.

Article 8 of the P2B Regulation also obliges online intermediation services to describe in their terms and conditions the conditions of access (or the absence thereof) to the information that their business users have provided or generated (and that the platforms still maintain) following the expiration of the contractual relationship.

However, online intermediation services do not have any obligation to delete or give back the data provided or generated by a business user following the termination of their contractual relationship. This is without prejudice of EU data protection legislation.

Prohibition of self-preferencing

Under the existing EU ex ante regulatory framework, online platforms generally remain free to differentiate among their business users. One way of differentiating is by favouring goods and services offered by business users that they own or control (when they are vertically integrated) over competing business users.

Self-preferencing constitutes a form of differentiated treatment, which is a practice addressed in article 7 of the P2B Regulation. Despite acknowledging that differentiated treatment (and hence self-preferencing) can potentially limit consumer choice and also erode fair competition,⁸⁶ the P2B does not prohibit nor restrict the practice.

As in the case of access to data, the P2B Regulation brings transparency regarding self-favouring practices by certain online platforms, namely online intermediation services and search engines.

According to article 7 of the P2B Regulation, the concerned platforms must describe (in their terms and conditions in the case of online intermediation services) any differentiated treatment that they are giving (or might give) to products or services offered by themselves, or by business users controlled by them.

⁸⁴ Recital 33 P2B Regulation

⁸⁵ <https://ec.europa.eu/digital-single-market/en/news/qa-platform-business-small-businesses-and-other-online-operators>

⁸⁶ Recital 30 P2B Regulation

In the case of online intermediation services, the description must include “*the main economic, commercial or legal considerations for such differentiated treatment.*”

The description of the differentiated treatment should be provided in relation to:

- access to the data provided by business users or consumers;
- ranking or other settings applied by the online intermediation service provider that influence consumer access to goods/services offered;⁸⁷ and
- any direct or indirect remuneration applied for the use of the concerned platform.

Differentiated treatment can also be based on functionalities or interfaces (e.g. an operating system) that are connected to online intermediation services (e.g. an app store) and search engines. For example, if a provider of an app store gives a differentiated treatment based on its operating system to business users’ apps compared to that given to the apps owned by the provider, it must be transparent about that.

However, this provision does not prohibit or restrict self-preferencing or other favouring practices that platforms have built on functionalities such as operating systems or browsers (see below in relation to device neutrality).

Also similar to the case of access to data, it is still too early to assess the impact of transparency requirements in the P2B Regulation on self-preferencing practices by online intermediation services and search engines.

The first evaluation of the P2B Regulation, to be delivered by 13 January 2022, will assess, among other issues, the effect of the Regulation “*on any possible imbalances in the relationships between providers of operating systems and their business users*”.⁸⁸

Self-preferencing can also take place in the context of ancillary goods or services⁸⁹ offered through online intermediation services, and which are “*directly related to [...] the primary good or service [offered through the online intermediation service] in order to function.*”⁹⁰

This is the case when an online intermediation service privileges its own ancillary goods or services (e.g. repair services, car rental insurance, upgrades) over those provided by competing business users or third parties.

Article 6 obliges providers to describe in their terms and conditions:

- the type of goods or services offered by them or third parties through their online intermediation services; and
- whether business users (and if so on what conditions) can offer their own ancillary goods or services.

However, the Regulation does not restrict the ability for providers of online intermediation service to favour their own ancillary goods and services.

Device Neutrality

There is no EU legislation requiring device neutrality, or otherwise prohibiting or restricting potentially harmful practices that are built on functionalities or “*technology platforms*” such as operating systems, browsers, or software connecting hardware with software applications.

⁸⁷ This is in addition to the transparency obligations in article 5 regarding the main parameters determining ranking.

⁸⁸ Article 18(2)(e) P2B Regulation

⁸⁹ According to Recital 29, “ancillary goods and services should be understood as goods and services offered to the consumer immediately prior to the completion of a transaction initiated on online intermediation services to complement the primary good or service being offered by the business user.”

⁹⁰ Recital 29 P2B Regulation

Such practices can take various forms, for example:

- self-preferencing the apps owned or controlled by the platforms (or for example the platform's search engine in the case of a browser);
- access restrictions to hardware and software;
- restrictions to remove default apps;
- limits to the use of apps coming from alternative app stores; and
- exclusive use of software connecting the near field communication (NFC) antenna and eSIM with a given app (e.g. a payment app).

At this stage, neutrality obligations exist at EU level for internet service providers (ISPs). In particular, the Telecoms Single Market Regulation⁹¹ contains an open internet principle by which providers of internet access services "*shall treat all traffic equally [...], without discrimination, restriction or interference, and irrespective of the sender and receiver, the content accessed or distributed, the applications or services used or provided, or the terminal equipment used.*"⁹²

However, net neutrality provisions are limited to electronic communications networks, and do not cover devices connected to such networks that, together with operating systems and apps, channel content to the user.⁹³

Further, as stated above, the P2B Regulation does not apply to functionalities such as operating systems or browsers. The P2B Regulation does however address situations where online intermediation services and search engines apply differentiated treatment based on technological functionalities.

Online intermediation services and online search engines can still implement such differentiated treatment, but they need to comply with transparency requirements.

Yet, services such as payment apps are not subject to the transparency requirements in P2B Regulation. This is because payment services are excluded from the scope of the Regulation.⁹⁴

Leveraging, including consecutive practices

When combining data from different services and users to leverage their services, online platforms must comply with EU data protection rules.

The GDPR is the horizontal instrument regulating the conditions under which online platforms can collect and process personal data. The e-Privacy Directive complements the GDPR with additional rules on the confidentiality of communications, including on cookies and other tracking technologies.

Platforms must in particular comply with article 6 of the GDPR, which regulates the conditions for personal data processing to be lawful (e.g. consent, legitimate interest). This provision also addresses the conditions under which personal data initially collected for one purpose can be further processed for another purpose (further processing).

National data protection authorities (DPAs) have taken action against certain platforms for unlawful processing of personal data across different services. For example, based on the

⁹¹ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32015R2120>

⁹² Article 3(3) Telecoms Single Market Regulation

⁹³ Body of European Regulators for Electronic Communications (BEREC) report on the impact of premium content on electronic communications services (ECS) markets and the effect of devices on the open use of the internet, pages 24 et seq.

⁹⁴ Article 1(3) P2B Regulation

former data protection rules, some national data protection authorities acted against WhatsApp-Facebook data sharing for breaching data protection rules.⁹⁵

DPA's are also conducting several investigations for allegedly unlawful processing of personal data by online platforms in the context of different activities and services.⁹⁶ It is however uncertain when the decisions will be taken on these cases.

Interoperability/API

There is no specific EU regulation obliging online platforms to put in place interoperability solutions such as application programming interfaces (APIs). For interoperability in the context of data portability, see section below.

The Digital Content Directive (DCD) harmonises some aspects of business-to-consumer contracts concerning the supply of digital content and digital services. The Directive is not yet applicable and EU member states have until 1 July 2021 to transpose it into national legislation.

The DCD covers a wide range of digital services.⁹⁷ Inter alia, the DCD applies to services such as messaging apps, cloud storage and social media.⁹⁸ The directive applies to platform providers as long as they act as traders.⁹⁹ Platforms can be considered traders as long as *“they act for purposes relating to their own business and as the direct contractual partner of the consumer for the supply of digital content or a digital service.”*¹⁰⁰

Among other aspects, the DCD harmonises rules on the conformity of digital content or digital services with contracts.¹⁰¹ Objective (i.e. statutory) requirements¹⁰² are those that the consumer should expect from any contract, whereas subjective (i.e. contractual) requirements¹⁰³ are those that the trader and the consumer have agreed on in their contract. Under the DCD, contracts need to comply with both objective and subjective requirements.

The DCD defines interoperability as *“the ability of the digital content or digital service to function with hardware or software different from those with which digital content or digital services of the same type are normally used”*.¹⁰⁴ However, interoperability is not included in

⁹⁵ See for example:

- French DPA (CNIL) [formal notice](#) of 27 Dec. 2017 required WhatsApp to stop processing the personal data of its users without a legal ground;
- Italian DPA (Garante) [decision](#) of 4 October 2018 banned WhatsApp from sharing its users' data with Facebook; and
- Hamburg DPA [administrative order](#) of 27 September 2016 requiring Facebook to stop collecting and storing data of German WhatsApp users.

The former Working Party 29 (now the European Data Protection Board) also urged in 2016 and 2017 WhatsApp not to share data with Facebook.

⁹⁶ [https://www.dataprotection.ie/sites/default/files/uploads/2020-02/DPC Annual Report 2019.pdf](https://www.dataprotection.ie/sites/default/files/uploads/2020-02/DPC%20Annual%20Report%202019.pdf), see page 40 et seq.

⁹⁷ Article 2 DCD defines digital content as “data which are produced and supplied in digital form”, whereas digital service means “a service that allows the consumer to create, process, store or access data in digital form” or “a service that allows the sharing of or any other interaction with data in digital form uploaded or created by the consumer or other users of that service.”

⁹⁸ Recital 19 DCD

⁹⁹ Recital 18 DCD

¹⁰⁰ Recital 18 DCD

¹⁰¹ Article 1 DCD

¹⁰² Article 8 DCD

¹⁰³ Article 7 DCD

¹⁰⁴ Article 2(12) DCD

the list of objective conformity requirements under article 8 of the DCD. Interoperability is rather a subjective conformity requirement that can be incorporated into the platform-to-consumer contract.¹⁰⁵

Interoperability solutions have been explored in some areas of the platform economy. The EECC provides that national authorities may impose on the providers of number-independent interpersonal communications services obligations to make their services interoperable, including by relying on standards, if (i) those providers reach a significant level of coverage and user uptake; (ii) the Commission has found an appreciable threat to end-to-end connectivity between end-users and has adopted implementing measures specifying the nature and scope of any obligations that may be imposed by the national authorities; and (iii) the obligations imposed are necessary and proportionate to ensure interoperability of interpersonal communications services.¹⁰⁶

The electronic identification and electronic signatures (eIDAS) Regulation,¹⁰⁷ which sets the conditions under which EU member states should recognise publicly-issued national electronic identification means (eIDs) issued in another member state, does not however regulate use of eIDs issued by the private sector.

Against this background, the European Commission has encouraged online platforms to recognise publicly-issued eIDs, notably those notified under the eIDAS Regulation. The goal was to facilitate that users of online platforms use their own government-issued/recognised eID means whenever they access the platforms. The Commission published in 2018 draft principles and guidance on eID interoperability for online platforms.¹⁰⁸

Barriers to switching/portability/data access

At business-to-consumer level, the GDPR introduced a right to portability of personal data to strengthen individuals' control over their data.¹⁰⁹ The right also aims at facilitating switching, thereby enhancing competition and preventing consumer lock-in.

Under article 20 of the GDPR, individuals have the right to:

- receive the personal data concerning them (and which was provided by them) “in a structured, commonly used and machine-readable format”; and
- transmit such data to another provider.

Article 20 also gives individuals the right to have their personal data transmitted directly from one provider to another, “*where technically possible.*”

Individuals can exercise this right against platforms acting as data controllers, only when the processing is based on a contract or consent as the lawful basis for data processing.¹¹⁰

¹⁰⁵ Article 7 DCD

¹⁰⁶ EECC, art.61(2c). As noted by the Commission, this need could arise from a significant decline in usage of the numbers-based communications system, so that the public interest in end-to-end connectivity can no longer be assured through that system - either because a single number-independent ICS becomes the predominant mode of interpersonal communication; or because of a market fragmentation with a large number of different, non-interoperable communications applications: Executive summary of the Commission proposal: 2. Electronic communications services and end-user rights, p.3 available at: http://ec.europa.eu/information_society/newsroom/image/document/2016-52/executive_summary_2_-_services_40995.pdf

¹⁰⁷ Regulation (EU) No 910/2014 of the European Parliament and of the Council of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC

¹⁰⁸ https://ec.europa.eu/futurium/en/system/files/ged/draft_principles_eid_interoperability_and_guidance_for_online_platforms_final_draft_june_2018.pdf

¹⁰⁹ Recital 68 GDPR

¹¹⁰ Article 20(1)(a)

Data controllers must provide the right to data portability free of charge, with certain exceptions (e.g. the request is manifestly unfounded).¹¹¹

However, despite the recognition of a right to data portability, the European Commission found that individuals do not yet have the appropriate tools and standards that would allow them to exercise that right in a “*simple and not overly burdensome*” way.¹¹²

In this context, interoperability has a role to play. Whereas portability refers to the ability to transfer data from one provider to another, interoperability refers to the technical features that allow different systems to interact.¹¹³ Currently, at EU level there are no interoperability obligations for online platforms in relation to the right to data portability under the GDPR.

Recital 68 of the GDPR provides that individuals should receive their personal data in an interoperable format, and that providers “*should be encouraged to develop interoperable formats that enable data portability.*” However, the same recital clarifies that there is no obligation for providers to put in place processing systems which are technically compatible with other systems.

In the same vein, the guidelines by the European Data Protection Board (EDPB) on the right to data portability¹¹⁴ note that the aim of portability is to produce interoperable systems, not compatible ones.

The EDPB guidelines clarify that the obligation to transmit data in an interoperable format under article 20 of the GDPR does not imply that other providers must support such formats. Interoperability “*is the desired outcome*”, while “*structured, commonly used and machine readable are specifications for the means*”, according to the EDPB.

In this context, the EDPB guidelines ask providers to develop the means to address data portability requests, including “*download tools*” and APIs. Some platforms launched the Data Transfer Project¹¹⁵ with the aim to develop an open-source data portability platform. The platforms currently involved in the project include Apple, Facebook, Google, Microsoft and Twitter. This project is not operational yet.¹¹⁶

As stated in its communication on a European strategy for data,¹¹⁷ delivered in February 2020, the European Commission envisages a possible enhancement of the right to data portability to give individuals more rights over their data by setting “*stricter requirements on interfaces for real-time data access and making machine-readable formats compulsory for data from certain products and services*” (e.g. smart home appliances or wearables).

Regarding the enforcement of the right to data portability, the Irish data protection authority (the Data Protection Commission) is conducting, with the involvement of other national data protection authorities, investigations¹¹⁸ into alleged violations of portability obligations under the GDPR. It is uncertain when decisions on these cases will be taken.

Regarding the portability of non-personal data, the Digital Content Directive (DCD) gives consumers the right to retrieve, when the contract is terminated, any non-personal content

¹¹¹ Article 12(5) GDPR

¹¹² COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS A European strategy for data

¹¹³ Progress report of the Expert Group for the Observatory on the Online Platform Economy, *Work stream on Data*, page 32.

¹¹⁴ https://ec.europa.eu/newsroom/article29/item-detail.cfm?item_id=611233

¹¹⁵ <https://datatransferproject.dev/>

¹¹⁶ Progress report of the Expert Group for the Observatory on the Online Platform Economy, *Work stream on Data*, page 32.

¹¹⁷ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2020:66:FIN>

¹¹⁸ [https://www.dataprotection.ie/sites/default/files/uploads/2020-02/DPC Annual Report 2019.pdf](https://www.dataprotection.ie/sites/default/files/uploads/2020-02/DPC%20Annual%20Report%202019.pdf)

provided by the consumer or generated through the use of the digital content or digital service.¹¹⁹

Similar to the GDPR, consumers should be able to exercise that right free of charge “*and in a commonly used and machine-readable format.*”¹²⁰ However, compared to the personal data portability right under the GDPR, the scope of the right to retrieve non-personal content under the DCD is narrower as consumers can only exercise it when their contract is terminated.

Further, this consumer right to retrieve non-personal content has certain limits, as for example it does not extend to consumer data which have been aggregated with other data and cannot be disaggregated (or can only be disaggregated with “*disproportionate efforts*”) or to data only concerning the consumer’s activity.

The DCD also prevents traders from using any content other than personal data created by the consumer or generated through their use of the digital content or digital service, except in certain situations such as the two examples described in the above paragraph.¹²¹

Interoperability is not a statutory conformity requirement under the DCD so, unless stipulated in a specific contract, platforms are not subject to interoperability requirements vis-à-vis consumers.

At business-to-business level, under the existing framework business users do not benefit from the same instruments as consumers, notably a portability right, to port their data from one provider to another.

The Free flow of non-personal data regulation (FFDR) foresees voluntary self-regulatory codes of conduct (CoCs) to facilitate switching by professional users of data processing (i.e. cloud) services, and prevent vendor lock-in. The CoCs should be based on the principle of interoperability and “*take due account of open standards*”.¹²²

However, unlike the GDPR does for individuals’ personal data, the FFDR does not introduce a data portability right.

So far the cloud industry, through the cloud multi-stakeholder working group - SWIPO (Switching Cloud Providers and Porting Data),¹²³ has developed two codes on data porting across:

- cloud infrastructures (IaaS ‘Infrastructure-as-a-service’ portability);¹²⁴ and
- cloud-based applications (SaaS ‘Software-as-a-service’ portability).¹²⁵

The CoCs were due to have been implemented by 29 May 2020.

Information asymmetries in data gathering

The GDPR (articles 12 et seq.) contains transparency obligations for online platforms acting as data controllers with regard to their personal data processing operations, including when they collect personal data from individuals.

¹¹⁹ Article 16(4) DCD

¹²⁰ Article 16(4) DCD

¹²¹ Article 16(3) DCD

¹²² Article 6 FFDR

¹²³ <https://swipo.eu>

¹²⁴ <https://swipo.eu/wp-content/uploads/2020/07/SWIPO-IaaS-Code-of-Conduct.pdf>

¹²⁵ <https://swipo.eu/wp-content/uploads/2020/07/SWIPO-SaaS-Code-of-Conduct.pdf>

In 2019, the French data protection authority (CNIL) fined¹²⁶ Google €50m for lack of transparency, information and valid user consent regarding the processing of personal data of users of its Android operating system to serve them personalised ads.

Among other issues, CNIL found that Google's processing operations were "*particularly massive and intrusive*", considering the number of services concerned (at least 20, including Google search and YouTube) and that the company processed three categories of data (provided by individuals, generated through their activity, and inferred from the two previous categories).

Data protection authorities are currently conducting several investigations¹²⁷ for alleged breaches by some online platforms of their transparency obligations under the GDPR.

EU consumer legislation is also relevant regarding information asymmetries about the amount and use of data gathered by online platforms. The Unfair Terms Directive¹²⁸ provides that:

- standard terms that create a significant imbalance in parties' rights and obligations to the detriment of the consumer are deemed unfair and thus invalid;¹²⁹ and
- terms should be drafted in plain and intelligible language, thereby allowing consumers to be informed in a clear and understandable manner about their rights.¹³⁰

This Directive applies to all business-to-consumer contracts, regardless of whether the consumer pays a price. It thus covers "*contracts where consumer generated content and profiling represent the counter-performance alternative to money.*"¹³¹

Based on the above provisions, national consumer authorities, coordinated through the Consumer Protection Cooperation Network,¹³² investigated some social media platforms on allegedly unfair terms and conditions.¹³³

Following the investigation, Facebook amended its terms of service in April 2019.¹³⁴ Changes included adding an explanation that:

- the platform does not charge its users, but instead commercial content will be displayed to them, based on their profile and data;
- its business model revolves around providing targeted advertising services to traders by using that data.

Further, according to consumer authorities, Facebook clarified that, unless users give specific permission, the platform does not:

- sell users' personal data to advertisers; and

¹²⁶ <https://www.cnil.fr/en/cnils-restricted-committee-imposes-financial-penalty-50-million-euros-against-google-llc>

¹²⁷ [https://www.dataprotection.ie/sites/default/files/uploads/2020-02/DPC Annual Report 2019.pdf](https://www.dataprotection.ie/sites/default/files/uploads/2020-02/DPC%20Annual%20Report%202019.pdf), see page 40 et seq.

¹²⁸ Council Directive 93/13/EEC of 5 April 1993 on unfair terms in consumer contracts

¹²⁹ Article 3 Unfair Terms Directive

¹³⁰ Article 5 Unfair Terms Directive

¹³¹ Common position of national authorities within the CPC Network concerning the protection of consumers on social networks

¹³² https://ec.europa.eu/info/live-work-travel-eu/consumers/enforcement-consumer-protection/consumer-protection-cooperation-network_en

¹³³ https://ec.europa.eu/commission/presscorner/detail/en/IP_17_631

¹³⁴ https://ec.europa.eu/info/sites/info/files/live_work_travel_in_the_eu/consumers/documents/factsheets_on_the_changes_implemented_by_facebook.pdf

- share with advertisers information that can be used to directly identify users (e.g. contact information).

Facebook also clarified that it will be liable if users' data is mishandled by third parties.

Facebook's changes were accepted by consumer authorities.¹³⁵

The EU consumer law review (the Omnibus Directive) has strengthened information obligations for some online platforms vis-à-vis their end-users.

The Omnibus Directive will extend the scope of application of the Consumer Rights Directive (CRD)¹³⁶ by covering contracts where the consumer does not pay a price but provides personal data instead. This will make online platforms such as social networks subject to new requirements vis-à-vis consumers, including pre-contractual information obligations regarding the main characteristics of their services.

Further, under the amended CRD, users must be informed in cases where a price was personalised on the basis of automated decision making and profiling.

Competition law does not provide swift and durable solutions to the problem

As noted in the Table 7, a number of problems identified fall within the remit of competition law, and indeed cases have been brought, and in some cases concluded on several of the issues raised. However, as discussed below, difficulties in applying competition law concepts to some of the challenges involved in digital platforms, coupled with long timeframes and the backward-looking nature of competition law tools mean that they may not always be best-placed to address the problems identified in a durable manner.

Standard competition tools

Abuse of a dominant position (Article 102 TFEU)

Article 102 TFEU prohibits “any abuse by one or more undertakings of a dominant position within the internal market or in a substantial part of it, insofar as it may affect trade between Member States”.

The fact that an undertaking holds a dominant position is not in itself contrary to EU competition rules. However, an undertaking enjoying a dominant position is under a “special responsibility” not to engage in conduct that may distort competition.

An abuse of a dominant position is prohibited regardless of the means and procedure by which it is achieved, and irrespective of any fault or intent.

Contrary to article 101 TFEU, article 102 TFEU does not explicitly require that an abuse of dominance has an anticompetitive effect.

Case law nevertheless requires such a negative effect, considering that article 102 TFEU “is aimed at practices which may cause prejudice to consumers directly”, as well as “those which are detrimental to them through their impact on an effective competition structure”.¹³⁷

Based on case law, dominant companies can claim that their allegedly abusive behaviour is “objectively justified” or creates efficiencies that compensate for its anticompetitive effect.

¹³⁵ https://ec.europa.eu/commission/presscorner/detail/en/IP_19_2048

¹³⁶ Directive 2011/83/EU of the European Parliament and of the Council of 25 October 2011 on consumer rights, amending Council Directive 93/13/EEC and Directive 1999/44/EC of the European Parliament and of the Council and repealing Council Directive 85/577/EE

¹³⁷ Judgment of the General Court of 29 March 2012 in Case T-336/07 <http://curia.europa.eu/juris/liste.jsf?lgrec=fr&td=;ALL&language=en&num=T-336/07&jur=T>

Over the past years, the European Commission and NCAs have brought several abuse of dominance cases against the main digital platforms.

These include cases built on novel theories of harm, such as leveraging through self-preferencing (the Commission's 2017 Google Shopping decision¹³⁸ – appeal pending¹³⁹) or use of data protection rules as a standard for characterising an exploitative abuse of dominance (the German NCA's 2019 Facebook decision¹⁴⁰ – appeal pending).

Although Article 102 TFEU is, in principle, sufficiently flexible in dealing many of the issues identified in this study, in practice there are several disadvantages which include the following:

Objective of intervention: Ex post application of Article 102 TFEU is designed to protect competition rather than promote it. Therefore, it is ill-suited to address situations where the objectives of the intervention include ensuring that markets stay contestable.

Speed and effectiveness of intervention: Building a major abuse of dominance case against a large platform company may take a long time given the dynamic nature of the digital economy. Finding appropriate remedies may also prove challenging. For example, the European Commission opened its formal investigation into Google on 30 November 2010 and issued first of its (so far) three decisions on 27 June 2017. Google's appeal against this *Shopping* decision is still pending. In relation to remedies, Google's rivals alleged in November 2020 that “as of today, the decision did not lead to Google changing anything meaningful”.¹⁴¹

Dominance test: Multisided markets may make the definition of relevant markets, and consequently finding of dominance, with traditional methods more challenging. Partly in view of this, the European Commission is currently evaluating whether and how to update its Notice (97/C 372/03) on the definition of relevant market for the purposes of EU competition law¹⁴². In addition, an intervention threshold based on dominance typically concentrates on one market, whereas many of the issues identified in this study may relate to wider ecosystems (which may exhibit dominated and non-dominated markets).

High legal thresholds to prove abuse: In addition on the burden of the proof for the competition authority to show the anticompetitive effect (in the vast majority of cases) of the alleged abuse of dominance, case law on essential facilities makes it difficult to force dominant operators to grant access to data or information necessary for interoperability, which should be proven to be “*indispensable*” for the access seeker.

Anti-competitive agreements (Article 101 TFEU)

Article 101 TFEU prohibits “*all agreements between undertakings, decisions by associations of undertakings and concerted practices which may affect trade between member states and which have as their object or effect the prevention, restriction or distortion of competition within the internal market*”.

¹³⁸ European Commission decision of 27 June 2017 in Case 39.740 *Google Search (Shopping)* https://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=1_39740

¹³⁹ Pending EU General Court judgment in Case T-612/17 *Google and Alphabet* <http://curia.europa.eu/juris/liste.jsf?lgrec=fr&td=%3BALL&language=en&num=T-612/17&jur=T>

¹⁴⁰ The Bundeskartellamt decision of 6 February 2019 in Case B6-22/16 <https://www.bundeskartellamt.de/SharedDocs/Entscheidung/DE/Entscheidungen/Missbrauchsaufsicht/2019/B6-22-16.html>

¹⁴¹ Open letter of 12 November 2020 to EU competition commissioner Margrethe Vestager, signed by 135 companies and 30 industry associations https://www.enpa.eu/sites/default/files/inline-files/Final_ENG_Joint%20Letter%20of%20Online%20Intermediaries%20to%20M.Vestager_ENG%20-%202011.11.2020.pdf

¹⁴² <https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12325-evaluation-of-the-commission-%20notice-on-market-definition-in-eu-competition-law>

By object infringements are the most serious ones that typically aim to fix prices or share markets, for which an anticompetitive effect is presumed.

Therefore, in these cases, the competition authority is not required to show an anticompetitive effect.

Anticompetitive agreements can be exempted from the prohibition if their procompetitive effects compensate for their anticompetitive effects.

For this study, Article 101 TFEU is mainly relevant in relation to most favoured nation (MFN, or parity) clauses that some two-sided online platforms include in their contracts with the suppliers they host.

These clauses prevent suppliers from offering lower prices or other better terms, such as better customer service or a wider product range, on other platforms or their own websites.

Some European NCAs have challenged the MFN clauses on the grounds that they could violate article 101 TFEU.

In response, platforms have either stopped using the clauses or narrowed their scope so that they only apply to prices and other terms on the supplier's own website (the so-called narrow MFN clause).

The assessment and qualification of platform MFN clauses under competition rules is subject to considerable debate, and the European case law is still developing, with divergent approaches.

The Commission's ongoing review of the Vertical Agreements Block Exemption Regulation (VBER) could provide some clarity on the matter¹⁴³.

“Competition plus”

Abuse of economic dependence concept

While abuse of dominance is the only unilateral conduct prohibited by EU competition law, article 3(2) of Regulation 1/2003 allows member states to adopt stricter national laws that prohibit other unilateral conducts.

Recital 8 of the Regulation explicitly says that *“these stricter national laws may include provisions which prohibit or impose sanctions on abusive behaviour toward economically dependent undertakings”*.

Therefore, some countries have introduced provisions that also regulate behaviour known as abuse of superior bargaining power or abuse of significant influence, including where neither the supplier nor the distributor holds a dominant position in a specific market¹⁴⁴.

Such provisions can be found, for example in Belgium, France and Germany.

Depending on the details of the national provisions, the concept of economic dependence could in principle be effectively used to address at least some of the competitive harms. For example, the proposed 10th amendment to the German Competition Act would among other things amend Section 20 GWB (on prohibited conduct of undertakings with relative or superior market power) to allow an early intervention below the dominance threshold in unfair practices that may lead to inefficient market tipping (for details, see Annex 5: Germany).

Market investigation powers

¹⁴³ <https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/1936-Evaluation-of-the-Vertical-Block-%20Exemption-Regulation>

¹⁴⁴ See Renda A. et al. (2012), *The impact of national rules on unilateral conduct that diverge from Article 102 TFEU*, Study for the European Commission; Andrea et al. (2014), Study for the European Commission on the legal framework covering business-to-business unfair trading practices in the retail supply chain <https://op.europa.eu/en/publication-detail/-/publication/c82dc8c6-ec15-11e5-8a81-01aa75ed71a1>

In the UK, the Competition and Markets Authority (CMA) can undertake an in-depth market investigation¹⁴⁵, led by a group drawn from the CMA's panel of members. The CMA's panel comprises individuals from a variety of backgrounds (economics, law, public sector, business), all eminent in their field.

The market investigation is undertaken independently of the CMA Board and the group are the sole decision-makers in the investigation. Market investigations consider whether there are features of a market that have an adverse effect on competition (AEC).

If there is an AEC, the CMA has the power to impose its own behavioural or structural remedies, but it can also make recommendations to other bodies such as sectoral regulators or the government.

Following such a market investigation, the UK implemented the Open Banking package of measures to increase competition in the retail banking market, including a requirement that the major high street banks develop and implement a common open Application Programming Interface (API) standard for banking.

National interventions risk fragmentation in the single market

If the identified issues are not tackled at EU level, there is a risk that EU member states act on their own, thereby increasing legal fragmentation across the internal market. Fragmentation already exists with regard to platform-specific regulation, as in the cases of transparency obligations and most favoured nation or MFN clauses.¹⁴⁶

For example, transparency obligations for online platforms vis-à-vis consumers were introduced in 2016 in France ahead of European legislation through the so-called Loi Lemaire.¹⁴⁷ The scope of the law, as well as its transparency obligations (further developed through a decree),¹⁴⁸ differ from those recently introduced at EU level through the Omnibus Directive.

The P2B Regulation does not prohibit or restrict MFN clauses by online intermediation services but rather imposes transparency requirements regarding such clauses. Article 10 of the P2B Regulation provides that, when online intermediation services restrict the ability of their business users to offer goods and services under more favourable conditions through other means, they should include in the terms and conditions the grounds of that restriction.

This however does not affect prohibitions to MFN clauses established through national legislation, as long as they comply with EU law. Countries such as Austria,¹⁴⁹ Belgium,¹⁵⁰

¹⁴⁵ Part 4 of the Enterprise Act 2002 <http://www.legislation.gov.uk/ukpga/2002/40/contents>

¹⁴⁶ MFN clauses refer to a potentially harmful practice by online platforms which consist of restricting the business users' ability to offer their goods and services at different conditions (including lower prices) through other means.

¹⁴⁷ LOI n° 2016-1321 du 7 octobre 2016 pour une République numérique

¹⁴⁸ Décret n° 2017-1434 du 29 septembre 2017 relatif aux obligations d'information des opérateurs de plateformes numériques

¹⁴⁹ UWG, §1 and annex 32,

<https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=10002665>

¹⁵⁰ Loi relative à la liberté tarifaire des exploitants d'hébergements touristiques dans les contrats conclus avec les opérateurs de plateformes de réservation en ligne, http://www.ejustice.just.fgov.be/cgi_loi/change_lg.pl?language=fr&la=F&cn=2018073014&table_name=loi

France,¹⁵¹ and Italy¹⁵² have introduced ex ante regulation prohibiting MFN clauses by online travel agencies.

Further, given the light-touch approach under the P2B Regulation regarding other potentially harmful practices such as self-preferencing or refusal to access to data, EU member states could establish more stringent rules at national level to tackle those practices.

As shown in Annex 5, some EU member states are already acting on their own, including in some cases through legislative proposals, to address the same or similar gaps as those that could be tackled through the EU ex ante measure.

This is for example the case of France, through the draft law to enhance consumer choice online,¹⁵³ and Germany, through the bill for the 10th amendment to the German Competition Act (GWB-Digitalisierungsgesetz)¹⁵⁴

These measures could serve to address legislative gaps at national level, but they create the risk of introducing inconsistent or conflicting regimes between different member states, and potentially introducing rules which could conflict with measures taken at EU level. The persistence of problems provides further evidence that existing measures are insufficient.

The case studies included in Annex 4 of this report, provide evidence of a catalogue of problems often involving the same large platforms over a period of years, sometimes with different variations on the same behaviour – such as the bundling practices of Microsoft, respectively concerning Windows Media, Internet Explorer, bundling of Office with cloud services and recently the filing of a complaint into bundling of Teams.¹⁵⁵

Meanwhile, in a similar fashion to the previous cases which involved exploitation of Microsoft's position in PC operating systems to leverage into downstream markets, similar complaints have been made (and abuse found in certain cases) around the potential exploitation of operating systems developed by Apple and Google, which power a large portion of handheld devices.

The fact that **problems such as these keep recurring**, provides an indication that existing measures such as competition law have not been effective in addressing the issues in a systematic and long-term manner.

Technological and market developments will not solve the problem

Entry of new platforms targeting the same or similar customer needs could reduce the reliance on today's gatekeeper platforms. However, there are significant barriers to the emergence of new platforms, and it seems unlikely that challengers to the incumbents could gain a foothold in the market in the medium term.

A key barrier is that **some platforms such as social media by their nature benefit from network effects**. For example, in the context of focus groups conducted for this study, one consumer noted that the main reason they used platforms was “because everybody else

¹⁵¹ Articles L311-5-1 et seq. of Code du tourisme, https://www.legifrance.gouv.fr/affichCode.do;jsessionid=B4CE976C130CC7CDDCCA16F3884627CE.tplgfr25s_1?idSectionTA=LEGISCTA000030992951&cidTexte=LEGITEXT000006074073&dateTexte=20171026

¹⁵² Section 166 of Legge annuale per il mercato e la concorrenza, www.normattiva.it/uri-res/N2Ls?urn:nir:stato:legge:2017-08-04;124!vig=

¹⁵³ PROPOSITION DE LOI *visant à garantir le libre choix du consommateur dans le cyberspace*

¹⁵⁴ GWB-Digitalisierungsgesetz, government bill of 9 September 2020 www.bmwi.de/Redaktion/DE/Downloads/Gesetz/gesetzentwurf-gwb-digitalisierungsgesetz.pdf?__blob=publicationFile&v=6. On 30 November 2020, the bill was before the Bundestag's Committee on Economic Affairs and Energy.

¹⁵⁵ https://slack.com/intl/en-be/blog/news/slack-files-eu-competition-complaint-against-microsoft?eu_nc=1

uses them”, which was important in making connections, while another noted that “using a platform that everybody else uses makes things very easy”.¹⁵⁶

Consumers participating in the focus group also noted that there were benefits in using large platforms that provide a range of services. This may mean that consumers perceive advantages from large platforms which form part of a wider ecosystem. On the other hand, it also tends to support the theory that platforms benefit from scale and scope effects, which would make it difficult for small scale players to make an impact in the market, and create barriers to the expansion of new entrants.

Technological restrictions on competing platforms e.g. on proprietary devices or lock-in effects caused by challenges in porting data from one platform to another may also impede new entrants from gaining a foothold, and are not readily solved in the absence of regulatory intervention. Imbalances in the availability of data which provides benefits to the data controlled such as the ability to target advertising and tailor product offerings, may also inhibit the expansion of alternative providers, and are likely to be self-sustaining.

The self-sustaining and enlarging nature of the gatekeeper positions held by large platforms is evidenced by the limited progress that alternative platforms have made in gaining market share in segments which are dominated by large conglomerate platforms, and by the ability of gatekeeper platforms to rapidly gain share in products and services which can be bundled with their core offer or which can be displayed in a preferential light.

Examples of how major platforms have successfully managed to extend the scope of their ecosystem, cementing their market position, include the extension of Google’s ecosystem into video with the acquisition of YouTube, Apple’s expansion into music and payment services, the rapid take-up of Microsoft Teams following its integration with the Office Suite, and the greater take-up of Prime Video where it is bundled with Amazon Prime.¹⁵⁷

The role of major gatekeeper platforms in various aspects of society and commerce is such that these platforms have become essential to a significant proportion of consumers. In a survey by Statista of US Internet users, 69% of respondents reported using Google services and products on a daily basis, while this was the case for 54% of respondents in relation to Apple and 72% in relation to Facebook. 33%, 24%, 25% and 32% of respondents respectively considered that Google, Apple, Facebook and Amazon were “an integral part of their life”.¹⁵⁸ User sentiment and inertia may thus also serve to sustain the position of leading platforms such as these.

Much has been made on the potential for technological innovation and creative destruction to address the identified problems.

For example, at the time when Microsoft was found to be dominant in operating systems,¹⁵⁹ PCs were the predominant digital device used by businesses and consumers. Arguably, the market fragmented once alternative devices such as smartphones and tablets began to proliferate, affecting Microsoft’s market position in Operating Systems – when the market is defined in a wide sense. The mix of devices had evolved to such a degree that as of July 2020, the leading operating system overall was Android, with a 39% market share, with Windows maintaining only 36% of the global market, and iOS just 14%.¹⁶⁰

However, an analysis of the problems illustrated in competition cases as well as the case studies and interviews conducted for this report, show that similar problems, to those originally identified (and addressed through remedies) emerged (e.g. in relation to Android /

¹⁵⁶ ICF/WIK consumer focus group August 2020

¹⁵⁷ Both of these examples are explored in further detail in Annex 4: case studies

¹⁵⁸ Statista survey conducted March 2017

¹⁵⁹ <https://ec.europa.eu/competition/sectors/ICT/microsoft/investigation.html>

¹⁶⁰ <https://gs.statcounter.com/os-market-share>

Google chrome and the Apple app store), and that merchants, application providers and potential competitors to the major platforms have been disadvantaged, with knock-on effects on pricing and innovation from those players. Creative destruction may thus have created new market segments, providing significant innovation benefits in the process, as well as benefits to business users relying on the platforms. However, in time, it is also apparent that the drivers of these innovations were able to exploit their position. Thus, developments in the past decade are suggestive that there may be **structural challenges associated with certain types of digital platform**, that are likely to persist notwithstanding the development of new devices, potentially new platform categories and their accompanying ecosystems.

viii. Previous impact assessments

The problems identified in this study in relation to gatekeeper platforms are not new. Some of the same problems were identified in the context of the Impact Assessment accompanying the proposal for the Platform to Business Regulation in 2018.¹⁶¹

Specifically, the P2B Impact Assessment noted that EU merchants trading online face a series of potentially harmful trading practices where their trade is intermediated by online platforms, and that “**evidence shows that these practices – such as delisting without statement of reasons or sudden changes of Terms and Conditions – can have a significant impact on businesses**”.

The Impact Assessment accompanying the P2B Regulation also noted the increasing importance of online platforms in intermediating transactions between consumers and businesses, and observed that **businesses are increasingly dependent on online platforms**. Strong data-driven network effects, together with a significant “fear” factor, resulted in an imbalance in bargaining power between merchants and platforms.

c. Why should the EU act?

i. Necessity of EU action

The intrinsic and systemic cross-border nature of the services provided by the large online platforms implies that no Member State alone can reach the objectives effectively. Moreover, large online platforms benefiting from significant economies of scale and acting as gatekeepers may be legally established in one Member State, but provide their services to almost the entire EU population.

Stakeholders interviewed for this study¹⁶² were of a common view that an EU-wide solution was needed, as was the electronic communications regulators’ group BEREC, and the expert group convened for this study.¹⁶³

Although some national administrations such as those in France and Germany, have taken steps to implement national measures, these may be seen as supportive of and potentially complementary to EU solutions. Indeed, the report prepared by the French Economic Affairs Commission in the context of the draft legislation under preparation in France recommends that France should fully support the European Commission’s efforts to create ex ante regulation of large digital platforms via the Digital Services Act.

¹⁶¹ <https://ec.europa.eu/digital-single-market/en/news/impact-assessment-proposal--promoting-fairness-transparency-online-platforms>

¹⁶² See Annex 7

¹⁶³ See Annex 6

ii. Added value of EU action

EU in this field would create additional clarity not only for business users of platforms, but also gatekeeper and other platforms themselves.

Specifically, in the absence of an EU measure, there is a high risk that with national approaches, business users or application developers seeking to serve the single market will need to understand a range of diverse rule-sets and pursue actions in multiple countries across the EU, which is likely to create barriers to expansion, especially for start-ups and SMEs.

Moreover, a lack of harmonised rules in this space risks complicating the regulatory landscape faced by platforms operating on a pan-European or indeed global basis.

Harmonised rule-sets are also important for European consumers and businesses, to ensure that they benefit from a similar freedom of choice across the EU as well as harmonised application of any rules that may directly affect them, such as potential rules aimed at operationalising data portability. Consumers and businesses should also be the ultimate beneficiaries of regulations which foster the entry and expansion of application developers, e-commerce and service providers, creating a rich and innovative ecosystem of suppliers in the digital value chain.

d. What should be achieved?

In view of the threats to the internal market as well as the challenges to competition created by the conduct of large gatekeeper platforms in an increasingly digital economy, the aim of a potential ex ante measure should be to ensure the proper functioning of the internal market by promoting a fair and contestable online platform environment.

More specifically, as we have identified problems as regards unfair conduct towards business users as well as barriers to competition and threats to the integrity of the single market, the ex ante measure should seek to:

- Address gatekeepers' unfair conduct;
- Address market failures to ensure contestable and competitive digital markets for increased innovation and consumer choice; and
- Enhance coherence and legal certainty to preserve the internal market

e. Who should fall within the scope of any measures?

Defining the appropriate scope for a Regulation is an essential element in ensuring that the Regulation is capable of addressing the identified problems. A scope which is too wide could result in the Regulation creating unnecessary burdens for firms which are not associated with or affected by the identified problems. On the other hand, a scope which is too narrow could result in important aspects of the problem not being addressed.

The P2B Regulation addresses the regulation of “**online intermediation services**”.¹⁶⁴ Online intermediation services are defined as services which (i) constitute “information society services”¹⁶⁵; (ii) “allow business users to offer goods or services to consumers, with a view to

¹⁶⁴ Article 2(2) P2B Regulation.

¹⁶⁵ Information Society Service is defined as ‘any service normally provided for remuneration, at a distance, by electronic means and at the individual request of a recipient. The key elements in the definition are (i) the service must be provided for remuneration; (ii) at a distance; (iii) by electronic means; and (iv) at the individual request of the recipient of the service’: Directive 2015/1535 of the European Parliament and of the Council of 9 September

facilitating direct transactions between those business users and consumers”; and (iii) provide services to business users on the basis of contractual relationships. The Regulation separately defines “online search engines”¹⁶⁶.

However, a narrow interpretation such as this would fail to capture a number of the “platforms”, that have been identified in the context of this study to create problems, including platforms associated with hardware and operating systems, as well as “platforms” that do not allow direct engagement between the business user and consumer but nonetheless provide an important “channel to market” for certain types of service provider, or those which rely on advertising for their business model rather than contractual relationships with suppliers.

In its **Online Platforms** Communication,¹⁶⁷ the Commission notes that: “platforms cover a wide-ranging set of activities including⁴ online advertising platforms, marketplaces, search engines, social media and creative content outlets, application distribution platforms, communications services, payment systems, and platforms for the collaborative economy”.

Then Commission lists the main specific characteristics of the platforms as:

- having the ability to create and shape new markets, to challenge traditional ones, and to organise new forms of participation or conducting business based on collecting, processing, and editing large amounts of data;
- operating in multisided markets but with varying degrees of control over direct interactions between groups of users;
- benefiting from ‘network effects’, where, broadly speaking, the value of the service increases with the number of users;
- often relying on information and communications technologies to reach their users, instantly and effortlessly.

playing a key role in digital value creation, notably by capturing significant value (including through data accumulation), facilitating new business ventures, and creating new strategic dependencies.”

This comes closer to capturing the range of digital platforms which have been observed to cause problems. However, a wider application to “digital” platforms (or extension to the hardware, operating systems and software associated with online platforms) may be needed.

Moreover, while digital platforms are often associated with “two-sided” markets, as noted in a 2015 study prepared for the UK Upper Chamber (House of Lords),¹⁶⁸ platforms when defined in a wide sense, could refer to a single sided market, two-sided or multi-sided markets, such as those involving exchange between multiple users and businesses.

One approach could be to list the types of platforms which may require ex ante regulatory intervention.

From the problem definition as well as the case studies, we note that the types of services in which challenges have been identified or could emerge include:

- Online intermediation services including in particular marketplaces and app stores

2015 laying down a procedure for the provision of information in the field of technical regulations and of rules on Information Society services [2015] OJ L241/1, art.1(1b).

¹⁶⁶ See art 2(5) P2B Regulation defining online search engine as a digital service that allows users to input queries in order to perform searches of, in principle, all websites, or all websites in a particular language, on the basis of a query on any subject in the form of a keyword, voice request, phrase or other input, and returns results in any format in which information related to the requested content can be found

¹⁶⁷ Communication from the Commission of 25 May 2016, Online Platforms and the Digital Single Market: Opportunities and Challenges for Europe, COM(2016) 288, p.2-3.

¹⁶⁸ https://ec.europa.eu/information_society/newsroom/image/document/2016-7/nikolai_van_gorp_-_response_economics_to_the_uk_house_of_lords_call_for_evidence_14020.pdf

- Online search engines
- Operating systems
- Cloud computing services
- Video sharing platform services
- Number independent interpersonal electronic communication services
- Social networking services; and
- Advertising services associated with the above platforms

Another solution could be to include within the legislation a **wide definition of digital platforms**,¹⁶⁹ which could allow additional platform types to be encompassed under the legislation if needed.

In any event, even with a wide scope for the Directive the problem analysis suggests that regulation should be targeted at a specific subset of actors which have the ability to act as gatekeepers. Further discussion of the options to ensure the appropriate targeting of regulation through the inclusion of a “threshold” for intervention is provided in the following section.

f. What are the various options to achieve the objectives?

i. Option 0: Baseline

In the baseline scenario, only the existing rules applicable to online platforms will apply. The rules are already numerous and many of them have been adopted or reviewed recently. The main EU rules applicable to possible unfair practices of digital platforms are indicated in Table 8 below which distinguishes, on the one hand, among general rules applicable to all services providers and rules applicable to online platforms and, on the other hand, among rules which are symmetric and apply to service providers independently of their size or market power and rules which are asymmetric and apply only to largest service providers.¹⁷⁰

¹⁶⁹ This should cover for example end-user or cloud-based digital devices and operating systems that enable end-user access to online applications and services as well as app stores, applications and websites that intermediate between end-users and business users

¹⁷⁰ For a description of those rules, see A. de Stree, A. Kuczerawy and M. Ledger, “Online Platforms and Services”, in *Electronic communications, Audiovisual Services and the Internet: EU Competition Law and Regulation*, 4th ed., Sweet & Maxwell, 2019, 125-157.

Table 8. Main EU rules applicable to digital platforms

	General rules	Rules applicable to online platforms
Symmetric rules	<ul style="list-style-type: none"> - Services Directive¹⁷¹ - Consumer protection: UCTD¹⁷², UCPD¹⁷³, CRD¹⁷⁴, DCD¹⁷⁵ - Data protection : GDPR¹⁷⁶, FFDR¹⁷⁷ - Security: NIS Dir¹⁷⁸ and Cybersecurity Act¹⁷⁹ 	<ul style="list-style-type: none"> - E-commerce Dir. For all providers of Information Society Services¹⁸⁰ - P2B Regulation¹⁸¹ for online intermediation services and online search engines - AVMSD¹⁸² for video sharing platforms - EECC¹⁸³ for communications platforms - Copyright DSM Dir¹⁸⁴ for online content-sharing platforms
Asymmetric rules	<ul style="list-style-type: none"> Competition law¹⁸⁵ 	<ul style="list-style-type: none"> - EECC for communications platforms

Table 8 shows, at this stage, that most of the rules applicable to digital platforms are symmetric, although some symmetric rules include a proportionality principle or exemption for small enterprises.

¹⁷¹ Directive 2006/123/EC of the European Parliament and of the Council of 12 December 2006 on services in the internal market, OJ [2006] L 376/36.

¹⁷² Council Directive 93/13 of 5 April 1993 on unfair terms in consumer contracts, OJ [1993] L 95/29 as amended.

¹⁷³ Directive 2005/29 of the European Parliament and of the Council of 11 May 2005 concerning unfair business-to-consumer commercial practices in the internal market, OJ [2005] L 149/22, as amended by Directive 2019/2161

¹⁷⁴ Directive 2011/83 of the European Parliament and of the Council of 25 October 2011 on consumer rights, OJ [2011] L 304/64, as amended by Directive 2019/2161.

¹⁷⁵ Directive 2019/770 of the European Parliament and of the Council of 20 May 2019 on certain aspects concerning contracts for the supply of digital content and digital services, OJ [2019] L 136/1.

¹⁷⁶ Regulation 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46 (General Data Protection Regulation), OJ [2016] L 199/1.

¹⁷⁷ Regulation 2018/1807 of the European Parliament and of the Council of 14 November 2018 on a framework for the free flow of non-personal data in the European Union, OJ [2018] L 303/59

¹⁷⁸ Directive 2016/1148 of the European Parliament and of the Council of 6 July 2016 concerning measures for a high common level of security of network and information systems across the Union, OJ [2016] L 194/1

¹⁷⁹ Regulation 2019/881 of the European Parliament and of the Council of April 2019 on ENISA, the “EU Cybersecurity Agency”, and repealing Regulation 526/2013, and on Information and Communication Technology cybersecurity certification (Cybersecurity Act), OJ [2019] L 151/15.

¹⁸⁰ Directive 2000/31 of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market (Directive on electronic commerce), OJ [2000] L 178/1.

¹⁸¹ Regulation 2019/1150 of the European Parliament and of the Council of 20 June 2019 on promoting fairness and transparency for business users of online intermediation services, OJ [2019] L 186/55.

¹⁸² Directive 2010/13 of the European Parliament and of the Council of 10 March 2010 on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the provision of audiovisual media services (Audiovisual Media Services Directive), OJ [2010] L 95/1, as amended by Directive 2018/1808.

¹⁸³ Directive 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code, OJ [2018] L 321/36.

¹⁸⁴ TFEU, arts.101-108 and Council Regulation 139/2004 of 20 January 2004 on the control of concentrations between undertakings, O.J. [2004] L 25/1.

¹⁸⁵ Directive 2019/790 of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the Digital Single Market and amending Directives 96/9 and 2001/29, OJ [2019] L 130/92.

ii. Option 1: Ex ante regulation based on specific prohibited practices or obligations established on platforms meeting specified threshold criteria in the law

As the problems identified are linked to the conduct of a subset of platforms (a narrower scope than the P2B Regulation) and have proven not to be effectively addressed via competition law, the only realistic solution would be to tackle the problematic conduct through ex ante regulation. The need for ex ante regulation in the sector was also broadly supported by the expert panel convened for this study,¹⁸⁶ and the majority of interviewees.¹⁸⁷

However, within the scope of ex ante regulation, it is possible to envisage different degrees of intervention, both as regards the threshold for intervention (which affects the number of platforms that would be subject to regulation), and as regards the strength and depth of intervention itself. In addition, differing approaches could be taken towards the nature of the rules applied, ranging from full specification of the rules within the legislation, towards full flexibility of intervention by the regulatory authority applying them.

Under Option 1 (which we will henceforth refer to as **non-dynamic regulation**) all aspects of the legislative measure would be self-executing, to the fullest extent possible. This would imply that the threshold used to determine which platforms have gatekeeper status consists of quantitative criteria only and that platforms meeting these criteria would be subject to clearly defined prohibitions and obligations, which do not require any further specification. No designation by a regulator would be required under this option, and gatekeepers would take responsibility for ensuring compliance with requirements of the law without any intervention from a regulatory body.

Different sub-options could be envisaged under this heading, whereby, under option 1a, a high bar for intervention would be set (by setting high quantitative metrics for the threshold), while under option 1b, a lower bar would be set, thereby capturing more platforms within the scope of the obligations.

Enforcement action under this option could be carried out by a regulatory authority on its own initiative or on the basis of a dispute. An approach such as this could also or alternatively provide scope for private enforcement.

iii. Option 2: Ex ante regulation which includes both static and dynamic aspects

Under this option, there would be a mix between self-executing measures and measures which require further specification or elaboration. A distinction would be made between (i) prohibitions and/or obligations which can be specified to a high degree, thereby enabling them to be self-executing; and (ii) prohibitions and/or obligations which would require further elaboration by a regulatory body, in order to allow them to be tailored to the specific platform in question.

Similarly, as regards the threshold to define large gatekeeper platforms, a mix between quantitative and qualitative criteria could be envisaged, whereby quantitative criteria in the legislation would indicate the presence of a gatekeeper platform, but qualitative criteria could also be used to confirm that the platform concerned could exploit a gatekeeper position, especially in situations where not all of the quantitative criteria are met by a given platform, but where qualitative criteria are nonetheless fulfilled.

As with option 1, suboptions could be considered based on the level of the quantitative criteria that would need to be met in order to define a platform as meeting the large gatekeeper criterion.

¹⁸⁶ See Annex 6

¹⁸⁷ See Annex 7

This option would require the intervention of regulatory authority in the designation of gatekeeper platforms, as well as in the specification of obligations and/or prohibitions which require further elaboration. Given the role played by the regulatory authority in defining the regulatory regime, a system of public enforcement by the regulatory authority would be most coherent in this case.

iv. Option 3: Fully dynamic regulation

Under option 3 – fully dynamic regulation - all regulatory requirements would be subject to case by case specification, and the threshold would likewise be composed only of qualitative criteria, which would provide for a wide degree of optimisation by a regulatory authority, relying on available evidence. Under this option, obligations and prohibitions could be outlined within the legislation but made subject to further specification either directly by the regulatory authority, or via a co-regulatory process involving review and approval by the regulatory authority of propositions put forward by the designated operators (similar to a commitment process). Alternatively, the legislation could contain a toolbox of measures from which the regulatory authority could impose obligations, similar to the toolbox provided to national regulatory authorities in the context of the EU electronic communications Code.

v. Establishing the threshold for intervention

All three of the proposed options would entail identifying a threshold which is used to designate platforms with gatekeeper power.

Our detailed analysis of the possible options for such a threshold is contained in Annex 2. Based on an analysis of the enablers of unfair business practices alongside legal and economic literature and practices at a national level, we propose that the following three criteria could be used to identify platforms which have a “large gatekeeper” position.

- Large platform and / or EU significance
- Gatekeeper giving rise to dependency
- Enduring gatekeeper position

These three criteria could be further broken down into subcriteria, such as those described in the table below.

Criterion	Subcriteria
Large platform with EU significance	Large size Operations impact the internal market
Gatekeeper giving rise to dependency	undertaking which controls the flow and accessibility of information and structures the digital environment Limited potential for multi-homing or switching by end-users and/or business users
Enduring gatekeeper position	- High barriers to entry on existing areas of business, in particular Direct and indirect network effects Feedback loops Zero price effects - High barriers to entry on future areas of business - Control and barriers to entry to innovation capabilities, in particular

Criterion	Subcriteria
	<p>data, risky and patient capital, computing infrastructures digital skills</p> <p>- Conglomeration, for example as indicated by: Presence in multiple (related) business areas Control of ecosystems with core digital platform orchestrator Modular design innovation Consumer synergies within ecosystems</p>

Size and impact on the internal market provide an indication of the degree of importance of the platform to the EU economy and society.

The core features which give a platform bottleneck power are highlighted under the second group of criteria. These factors tend to enable a platform to dictate the terms under which business users or developed can gain access to its customer-base.

The third group of criteria are important in identifying whether a gatekeeper platform has control over assets or operates in a segment with characteristics such as network effects that would enable it to perpetuate its position and impede others from entering and expanding. Conglomeration could be viewed as a supporting indicator for the ability to maintain a gatekeeper position (third criterion) or signal that a platform may have a particularly strong gatekeeper position and ability to cause harm (i.e. act as an aggravating factor).

Setting out criteria for the designation of large gatekeeper platforms at the level of “principles”, could form the basis of a purely qualitative threshold such as that proposed for option 3 (fully dynamic threshold). Interpretation of these criteria, and associated indicators, could evolve based on specific cases and case law, as has been the case for example in the context of the competition-law concept of “dominance”, and the associated concept of “Significant Market Power” in the electronic communications sector.

Option 1 (non-dynamic threshold) would require the criteria to be translated into defined quantitative indicators which would, if met, automatically result in the designation of a platform as a gatekeeper.

Cluster-based analysis performed by the study team (see Annex 2), shows that certain quantitative indicators can be helpful in assessing the three criteria for a gatekeeper platform. Indicators that were found to be significant in identifying platforms which had been deemed to have engaged in harmful practices include:

- Share of customers in core business area (as an indicator of a gatekeeper position)
- Free cashflow, as an indicator of the ability to sustain a gatekeeper position
- Indicators for conglomeration could also signal the ability to sustain a gatekeeper position. Relevant factors were found to include:
 - Aggregated market share in segments where present (indicative value >83%) (or similar analysis based on market ranking)
 - Presence in multiple business segments (indicative value = more than 5)

In addition, the expert panel convened for the study noted that it could be useful to identify an indicator based on **absolute size**, to limit intervention to the largest companies.

It is thus conceivable that a threshold based on purely quantitative metrics could be developed. However, as noted in our detailed analysis of quantitative measures, it was not possible to identify relevant quantitative indicators for all of the factors that might contribute to a platform having gatekeeper power, and moreover, we noted that the absolute level of the indicators identified via the cluster analysis might vary over time and depending on the sample of companies considered within the analysis.

Option 2 (semi-dynamic threshold) would entail the use of a combination of quantitative indicators, which could be associated with a “presumption” of a gatekeeper position, alongside qualitative indicators, which could be used to identify gatekeepers which have the ability to impact the market environment and consumers, but may not meet all aspects of the threshold when defined in purely quantitative terms. Types of evidence that could be provided for a mixed quantitative and qualitative threshold are shown in the following table.

Mixed threshold	Quantitative	Qualitative (Indication)
	<p>EU significance: absolute number of users and/or dependent businesses, number of countries covered</p>	<p>Gatekeeper</p> <p>Economic dependency</p> <p>Multihoming in business area (e.g. interview, survey data)</p>
	<p>Gatekeeper (Control of Bottleneck): Share of customers in core business area (indicative value >61%)</p>	<p>Switching</p> <p>Consumer focus group, consumer survey data</p>
	<p>Enduring gatekeeper (Control over innovation) Free Cash Flow (indicative value > 1,7 x sample (market average))</p>	<p>Enduring gatekeeper (Control over innovation)</p> <p>Control over strategic data</p> <p>Acquisitions practices</p> <p>Bundling of services</p> <p>Entry into downstream and upstream markets</p>
	<p>Aggregated market share in segments where present (indicative value >83%) (or presence in multiple business segments (indicative value = more than 5))</p>	

A mixed approach such as this could serve to provide a means of ensuring that there are straightforward mechanisms to identify the largest gatekeeper platforms, while providing sufficient flexibility to enable other platforms to be identified based on a detailed analysis of qualitative criteria.

vi. Establishing the nature of the obligations

Under option 1, the DMA would include prohibitions or restrictions relating to certain unfair practices (“blacklisted” practices), carried out by large gatekeeper platforms. As explained in Annex 5, this approach is also followed in EU consumer protection law as well as in the B2B UCT Food Supply Directive.

Practices which are considered to be per se harmful, would be clearly specified and subject to an explicit prohibition so as to enable the legislation to be “self-executing” to the extent possible.

Under option 2, the legislation could, alongside blacklists also include “greylists” in the form of practices which are prohibited, but which may require interpretation, case by case judgement as regards their effect, or an implementation step. In similar vein, the legislation could also include general obligations which require some form of judgement or implementation.

Examples of a possible segmentation of measures between blacklist and greylist is shown in the following table. The underlying analysis is contained in Annex 2.

Type of provision	Practice addressed
Blacklist – per se general prohibition	Unfair trading practices (specific) e..g. Prohibition on making the provision of access or associated conditions (including display and prominence) conditional on unrelated transactions such as obligations to participate in single sign-on Prohibition on making access or associated conditions conditional on exclusivity Prohibition on anti-steering clauses Prohibition on MFN clauses (wide) Prohibition on adjustments to ranking algorithm to favour own services Prohibition on misuse of third-parties data for competitive gain
Greylist (with potential for clarification through Guidelines)	Minimum data / timescales for data portability / requirement to meet standards Requirement to provide data associated with business users’ own customers with given timescales / format Prohibition on harmful self-preferencing Prohibition on harmful tying and bundling Prohibition on cross-subsidisation (between different services or products or different geographic regions) having exclusionary effect
General obligations with case by case application	Access to core services on fair and non-discriminatory terms and conditions including price Access to technological functionality and associated APIs Data access obligations Interoperability obligations

The identified blacklisted practices relate to practices that have been identified as harmful, when carried out by large gatekeepers, across a variety of platform types. For example;

- Linking access conditions to unrelated requirements could be relevant to a diverse range of platforms, ranging from e-commerce platforms where allegations have been made concerning requirements for “investments” as a condition of maintaining display

conditions to circumstances where a conglomerate platform makes access or the purchase of advertising conditional on the deployment of its single sign-on service

- Misuse of third party data for competitive advantage could be relevant to all digital platforms where a gatekeeper platform has access to data from business users or application providers and is offering or seeking to offer its own downstream services
- Anti-steering clauses and MFN clauses have been exploited in the context of contracts for app stores as well as e-commerce and travel platforms.
- Self-preferencing in rankings has been identified as a problem in the context of search as well as e-commerce, and might also be application in other settings in cases where the platform is vertically integrated

The suggested greylisted practices that could be captured under option 2 are also relevant across a range of platforms, and could be elaborated with reference to sector-specific guidelines and standards e.g. in relation to data portability and formats for data provision.

It is possible that the DMA could also prohibit “ex ante” certain practices such as tying and bundling more widely, and/or self-preferencing (beyond manipulating rankings) where this would have an exclusionary effect. However, if phrased in a wide manner, “greylist” prohibitions of this kind may require a case by case assessment of the circumstances in which the conduct should be prohibited i.e. the meaning of “harmful” in relation to a gatekeeper platform.

Finally, or alternatively (instead of a “greylist” approach), certain obligations could be subject to case by case application, enabling a regulatory authority to mandate obligations from a menu of options, and in this context to further specify the obligations and potentially the means of implementation (e.g. through measures such as equivalence of input¹⁸⁸ or functional separation¹⁸⁹) and enforcement. Examples of measures which could fall into this fully flexible category include data access / sharing obligations which go further than the current obligations of the GDPR and FFDR¹⁹⁰ or interoperability requirements which go further than the current obligations imposed by the EECC on communications platforms.¹⁹¹

While option 2 would maintain a distinction between blacklisted and greylisted practices depending on the type of practice and potential for measures to be self-executing, **option 3 would treat all measures under the DMA as flexible and subject to interpretation and/or specific implementation steps.**

Further detail underlying this analysis, and a discussion of implementation methods in cases where measures require elaboration or an implementation step, are included in Annex 2.

vii. The Governance regime

The fact that intervention is needed for enforcement purposes and, in the case of options 2 and 3 to designate gatekeeper platforms, and to elaborate the application of certain

¹⁸⁸ The concept of Equivalence of Input has been developed in relation to the enforcement of the non-discrimination principle in the context of electronic communications regulation. It implies that the gatekeeper platform would need to use the same interfaces, charge the same prices and offer the same terms and conditions to its downstream businesses as to third parties.

¹⁸⁹ Functional separation has been defined in the context of the EECC as the process of requiring a vertically integrated undertaking to establish operationally separate business units, and can be seen as a next step in the level of enforcement of non-discrimination after Eol. Stronger measures still, which are normally the preserve of competition law and merger control might include legal separation and finally a prohibition on operating in downstream markets / divestiture

¹⁹⁰ GDPR, art.20; FFDR, art.6.

¹⁹¹ EECC, art.61(2c).

obligations, means that a regulatory authority should be tasked with the application of the DMA.

The European Commission was identified by stakeholders in the course of interviews, as well as the expert groups is likely to be the best-placed authority to act as a regulator in the context of the DMA. The cross-border nature of most gatekeeper platforms (and for online transactions in general) justifies an EU-wide approach to designation and the application of obligations, and therefore it is appropriate for an EU body to undertake these tasks. Moreover, the European Commission has relevant experience in designating stakeholders which exert market power e.g. in the context of competition law, as well as in reviewing and monitoring the implementation of ex ante measures e.g. in the context of ex ante regulation applied to the electronic communications sector.¹⁹²

At the same time, the conduct of gatekeeper platforms may have specific effects on business users including SMEs and start-up companies active at a national level and national administrations also have valuable experience in the application of competition law and ex ante enforcement across a range of sectors. Thus, the experience of national administrations could usefully be harnessed through the establishment of a network, which is engaged in the development of guidelines and contribution to decisions under the DMA (e.g. in relation to designation or the elaboration of obligations) as well as playing an active role in the enforcement process. Other examples where networks of national administrations have played a valuable role include the European Competition Network, as well as the Body of European Regulators for Electronic Communications ('BEREC'), which works in close cooperation with the Commission to adopt guidelines, issue opinions and gather information.¹⁹³

g. How do the options compare?

i. Effectiveness

As regards the status quo, as noted in section b.vi, if action is not taken at EU level to establish a ruleset for the ex ante regulation of large gatekeeper platforms, there is a high risk that national rules will be introduced that result in the fragmentation of the internal market, negatively impacting the ability of platforms and business users to operate cross-border and thereby limiting consumer choice. Moreover, in cases and regions where no regulatory action is taken, large gatekeeper platforms could act in a manner which excludes or discriminates against business users or application providers, limiting the potential for innovation and entry, and – in certain cases – limiting choice and/or increasing prices for consumers. Thus, the status quo is not a viable option to address the problems identified.

Option 1 (non-dynamic regulation) follows an approach to designation that is fixed through thresholds set in the Directive. As such it follows a similar approach to the thresholds established in the UTP Food Supply Directive which judges dependency on the basis of the gap between the annual turnover of the supplier and buyer,¹⁹⁴ and the approach used in the EU's Financial Supervision Regulation, which refers to the **quantitative absolute level of assets**, economic importance and the size of cross-border activities.¹⁹⁵ The obligations under this option are also designed to be self-executing, and in this context, are similar to

¹⁹² Analyses conducted under article 7 of the EU Framework for Electronic Communications

¹⁹³ Regulation 2018/1971 establishing the Body of European Regulators for Electronic Communications (BEREC) and the Agency for Support for BEREC (BEREC Office) [2018] OJ L321/1.

¹⁹⁴ Directive 2019/633 of the European Parliament and of the Council of 17 April 2019 on unfair trading practices in business-to-business relationships in the agricultural and food supply chain, OJ [2019] L111/59, art.1(2).

¹⁹⁵ Council Regulation 1024/2013 of 15 October 2013 conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions, O.J. [2013] L 287/63, art.6.

“blacklists” used in Directives which aim to ensure fairness in business relationships such as those set out in the Food Supply Directive.¹⁹⁶ An advantage of this approach is that it allows for swift application of the rules, without any intermediate step by a regulatory authority. It also should provide clarity for stakeholders on whether or not they would be captured within the scope of the measure, and places the onus on the designated platforms to comply rather than requiring detailed elaboration of the rules.

However, our analysis suggests¹⁹⁷ that while certain quantitative criteria can be good predictors of gatekeeper power amongst digital platforms (for example as evidenced by proven abuse under competition law proceedings), concerns have nonetheless been found (and enforcement action taken) with respect to platforms which would not meet all of the quantitative criteria that are associated with the largest gatekeeper platforms that have been the subject of most complaints thus far. Such platforms could be captured within the threshold if the quantitative criteria were lowered (option 1b). However, lowering the threshold would risk capturing additional players, whose conduct has not given rise to concern. Thus, use of quantitative criteria alone to identify large gatekeeper platforms risks either under or over-regulation.

A similar problem exists when only “self-executing” obligations are provided for in the legislation. Our analysis suggests¹⁹⁸ that some practices can be defined sufficiently clearly that they could be subject to “blacklists” in the legislation. These include for example, a prohibition on the misuse of third party data to benefit the retail arm of the platform, or the prohibition on “anti-steering” clauses, which prevent application or service providers from advertising the existence of alternative subscription and billing mechanisms. However, there are other problematic practices, for which it is not possible to define a prohibition or obligation in the legislation sufficiently clearly that it could be applied without further interpretation. Self-preferencing (in a broad sense) is one such case, while access to data or interoperability, also require a further interpretation and/or operational step in order to render them effective. Thus, the use of a pure blacklist approach based on self-executing prohibitions would either result in a limited list of prohibitions (and thus fail to tackle some of the serious problems raised by gatekeeper platforms) or if broadened, could result in measures which are difficult to interpret and create legal uncertainty, creating considerable pressure on the enforcement and appeals process to define the scope of the obligations. This would entirely negate the time benefits that should arise from a self-executing measure.

Option 3 (dynamic regulation) provides scope for full flexibility both in the designation process and in the specification of obligations. As such, it is closer in nature to the regulatory process pursued in the context of electronic communications regulation, where national regulatory authorities define relevant markets and designate operators on the basis of competition law principles (subject to guidance at EU level), and then select from a toolbox of measures such as access, non-discrimination, price control etc, which must often be elaborated in detail in order to ensure effective application. Such an approach should ensure that designation takes account of a range of factors and remedies are tailored to each situation and platform. However, experience from the electronic communications sector, as well as certain aspects of competition law, such as merger control, where remedies are also considered, suggest that this approach is likely to be lengthy, and the extensive reliance on the qualitative judgement of the regulatory authority may also result in appeals, creating further uncertainty and delay.¹⁹⁹ This is likely to make such an approach less effective in a

¹⁹⁶ For example, the Food Supply Directive prohibits practices such as late payment, unilateral changes to terms of a supply agreement

¹⁹⁷ See Annex 2

¹⁹⁸ See Annex 2

¹⁹⁹ For example, the European Commission opened its formal investigation into Google on 30 November 2010 and issued first of its (so far) three decisions on 27 June 2017. Google’s appeal against this *Shopping* decision is still pending. In relation to remedies, Google’s rivals alleged in November 2020 that “as of today, the decision did not lead to Google changing anything meaningful”. Open letter of 12 November 2020 to EU competition

fast-moving sector such as digital platforms, and limits the benefits of an ex ante regulatory approach in comparison with competition law in addressing damaging practices.

Effectiveness of the ex ante measure could on the other hand be maximised by making use of a mix between pure quantitative and qualitative indicators as regards thresholds, and a mix between self-executing measures (wherever it is possible to specify the measures in this way) and those requiring elaboration, which could be done by the European Commission alone or, where appropriate, in conjunction with the regulated party. This is the solution proposed in the context of Option 2 (semi-dynamic regulation). The advantage of this option is that the use of quantitative criteria could allow clarity and speed in the designation of the largest gatekeeper platforms which have been identified with the majority of problems identified by stakeholders (and in anti-trust investigations), while enabling action to be taken on a case by case basis amongst those platforms which may not meet all the quantitative criteria, but may nonetheless have been identified as having the potential to exercise gatekeeper power to the detriment of business users and consumers. Meanwhile pursuing a mix of self-executing measures and those requiring elaboration, should enable swift and clear action to be taken in relation to measures which can be proscribed in detail, while providing scope for more tailored measures in cases where elaboration is required to make clear how the obligation should be interpreted in a particular case and/or to specify the type of solution needed to render the obligation operational. An analysis of the distinction between the two types of measures is provided in Annex 2.

As regards the choice between option 2a (with high quantitative thresholds) or option 2b (with low quantitative thresholds), the key trade-off lies between the risk of over or under-regulation. Setting a high threshold is likely to capture only the largest gatekeeper platforms within the automatic designation system and require case by case assessment to potentially designate other platforms which do not meet all of the quantitative criteria. This approach would minimise the risk of over-regulation, but subject those falling short of the quantitative criteria to a longer process, with greater risk of uncertainty and challenge. Conversely, using low thresholds may result in the automatic designation of a larger number of platforms, but increase the risk of over-regulation, which might result constrain the commercial options for platforms which do not have the power to create a negative impact on business users and consumers. On balance, the principle of precaution and better regulation, limiting the scope of regulatory intervention to the minimum necessary, suggests that a **high threshold for designation of gatekeepers would be more suitable in this case.**

We conclude that **option 2a is most likely to be effective in addressing the problems identified.**

ii. Efficiency

An assessment of efficiency entails comparing the administrative costs associated with the different options and comparing the costs with the direct and indirect benefits in each case.

Administrative costs include the costs of the governance mechanism at EU and national level, as well as the costs to platforms and others including business users, application developers and e-commerce merchants that may be affected by the regulation, either due to the imposition of regulation or associated requirements (such as information provision). The analysis should also take into account, any direct or indirect costs which may be borne by consumers.

commissioner Margrethe Vestager, signed by 135 companies and 30 industry associations
https://www.enpa.eu/sites/default/files/inline-files/Final_ENG_Joint%20Letter%20of%20Online%20Intermediaries%20to%20M.Vestager_ENG%20-%202011.11.2020.pdf

Administrative costs

Regarding the administrative costs, it is assumed that option 1 (non-dynamic designation and obligations) would entail only costs associated with information gathering, alongside monitoring and enforcement exercises. These would be conducted by the European Commission with support from the network of national experts. **The total estimated cost for option 1 would be around €4.6m, with a cost of €3.7m for the European Commission** (including resource to co-ordinate the network of national experts) and the remainder associated with national experts. Under option 2 (semi-dynamic designation and obligations), additional resource would be required to undertake supplemental designation (of gatekeepers not meeting all quantitative criteria) and to implement certain measures which are not subject to self-executing requirements. **The total estimated cost of option 2 is around €11.6m, of which an estimated €8.2m would be associated with the activities of the European Commission (including co-ordination of the network).** Finally, under option 3, as all designation and remedies would be applied on a case by case basis, further resource would be required within the Commission and amongst member states. It is assumed that **option 3 would account for costs of around €16.6m of which €10.6m would be attributed to the Commission.**

Setting a higher threshold for designation (under option 2a) would be associated with relatively higher resource for designation, due to the need to conduct case by case analyses in more situations. However, it is possible that under this scenario, fewer platforms would be designated as gatekeepers overall, which would reduce costs associated with case by case remedies and enforcement. Thus, overall costs for 2a and 2b might be similar. On the other hand, a higher threshold under option 1a (non-dynamic regulation) would likely be associated with fewer designations than option 1b. Thus, option 1a can be assumed to represent the lowest cost of the relevant options.

These cost estimations do not include overheads associated with IT, training, meetings and missions. Such costs might in particular be associated with gathering representatives from the 27 Member States for meetings associated with the Network. On an assumption that option 1 would entail 4 physical meetings of the Network each year, each involving 2 representatives and that the average cost for travel and subsistence per representative is €500 for each occasion, then the travel cost associated with the Network under option 1 would be around €108,000 per year. This might double in the event of option 2 (due to increased need for involvement in relation to specific Decisions), and double again for option 3, to reach around €432,000 per year in that scenario.

The scale of costs to stakeholders would likely mirror those associated with the costs for the European Commission and national administrations, with the lowest cost being associated with option 1a (non-dynamic regulation with high thresholds), and the highest being associated with a very tailored and case specific approach (option 3). If 10 FTEs are required to address regulatory compliance per regulated gatekeeper platform (equivalent to 2.5 “markets” in electronic communications) and if 10 major platforms are subject to ex ante regulation via self-executing clauses only (option 1), the total cost associated with addressing ex ante regulatory obligations could be around €6.4m in total (€635,000 per platform)²⁰⁰. If an additional 4 FTEs were required to additionally address some detailed case by case obligations, additional costs of around €250,000 would apply per platform and the total cost for 10 platforms would increase to around €8.9m. If all obligations were case by case and this required an additional 4 FTEs per platform, the total cost for 10 regulated platforms would increase to €11.4m.

These estimates do not however include the cost of external legal advice and appeals. Costs for both the European Commission and stakeholders are likely to be proportionately higher for options which entail greater degrees of flexibility (and therefore scope for legal challenge).

²⁰⁰ This assumes an FTE cost based on 50% ISCO1 and 50% ISCO2

Thus, the total costs for options 2 and 3 could be higher in the order of several million euros in the event of legal challenge. At the upper bound, a large platform interviewed for the support study considered that the enforcement costs for implementing tailored ex ante regulation could vary widely, ranging from a minimum of €15m with centralised enforcement and limited intervention scope, up to €30m or more if the interventions were distributed across multiple markets, and the scope was wide. If these estimates are correct, then a maximum of around €300m in compliance and regulatory expenses for stakeholders might be associated with obligations applying to 10 platforms.

A summary of the administrative cost estimation for the Governance of the DMA is shown in the following table.

Digital Markets Act - Impact Assessment support study

Commission cost

Option 1	Option 2	Option 3	Activity	Frequency	Resource required (FTE annual)	Annual cost per FTE incl. overheads	Total staff cost	Consulting	Total cost
v	v	v	Information gathering	Annual	10	130000	1300000	€1,000,000	€2,300,000
	v		Designation (supplemental only 5 gatekeepers)	Every 5 years	1.5	130000	195000		€195,000
		v	Designation (detailed qualitative 10 gatekeepers)	Every 5 years	3	130000	390000		€390,000
	v	v	Prepare guidelines	Every 5 years	2	130000	260000	500000	€760,000
v	v		Undertake EU-level monitoring and enforcement of self-executing provisions	Initial, ongoing enforcement, updates after 5 years	10	130000	1300000		€1,300,000
	v		For subset of measures: Make tailored data requests. Mandate case by case remedies and undertake associated EU-level enforcement	Initial, ongoing enforcement, updates after 5 years	25	130000	3250000		€3,250,000
		v	For all measures: Make tailored data requests. Mandate case by case remedies and undertake associated EU-level enforcement	Initial, ongoing enforcement, updates after 5 years	50	130000	6500000		€6,500,000
Total	€3,600,000	€7,805,000	€9,950,000						

Digital Markets Act - Impact Assessment support study

Cost of network co-ordination within Commission

			Activity	Frequency	Resource required per NRA	Annual cost per FTE incl. overheads	Total staff cost	No. authorities	Total cost
v	v	v	Input to enforcement	Periodic	1	130,000	130,000.00		130,000.00
	v		Input to guidelines, designation (supplemental only)	Periodic	1	130,000	130,000.00		130,000.00
		v	Input to guidelines, designation (detailed)	Periodic	2	130,000	260,000.00		260,000.00
	v		Input to case by case decisions (subset of measures)	Periodic	1	130,000	130,000.00		130,000.00
		v	Input to case by case decisions (all measures)	Periodic	2	130,000	260,000.00		260,000.00

Total	130,000	390,000	650,000
Travel	108,000	216,000	432,000
Total incl travel	238,000	606,000	1,082,000

Cost to national administrations

			Activity	Frequency	Resource required per NRA	Annual cost per FTE incl. overheads	Total staff cost	No. authorities	Total cost
v	v	v	Input to enforcement	Ongoing	0.5	63,511	31,755.68	27	857,403.24
	v		Input to guidelines, designation (supplemental only)	Ongoing	0.5	63,511	31,755.68	27	857,403.24
		v	Input to guidelines, designation (detailed)	Ongoing	1	63,511	63,511.35	27	1,714,806.48
	v		Input to case by case decisions (subset of measures)	Ongoing	1	63,511	63,511.35	27	1,714,806.48
		v	Input to case by case decisions (all measures)	Ongoing	2	63,511	127,022.70	27	3,429,612.95
Total	857,403	3,429,613	6,001,823						

Total cost incl travel	€ 4,695,403	€ 11,840,613	€ 17,033,823
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The estimated resource required for the different activities listed in the table has been drawn from benchmarks, primarily from the ex ante regulation of the electronic communications sector and competition law.

Regulation of the electronic communications sector involves European Commission Recommendations on designation procedures (SMP Guidelines, Recommendation on Relevant Markets susceptible to ex ante Regulation) as well as remedies (2010 NGA Recommendation, 2013 Recommendation on Cost Methodologies and Non-Discrimination), technical guidelines (often produced by BEREC), the designation of players with “Significant Market Power” (by national regulatory authorities), alongside the development of Commitments and case by case remedies.

In a 2016 study conducted by WIK, Ecorys and VVA on the review of the EU Framework for Communications,²⁰¹ the following time was recorded for activities, which might be similar to those envisaged in the context of the ex ante regulation of digital platforms:

- 50 FTEs at the European Commission including 20 FTEs at the article 7 unit (responsible for reviewing the Decisions of NRAs), and 30 FTEs at the two units responsible for “implementation and monitoring” including the preparation of Guidelines)
- 47 FTEs for the development of technical guidelines, reports, best practice and benchmarking (by representatives from NRAs)

National Regulatory Authorities reported an average of 26 FTEs each involved in implementing the EU Framework for electronic communications (i.e. making SMP designations, imposing remedies etc). As of 2016, NRAs were recommended to conduct reviews of 5 “relevant markets” which were considered to be susceptible to ex ante regulation under the 2014 Recommendation on Relevant Markets, and thus an average of approximately 5 FTE can be assumed “per market” (identified at national level).

The parallels are imperfect especially as regards the resource required in the article 7 and implementation units of the Commission, because electronic communications networks are regulated at a national level, and the Commission provides a supervisory role (with the power to over-rule NRA decisions in certain areas and under certain circumstances). However, the resourcing provided by NRAs for the development of technical guidelines and the provision of advice to the European Commission in the development of Recommendations could be relevant in identifying required resources amongst national authorities in providing a support function to the Commission. Moreover, even if it is at national level, the time taken for a designation, imposition and enforcement of detailed remedies by electronic communication NRAs, might be relevant in considering the effort required to implement tailored remedies on gatekeeper platforms, if implemented by the Commission under the DMA (option 2 (partially) and option 3 (fully)).

Further evidence of the administrative cost associated with specific ex ante regulatory procedures, which have been taken at national level can be seen from the Special fee ordinance of the Ruling Chambers handing post and telecommunications within BNetzA, the German regulatory authority.²⁰² For example:

- A decision on remedies including market analysis is deemed to cost between €4,000-€76,500

²⁰¹ WIK, Ecorys, VVA (2016) Support for the preparation of the Impact Assessment accompanying the review of the regulatory framework for e-communications http://publications.europa.eu/resource/cellar/2984b37b-9aa6-11e6-868c-01aa75ed71a1.0001.01/DOC_1

²⁰² <http://www.gesetze-im-internet.de/bkgebv/BJNR139400019.html>

- An order to grant access is deemed to cost between €3,000-€34,000
- Setting a wholesale price ex ante may cost between €6,500-€171,000, while price setting “ex post” may cost between €1,000-€40,500
- Administrative acts such as net neutrality prohibitions is assumed to cost between €1,500-€13,500; and
- A dispute resolution procedure under the E-Communications Framework is assumed to cost from €4,000-€48,000.

At the higher end of these ranges (to account for the complexity and novelty of ex ante regulation of digital platforms), the total cost for a decision on remedies including market analysis, with a decision to grant access and the setting of a wholesale price ex ante would cost €281,500. This would be the equivalent of 9,707 hours of effort by professional staff at a cost of €29 per hour.²⁰³ This would amount to 5.4 FTE if each staff member works 225 days per year and 8 hours per day, and confirms the estimates provided in the context of the EECC Impact Assessment.

The cost associated with dispute resolution procedures, as estimated by the German authorities, may also be a useful benchmark in assessing the potential costs to national authorities in settling disputes which may arise in connection with prohibitions and obligations established under the legislation. Taking the maximum – as may be associated with a complex dispute – the implied time would reflect just under 1 FTE professional employed on an annual basis.

An example which may be more relevant to consider in the context of designation and application of remedies, and settling of disputes by an EU body is the application of powers by the European Commission (DG Competition) to enforce anti-trust rules and assess the implications of and approve (with or without remedies), merger activities affecting the single market. In this context, it is worth noting that:

- The anti-trust unit addressing e-commerce and the data economy involves 11 professional staff and 2 secretaries.
- The anti-trust unit addressing issues concerning IT, the Internet and consumer electronics involves 19 professional staff and 4 administrative assistants and secretaries.
- The merger unit dealing with information, communication and media (i.e. a scope broader than the planned regulation covering platforms) involves 18 professional staff and 3 administrative assistants and secretaries.

The types of activities performed in assessing a merger – including data gathering and analysis of the market, and potential design of “commitments” for the merging firms may be relevant in assessing the resource required to implement stakeholder-specific Codes of Conduct or “commitments”, if that approach is taken to elaborate and operationalise requirements which cannot be self-executing. However, the role taken by the Commission in the case of mergers may not extend to the detailed enforcement of commitments (as this role may be overtaken by a monitoring trustee).

The time and resource taken to conduct a designation and design remedies in a competition anti-trust case might be similar to the combined resource required to designate gatekeeper platforms and design case by case remedies (option 3 or aspects of option 2), on the assumption that the designation process for gatekeeper platforms would require less resource than under competition law, but the remedies might be more detailed and therefore require more resourcing in their design. As with mergers however, anti-trust remedies are likely to involve less ongoing monitoring and enforcement than remedies applied under an ex

²⁰³ ISCO 2 estimation 2017

ante regime, as they are designed to address individual cases of abuse, rather than to address the evolving challenges associated with bottlenecks on an ongoing basis.

Based on benchmarks of similar practices within the Commission, networks and national authorities, and an assumption based on the regulation of 10 platforms, we estimate that around 20 FTE may be required to support the activities of the Commission associated with option 1, with a focus on information gathering, monitoring and enforcement, while just under 50 FTE might be required within the Commission to handle option 2, which involves qualitative assessment and the implementation of bespoke measures in addition to information gathering and enforcement. If designation and measures are all conducted on a case by case or tailored basis, we estimated that the total resourcing requirement within the Commission would reach 65 FTE. We assume a blended average cost per FTE employed by the Commission of €130,000.²⁰⁴

Additional resource is assumed to be allocated within the Commission or an existing EU-level regulatory body to co-ordinate the network of national authorities and enable the smooth exchange of information and administrative co-ordination of inputs from national authorities addressed to the European Commission. While 1 FTE is assumed for option 1, due to the much more limited nature of the interventions under this option, 3 FTEs are assumed for option 2 and 5 for option 3, as this option would involve frequent interactions between the Commission and the member state representatives, and associated meetings. The estimated personnel costs of €390,000 under option 2 and €650,000 under option 3 are proportionate to the current costs to the Commission of providing the secretariat to the Expert Group to the Observatory on the Online Platform Economy, which were estimated at €450,000 for 4 FTEs.²⁰⁵

The allocation of resources assumes that most activities including designation, development of Codes of Conduct and enforcement measures would be undertaken at EU level. However, dedicated resource will also likely be needed within national administrations to provide input to the Commission's Decision-making processes in this area in relation to the proposed network of national experts. 0.5 FTE per Member State are assumed for option 1, which involves limited case by case intervention, but this is expected to increase to 2 FTE per Member State for option 2 and 3.5 FTE for option 3, in view of the detailed inputs required. For the Member States we assume average fully loaded costs of €35 per hour,²⁰⁶ which equates to an average of €63,500 per annum per FTE.²⁰⁷ Based on these assumptions, average annual personnel costs per Member State associated with support for the DMA would amount to €31,800 for option 1, €127,000 for option 2 and €222,290 for option 3.

The estimates are based on evidence of the costs that might be associated with the Commission undertaking the role of regulatory authority, with a support network composed of national authority representatives, which also conduct dispute resolution and enforcement activities within their own jurisdiction. The GDPR provides a contrasting model, whereby enforcement is decentralised and co-ordinated by an independent body, the European Data Protection Supervisor, which was established by the GDPR to ensure the consistent application of the data protection framework by Member States. In 2018, the EDPS was allocated a budget of €14.4m,²⁰⁸ and employed 96 staff.²⁰⁹ According to the 2020 evaluation

²⁰⁴ This assumes 70% activities performed by officials and temporary agents at a cost of €150,000 per year, 20% Seconded National Experts at an annual cost of €85,000 and 10% contractual agents at an average annual cost of €80,000 per year.

²⁰⁵ European Commission

²⁰⁶ Based on 50% at ISCO1 and 50% at ISCO2 EU mean hourly earnings

²⁰⁷ Assuming 8 hour days and 225 working days

²⁰⁸ https://edps.europa.eu/sites/edp/files/publication/aar_2018_en.pdf

²⁰⁹ https://edps.europa.eu/sites/edp/files/publication/2020-03-17_annual_report_2020_en_0.pdf

report of the GDPR,²¹⁰ the secretariat of the European Data Protection Board, which is provided by the European Data Protection Supervisor (EDPS), is currently composed of 20 people, including legal, IT and communication experts. The Board provides support to national DPAs in the preparation of positions, and organising EDPB meetings and communication.

The model pursued by the GDPR requires significant resourcing at national level. Staff numbers at national DPAs ranged from a projected 1002 in Germany, 260 in Poland and 225 in France for the year 2020, to more limited numbers of 22 in Cyprus, 31 in Latvia and 18 in Estonia for that year.

The combined costs of EU-level co-ordination and national enforcement confirm that a decentralised model is likely to be associated with significantly higher institutional costs on aggregate than a model which would involve the designation of an existing body such as the European Commission as an EU-wide regulatory authority.

The estimated costs for an approach whereby the Commission would undertake the designation, elaboration of remedies and enforcement activities at EU level also lie considerably below the cost of applying the EU Framework for electronic communications, which were estimated at approximately €11.4m for EU-level expenses and €190m for national implementation in the course of the review of the EU Framework for electronic communications (see below).

Table 9. Estimated cost of institutional set-up for electronic communications 2016

Body	Estimated FTEs per year	Assumptions	Total costs including overhead
Commission	60	Blended rate €118,640	€7.3m
BEREC Office	28	Blended rate €137,714	€4.1m
NRAs (excluding spectrum)	41 per NRA (excl spectrum)	Estimated staff cost €66,768, 40% mark-up	€107.3m
RSPG support (in Cion)	2.5	Blended rate €118,640 + €260,000 expenses	€0.6m
SMAAs	32 per SMA	As NRAs	€83.8m
Total costs			€203m

Source: WIK, Ecorys, VVA (2016) Support to the Impact Assessment accompanying the review of the EU Electronic communications Framework

Administrative costs to stakeholders

Data gathering and regulatory activities by the institutions will require inputs and in some cases extensive involvement on the part of online platforms, as well as business users and other affected parties.

In the context of the review of the Recommendation on Relevant Markets Susceptible to ex ante regulation in the electronic communications sector, WIK noted in the support study²¹¹ that “Resources required for the incumbent to engage in market analysis proceedings related to fixed access markets were significantly higher than those of individual non-incumbent operators (4 FTEs per regulated “market”), and were of a similar magnitude or higher than the resources attributed by many NRAs to market analysis proceedings, likely due to the incumbent’s direct engagement in price control proceedings, accounting separation and the preparation of Reference Offers.” If we assume that remedies on a gatekeeper platform

²¹⁰ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020SC0115>

²¹¹ <https://op.europa.eu/en/publication-detail/-/publication/7309fa31-b758-11ea-bb7a-01aa75ed71a1/language-en>

subject to ex ante controls focus on its “core” business area, required resources might be similar to that associated with a single “market” in the context of ex ante regulation in electronic communications. However, there may be additional complexities associated with platforms compared with electronic communications, and the conglomerate nature of the largest platforms may also result in obligations which cover a number of business areas.

If 10 FTEs are required to address regulatory compliance per regulated gatekeeper platform (equivalent to 2.5 “markets” in electronic communications) and if 10 major platforms are subject to ex ante regulation via self-executing clauses only (option 1), the total cost associated with addressing ex ante regulatory obligations could be around €6.4m in total (€635,000 per platform),²¹² assuming the resource is priced at 50% ISCO1 and 50% ISCO2 level. If an additional 4 FTEs were required to additionally address some detailed case by case obligations, additional costs of around €250,000 would apply per platform and the total cost for 10 platforms would increase to around €8.9m. If all obligations were case by case and this required an additional 4 FTEs per platform, the total cost for 10 regulated platforms would increase to €11.4m.

These estimates do not however include the cost of external legal advice and appeals. Costs for both the European Commission and stakeholders are likely to be proportionately higher for options which entail greater degrees of flexibility (and therefore scope for legal challenge). Thus, the total costs for options 2 and 3 could be higher in the order of several million euros in the event of legal challenge. At the upper bound, a large platform interviewed for the support study considered that the enforcement costs for implementing tailored ex ante regulation could vary widely, ranging from a minimum of €15m with centralised enforcement and limited intervention scope, up to €30m or more if the interventions were distributed across multiple markets, and the scope was wide. If these estimates are correct, then a maximum of around €300m in compliance and regulatory expenses might be associated with obligations applying to 10 platforms.

If these estimates are correct and if a centralised enforcement is assumed, the costs to platforms with gatekeeper obligations might be comparable to those associated with continuous compliance with the GDPR, which were reported in a survey by DataGrail²¹³ at \$USD16m for an average Fortune 500 company. However, unlike the GDPR (or the P2B Regulation), costs would be concentrated on a few very large firms, rather than applying to all. Moreover, there is reason to believe that costs per large platform would be lower than those associated with the GDPR, since the planned DMA would address a few specific practices which would necessitate behavioural (or structural) change in a number of key areas, whereas the requirements of the GDPR permeate all data gathering activities.

Costs in comparison with benefits

As discussed in section h.iv, the benefits of ex ante regulation on gatekeeper platforms could include price reductions and associated increases in consumer welfare, as well as greater innovation potential amongst smaller businesses. In its study of the digital advertising market,²¹⁴ the UK Consumers and Markets Authority observed that in 2019, total expenditure on digital advertising was around £500 per household in the UK. Reductions in any excessive advertising charges could flow through to reduced prices across a wide range of goods and services to customers. We have also calculated that, if the commission charged by the Apple App Store is excessive and those charges were reduced by half (from 30% to 15%), this could increase EU consumer surplus by €490m if the benefits are passed onto consumers through lower prices, or create the potential for additional investment and

²¹² This assumes an FTE cost based on 50% ISCO1 and 50% ISCO2

²¹³ <https://medium.com/@drfazal/the-cost-of-gdpr-compliance-8e58a2b5232e>

²¹⁴ https://assets.publishing.service.gov.uk/media/5efc57ed3a6f4023d242ed56/Final_report_1_July_2020_.pdf

innovation by app developers. Measures which limit the ability of gatekeepers to maintain their market position and/or facilitate switching by business users could also potentially support increases in venture capital funding in Europe, which far exceed the enforcement costs associated with ex ante regulation.²¹⁵

There is a risk that inappropriate ex ante regulation of gatekeeper platforms could fail to reduce prices to consumers, in the event that lower commission charges are for example recovered in other ways (e.g. increased advertising charges, higher delivery charges or higher charges for devices in the case of app stores). In telecoms, this potential effect (e.g. in the context of reductions in mobile termination rates and roaming charges) has been referred to as the “waterbed” effect. Valletti and Genakos tested the effects of reductions in termination rates on other charges levied to mobile customers in a 2007 study.²¹⁶ They found that reductions in termination rates due to regulation were in fact associated with increases in retail prices for telephony and reduced profits for the regulated firms. However, the effect was not complete, as prior to the introduction of regulation, mobile operators had not fully passed on “excess” rents from termination to their customers through lower prices elsewhere. Valletti and Genakos concluded that the “more incomplete the waterbed effect, the easier it is to justify regulatory interventions”. The lack of a complete waterbed effect in the context of telecoms, is confirmed in the European Commission’s evaluation report²¹⁷ on the 2009 Commission Recommendation concerning fixed and mobile termination rates, which concluded that the measure had led to a social welfare benefit of €1.7bIn in the worst case scenario, compared with the situation in the absence of termination rate regulation.

In the context of digital platforms, there is a risk of a waterbed effect, especially where conglomerate platforms are able to raise prices in other business areas or revenue-generating services. Examples of such conduct might involve a gatekeeper platform compensating for reduced app store commissions by increasing the price of hardware, or an e-commerce platform compensating for reduced commissions through increasing delivery charges. However, high cashflows and profit margins associated with the largest platforms (and the substantial gap they maintain in this regard compared with smaller players) suggest that if a transfer of “excessive” charges occurs from one area to another, this may be an indication of wider competitive challenges elsewhere in the platform ecosystem, rather than indicating that ex ante regulation in the target area is ineffective or unnecessary. In practice, in the two examples mentioned, competition between device manufacturers and measures which facilitate competition from alternative fulfilment services (e.g. by prohibiting self-preferencing favouring the listing of own fulfilment services) should in principle limit the potential for gatekeeper firms to recover excess profits from a regulated area by increasing charges in another.

It is also possible that ex ante regulation of gatekeeper platforms could also fail to increase (or even reduce) investment in R&D and improve service quality, if the benefits of integration and conglomeration and concentration of cashflows and R&D by a limited group of companies, outweigh the benefits that can be achieved through innovation from a more diverse group of companies. There is limited empirical evidence on this point in the field of digital platforms. However, there is evidence to suggest that open systems enabling investment and innovation by a more diverse group of companies improved quality in

²¹⁵ See discussion on constraints in the availability of venture capital in section 1.2.6

²¹⁶ See for example <https://voxeu.org/article/mobile-regulation-and-waterbed-effect#:~:text=As%20a%20result%2C%20regulators%20are,as%20the%20%E2%80%9Cwaterbed%20effect%E2%80%9D>.

²¹⁷ <https://ec.europa.eu/digital-single-market/en/news/evaluation-report-commissions-2009-recommendation-termination-rates>

electronic communications (in the field of copper and fibre-based broadband provision).²¹⁸ Similar effects are noted in research by Boudreau on open technology platforms.²¹⁹

Furthermore, aside from benefits associated with increased choice, quality and innovation, a key aim of the proposed Regulation is to address unfair practices, which result in unequal distribution of revenues and profits amongst different firms. An ex ante measure which explicitly seeks to address unfair contract terms and prevent foreclosure, should provide benefits to a multitude of small businesses and start-up companies, and in turn to their employees and customers.

We conclude that the benefits to SMEs, start-ups and consumers from measures which are particularly effective in achieving the aims of increasing contestability, boosting innovation and addressing barriers to the single market are likely to substantially exceed the costs of the measure. On the expectation that option 1 would not be entirely effective in achieving these goals for the reasons explained above, while option 3 would be effective, but more costly, time-consuming and less legally certain than option 2, we conclude that **option 2 would be the most efficient solution in addressing the identified problems.**

iii. Coherence

A coherent measure should be both internally coherent, and coherent with respect to external instruments including competition law, the P2B Regulation, the consumer acquis and data protection legislation.

As long as it complements and does not contradict existing measures, ex ante regulatory intervention under all three of the options considered should be coherent with existing provisions. Importantly, ex ante regulation serves to complement rather than contradict competition law, because the proposed objectives for ex ante regulation under the DMA are wider than those applying to competition law, the threshold for intervention is distinct and specific to platforms (in similar vein to the specific approach taken to identify systemic banks), and the primary intention is to change conduct on an ongoing basis rather than sanction past abuses. Moreover, ex ante regulation would serve to complement and complete provisions concerning data portability in the GDPR²²⁰ as well as data access in the P2B Regulation,²²¹ by providing the means for detailed obligations, implementation and enforcement. Care will be needed however to ensure consistency and coherence between the data measures envisaged for the DMA, and any measures taken to support a European data strategy.²²²

²¹⁸ See Nardotto, Valletti, Verboven (2015) Unbundling the incumbent: evidence from UK broadband <https://onlinelibrary.wiley.com/doi/full/10.1111/jeea.12127>. The effects of unbundled access to fibre on quality and innovation are also explored in the WIK (2020) study for the Commission: The role of State Aid for the rapid deployment of broadband networks in the UK <https://ec.europa.eu/competition/publications/reports/kd0420461enn.pdf>

²¹⁹ Boudreau (2010) Open platform strategies and innovation: granting access vs devolving control <http://kevinboudreau.com/PAPER%20Open%20Platform%20Complement%20Draft.pdf>

²²⁰ Article 20 of the GDPR provides a right to data portability. Specifically “The data subject shall have the right to receive the personal data concerning him or her, which he or she has provided to a controller, in a structured, commonly used and machine-readable format and have the right to transmit those data to another controller without hindrance from the controller to which the personal data have been provided” However, the GDPR does not set standards or specify the detailed processes through which data will be provided.

²²¹ Article 9 of the P2B Regulation requires transparency regarding the availability of and access to customer data, but does not require the online intermediary to make this data available to business users

²²² https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/european-data-strategy_en

iv. Subsidiarity and proportionality (EU value add)

Stakeholders interviewed for this study as well as organisations such as BEREC, the Dutch competition authority, and French administration have generally highlighted the need for action at EU level to address issues concerning platforms which are pan-European and often global in scale.

Option 1 (non-dynamic regulation) provides only a partial solution to the identified problems, as it would not enable problems which require tailored or elaborated remedies to be effectively addressed. Thus, in addition to limiting the added value of the measure overall, there is a risk that national administrations may feel the need to adopt national measures to fill the gap, which could undermine the coherence of the single market.

Options 2 and 3 (semi-dynamic and dynamic regulation) are most likely to provide the tools that are needed to address problems associated with EU-wide gatekeeper platforms, and ensure a harmonised approach to regulation benefiting both platforms and their users, limiting the need for additional intervention at national level. Due to its core of clear designation criteria and specific directly applicable measures and thus reduced scope for uncertainty and legal challenge, option 2 is likely to result in greater added value at EU level than option 3, which would rely entirely on case by case designation and implementation.

v. Conclusions

The conclusions of our analysis are shown in the following table. The preferred option is option 2a (semi-dynamic regulation), because it strikes an appropriate balance between legal certainty and flexibility, which should result in the most targeted and effective interventions, while limiting the degree of costs incurred for both the regulatory authority and stakeholders. Specifically, it provides clarity concerning the regulatory treatment of the most significant gatekeeper platforms and addresses a core set of problems through self-executing provisions – while leaving sufficient flexibility for other gatekeepers to be identified and for certain more nuanced provisions to be elaborated by the regulatory authority. Applying option 2b – semi-dynamic regulation - but with a low designation threshold may offer a similar degree of effectiveness and even greater legal certainty than option 2a. However,, this comes at the expense of higher administrative costs for certain stakeholders and potential unintended negative consequences, if platforms which do not pose problems are captured within the lower threshold.

Option 1 (non-dynamic regulation) is the most legally certain of the options considered, and may come with the lowest administrative costs. However, the measure may be poorly targeted, due to the lack of any flexibility in the designation and design of obligations. The risk of unintended negative effects (either under or over-regulation) is highest under this option.

Option 3 (fully dynamic regulation) provides the least legal certainty from the options considered (due to the degree of flexibility granted to the regulatory authority and risk of delay and appeal), while being costly to administer.

Options	Suboptions	Effectiveness			Efficiency		Benefits	Coherence	EU Value add
		Address unfair conduct	Ensure contestable markets	Enhance coherence and legal certainty	Administrative costs to EU / MS and stakeholders	Unintended costs / mistargeted regulation			
Option 1: Non-dynamic regulation	1a: high designation threshold	+	+/-	+++	Lowest	Medium	+	+++	+
	1b: low designation threshold	++	+/-	+++	Low	High	+	+++	+
Option 2: Semi-dynamic regulation	2a: high designation threshold	+++	+++	+	Medium	Low	+++	+++	+++
	2b: low designation threshold	+++	+++	++	Medium	Medium	++	+++	++
Option 3: Fully dynamic regulation		++	++	-	High	Low	++	+	++

h. Socio-economic impacts

This section presents research on the socio-economic impacts associated with implementing the preferred option compared with the status quo. The analysis is based on qualitative evidence and to the possible extent on quantitative and monetary data. The analysis focuses on the most relevant impacts.

This analysis of impacts assumes, in line with the objectives (see section d) that options seek to address gatekeepers' unfair conduct, address market failures to ensure that digital markets are contestable, and ensure a coherent approach to regulation across the single market. Fair conduct and contestability are expected to result in a more even distribution of revenues, profits and cash-flows among platforms and incentivises patterns of innovation/R&D that are more beneficial for consumers' welfare. If gatekeeper platforms innovate to maintain entry barriers, instead of focusing on new products and services, consumers end up with lower freedom of choice.

Likewise, large funds that could be invested in innovative new products/services are diverted from R&D to mergers and acquisition (M&A).

Therefore, initiatives that promote fair competition and market contestability are expected to have a positive impact on innovation and consumer welfare. These hypotheses will be explored in detail under each policy option below.

i. Baseline scenario (option 0)

The analysis for the baseline scenario assumes that no other ex-ante intervention to address gatekeeper power is introduced. Hence, **this is the 'cost of non-Europe' for this intervention.**

Internal market

Qualitative: The fragmentation of the internal market is reflected in the trends in initiatives and legislation at national level. Higher fragmentation of the digital single market would impact the amount of online cross-border trade (see trends for this impact below). Desk research suggests that the trends in fragmentation of the internal market on this matter is very likely and considerable unless an EU intervention is introduced.

Quantitative/Monetary: the quantitative impact for this is done in terms of online cross-border trade.

Economic growth

Qualitative: The platform economy contributes heavily to the European economy as revealed by its size, and its size is expected to grow steadily. Traffic share is one of the most important proxies of the sector. The top 50 online platforms represent 60% of the traffic share in Europe, reaching revenues for about EUR 276 billion in 2018 and employing almost 600,000 people. The size of the e-commerce sector in Europe is expected to reach EUR 621 billion by the end of 2019, showing a 13.6% annual growth^{223,224}.

Quantitative/monetary:

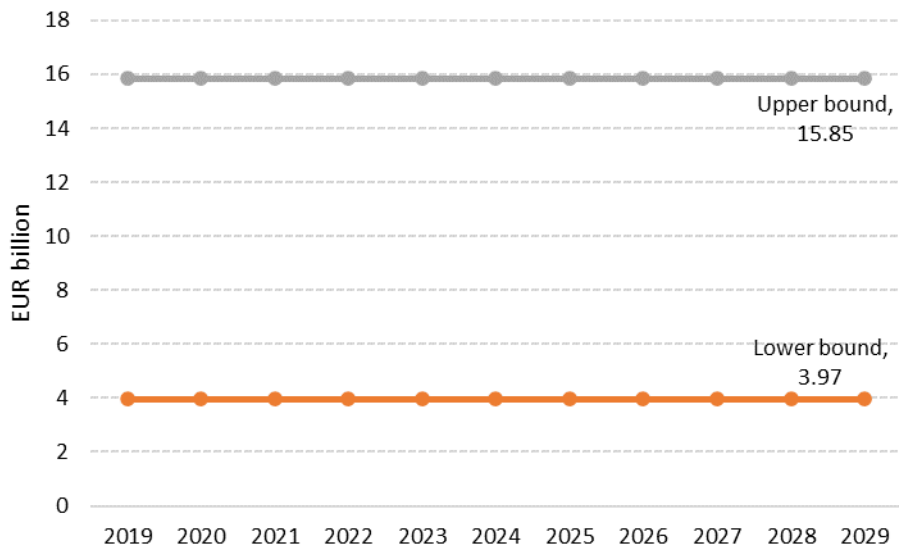
²²³ <https://ecommercenews.eu/ecommerce-in-europe-e621-billion-in-2019/>

²²⁴ <https://www.ecommercewiki.org/reports/792/european-ecommerce-report-2019-free>

Estimations based on secondary sources

Evidence points to **the unrealised potential of the platform economy** if the trends in unfair business practices and leverage of gatekeeper power remain unchallenged²²⁵. The unrealised potential of the platform economy ranges between EUR 3.97 and EUR 15.85 billion per year, including the loss of commissions for platforms between EUR 0.4 and EUR 1.6 billion²²⁶.

Figure 6. Upper and lower bound estimate of the unlocked economic potential of the platform economy



Source: European Commission (2018). Proposal for a Regulation of the European Parliament and of the Council on promoting fairness and transparency for business users of online intermediation services.

Therefore, the annual opportunity cost of business-as-usual (BAU), namely, the unrealised potential of the platform economy and the commissions, ranges between EUR 4.37 and EUR 17.45 billion per year.

In 10 years, such estimate means between EUR 43.7 and EUR 174.5 billion.

Input-output modelling (primary research)

ICF has implemented an input-output modelling approach to estimate the impact of higher R&D in the platform economy on GDP and employment for the EU.

The estimation suggest that higher investment in R&D in the ICT sector in EU27 leads to an overall increase in the EU27 income between 0.09% to 0.17% of 2014 EU GDP²²⁷, this is between EUR 12 billion and EUR 23 billion. The same leads to an increase in EU27 employment levels between 0.07% to 0.15% of 2014 EU employment, that is, between 136,387 and 294,236 new jobs created.

Both impacts on growth and employment are very conservative estimates because they result from an increase in R&D investment. However, market contestability and fairer

²²⁵ This is assuming the P2B Regulation and the existing measures are insufficient as discussed in the problem definition section.

²²⁶ European Commission (2018). Proposal for a Regulation of the European Parliament and of the Council on promoting fairness and transparency for business users of online intermediation services

²²⁷ The most recent available input-output matrix is for 2014, yet the matrix does not change significantly across time.

competition are expected to produce important spillover effects that result in higher innovation, increase in market size, increase of entrepreneurship within and beyond the platform economy and growth in other traditional sectors. Online cross-border trade is expected to be highly impacted by this virtuous dynamic. Therefore, this estimation is not taking into account further rounds of direct and indirect effects with positive loops in the long-term.

Such impacts in the baseline scenario are not likely to be seen, which represents a missed opportunity.

Compliance costs

Qualitative: A 2019 EU Parliament study on the contribution of the digital single market (DSM) to economic growth shows that regulatory measures in this sector can result in administrative burden, compliance costs and hassle costs. Recently, some initiatives related to the e-commerce and online platforms sector were introduced to remove impediments to cross-border trade such as the prohibition of unjustified geo-blocking, the cross-border portability of some digital content, and the simplification of VAT declaration collection. Yet, the evaluation of those initiatives is still ongoing or too early to identify the impact on costs²²⁸.

We can assume that the current regulatory landscape does not impose substantial compliance costs.

Innovation

Qualitative: As discussed in the literature review above, companies innovate to either compete 'for the market' and secure a gatekeeper status or to compete 'in the market' in which case innovation is more virtuous and advantageous for consumers. Although the sector of online platforms invests heavily in innovation, smaller companies that depend on gatekeepers are discouraged to innovate so as not to compete with the dominant firms. Hence, innovation that contributes to such dependency is incentivised²²⁹.

In addition, financial resources that could be invested in R&D are diverted to mergers and acquisitions, which results in higher market concentration instead of improvements in the quality and quantity of products and services for consumers. This pattern of innovation dedicated to competing 'for the market' has a detrimental effect on consumer choice and surplus.

In addition, the positive impact on innovation stemming from higher market contestability is not limited to diversion of money from M&A to R&D. Other expected indirect effects include an increase in entrepreneurship and creation of new products and solutions that are targeting consumers' needs rather than focused on exploiting a gatekeeping position. This may have a multiplicative effect that increase the size of the market, and hence, GDP and online cross-border trade.

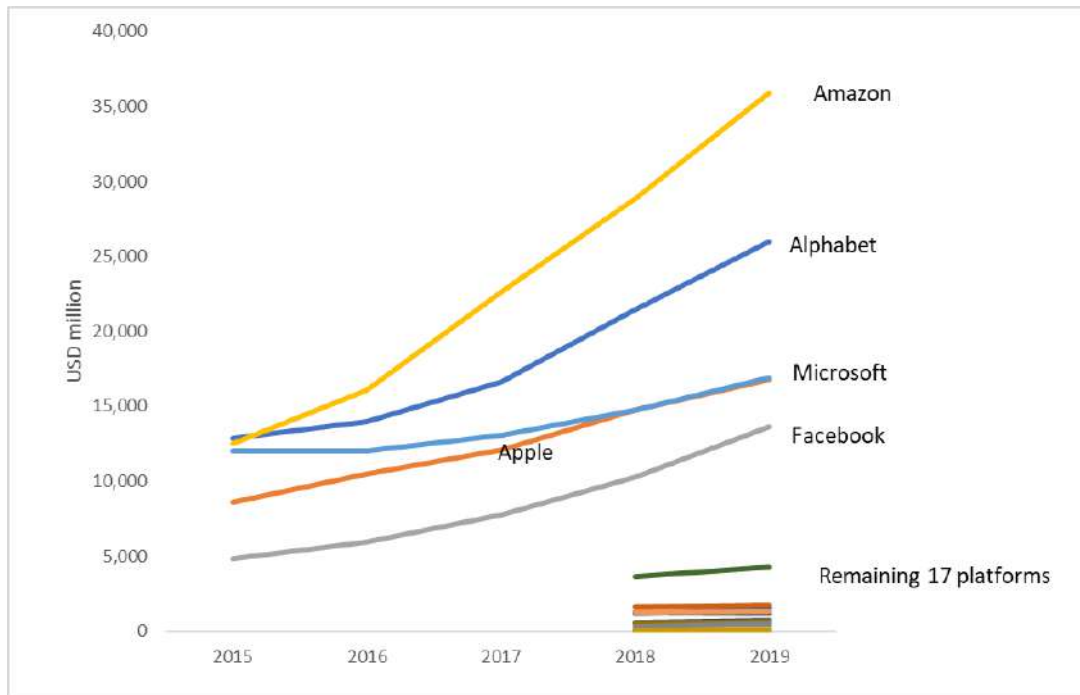
Quantitative/monetary: The trends in the investment in R&D depicted in Figure 7 below suggest two main facts:

- A cluster of high volumes of investment among big five companies;
- A widening gap across time between large and small companies.

²²⁸ European Parliament (2019). Contribution to Growth: European Digital Single Market. Delivering improved rights for European citizens and businesses. Available at: [https://www.europarl.europa.eu/RegData/etudes/STUD/2019/638395/IPOL_STU\(2019\)638395_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2019/638395/IPOL_STU(2019)638395_EN.pdf)

²²⁹ P2B SWD

Figure 7. R&D investment by companies (2015-2019) in USD million

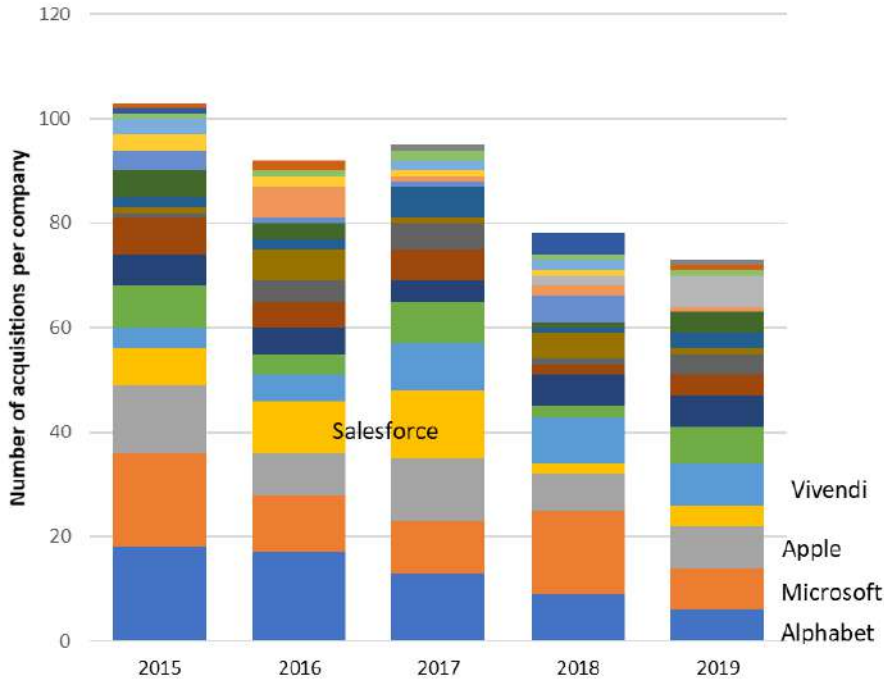


Source: Statista

Therefore, the trend in R&D investment suggests an increasing market concentration and innovation clustered across big players.

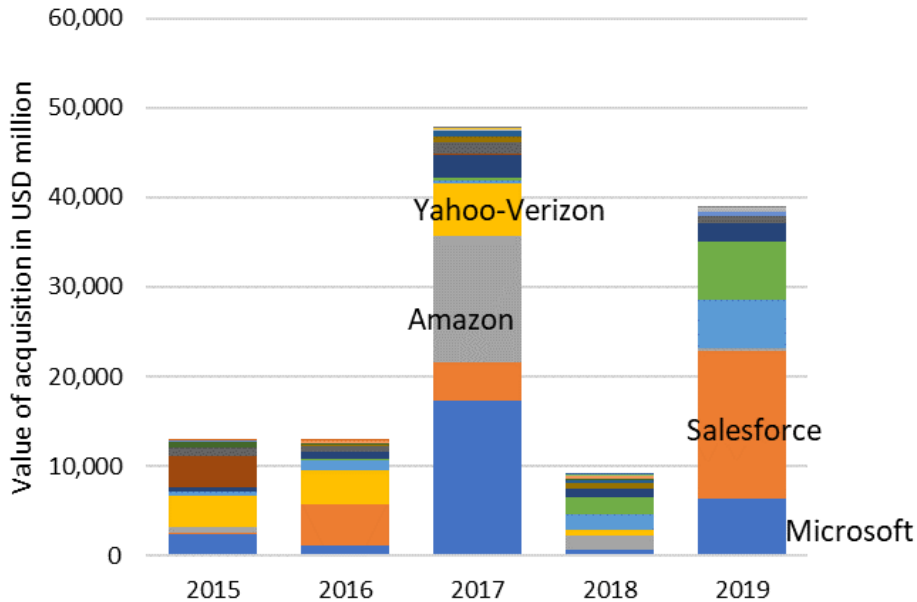
Figure 8 below shows five big companies behind the largest number of acquisitions. Although the overall trend is negative, this could suggest a tipping point and higher market concentration. Figure 9 below shows the monetary values of such acquisitions. It appears that in 2015, 2016 and 2018, the total value of acquisitions ranged between USD 9 billion (EUR 7.7 million) and USD 12 billion (EUR 10.2 million), with 2017 and 2019 as atypical years reaching between USD 38 billion (EUR 32.3 million) and USD 47 billion (EUR 39.95).

Figure 8. Number of acquisitions per company (2015-2019)



Source: Statista

Figure 9. Value of the acquisitions (2015-2019) in USD million



Source: Statista

If we assume that 2015, 2016 and 2018 are typical years, the amount above the average could be considered a foregone investment diverted from innovation. This would range between USD 26 billion (**EUR 22.1 billion**) and USD 38 billion (**EUR 32.3 billion**) that could have been spent on R&D.

Therefore, **the opportunity cost is between USD 260 billion (EUR 221 billion) and USD 380 billion (EUR 323 billion) over 10 years.**

Fair competition

Qualitative: There are strong links between patterns of competition and innovation according to our desk research discussed at the beginning of this section. Platforms are preventing innovation from competitors in many different ways. Gilbert and Newbery (1982) claim that preventing patents or pre-emptive activities, for instance, is one way to gain monopoly power and to increase barriers to entry despite potential new entry. If this pattern is dominant, the pace of innovation in the long-run slows down²³⁰. The evidence above on the impacts on innovation showed the concentration of R&D investment among a few dominant firms, and with a sustained trend.

An increase in market contestability is expected to contribute to a fairer competition. Market concentration indexes are good proxies of competition. More competition associated with lower entry/exit barriers is expected to result in a more even distribution of market shares, users share, cash-flow, profits.

A more competitive market, and a change of patterns of competition from 'for the market' to 'in the market' is expected to contribute heavily towards a virtuous innovation pattern and improve consumer surplus. Consumers would enjoy more and better products/services and lower online harm, considering that online harm and market concentration are positively associated.

Quantitative: A standard measured of market concentration is the Herfindahl-Hirschman Index (HHI). This index ranges from 0 to 10,000. A market is considered:

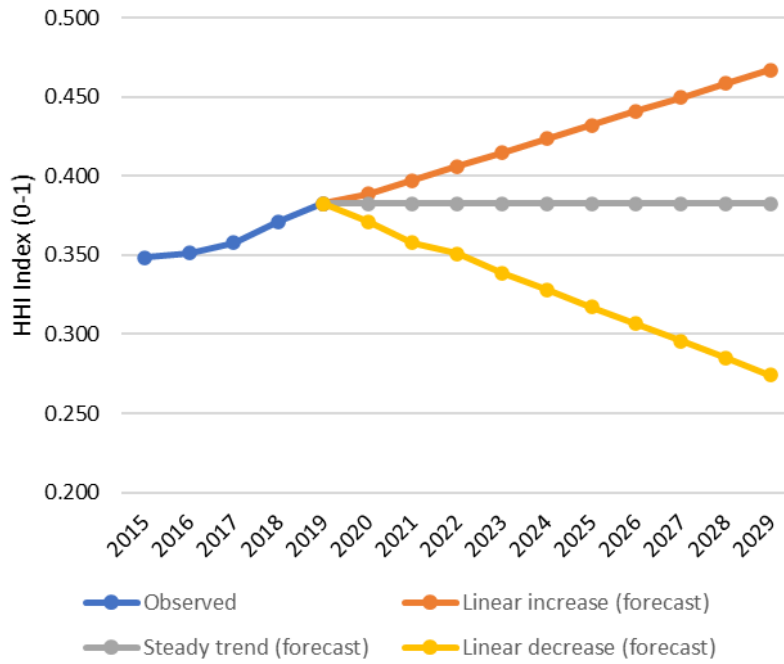
- competitive if $HHI < 1,500$,
- moderately competitive if $1,500 < HHI < 2,500$
- highly concentrated if $HHI \geq 2,500$

The index can be normalised so that, for example, 0.25 is 2,500 and 10,000 is 1, as in Figure 10 below, showing the HHI based on the revenue shares.

The trend shows an exponential growth since 2015, with a sharp increase in 2017. If a conservative assumption is made of a linear growth trend for the next 10 years, the market concentration may reach up to 0.46 in 2029. A second possible scenario is a steady state around 0.38 as in 2019, and a third scenario with a linear falling tendency.

²³⁰ Gilbert, R.J. and Newbery, D.M., 1982. Preemptive patenting and the persistence of monopoly. The American Economic Review, pp.514-526.

Figure 10. Observed and forecast trend in the market concentration of the platform economy, based on revenue shares (2015-2029)

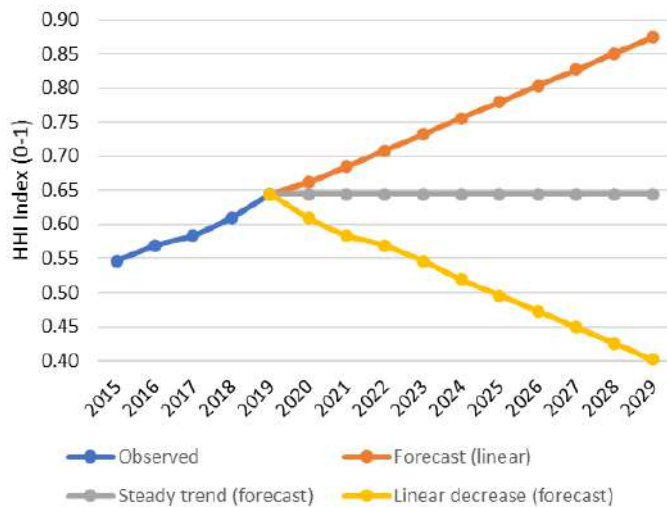


Source: Statista

Note: the increase/decrease rate for the predicted scenarios is extrapolated based on the observed data points, assuming similar rates.

Similarly for the concentration index based on the distribution of users, Figure 11 below shows the observed trend (2015-2019) and three scenarios until 2029.

Figure 11. Observed and forecast trend in the market concentration of the platform economy, based on user shares (2015-2029)



Source: Statista

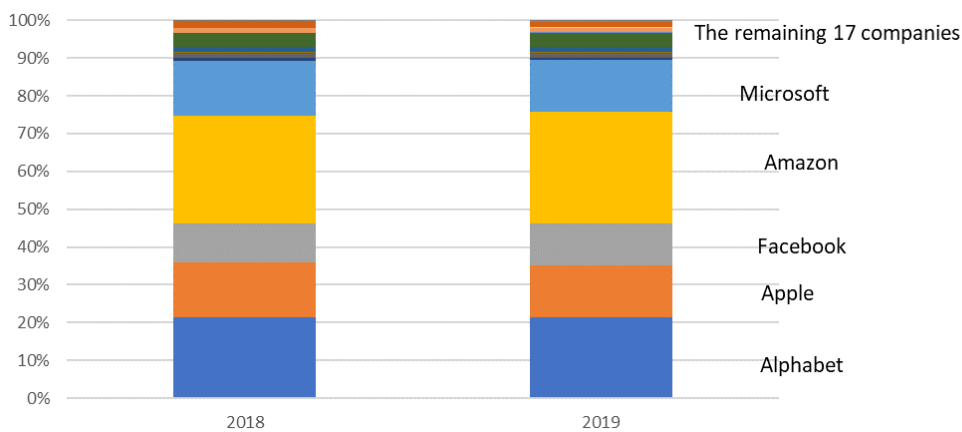
Note: the increase/decrease rate for the predicted scenarios is extrapolated based on the observed data points, assuming similar rates.

Moreover, concentration results in an accumulation of cash-flow that is available for R&D investment and innovation or mergers & acquisitions. Figure 12 below illustrates the concentration of liquidity among the top five companies, each of them ranging between 10% and 30%, while the remaining 17 companies are on average below 1%. The total free cash-flow in 2018 reached USD 100,680 million and USD 121,858 million in 2019. Therefore, five companies accumulate 90% of total free cash-flow (USD 90,612 million) that could be distributed among all 22 companies if competition were lower.

This suggests that smaller companies may face some financial constraints, failing to attract venture capital to finance R&D projects, while large firms have enough own funds to embark on innovation.

The trend seems steady although two years may not be enough to extrapolate over 10 years.

Figure 12. Share of free cash-flow per company on total cash-flow of the sector



Source: Statista

Quantitative/monetary: Assuming a linear and continuous trend, the market concentration (measured by the HHI Index) in revenue shares would increase up to 0.46 points by 2029 compared to 0.38 in 2019. The same holds for concentration in the user shares reaching 0.87 by 2029 in contrast to 0.64 in 2019, following similar assumptions.

The top five companies accumulate 90% of total free cash-flow (USD 90,612 million) that could be distributed among all 22 companies if competition was much higher. This may represent an opportunity cost.

Consumer surplus

Qualitative: As discussed in the desk research, market concentration is detrimental for consumer surplus as it results mainly in lower choice and higher prices/costs. Online (financial) harms and poor product/service quality are also likely effects.

Quantitative/monetary: Although data to estimate the loss in consumer surplus is limited, there is some illustrative evidence. For example, if Apple's commission fee were halved from 30% to 15%, the average prices of apps in the AppStore could fall, which would increase consumer surplus up to **EUR 490 million in the EU per year** based on Statista data.

Moreover, if it is assumed that current expenditures on advertising per users are excessive and driven by high market concentration, such amounts could be a proxy for the consumer

detriment. For example, in 2019 EUR 546 was spent in the UK on advertising per user²³¹. Given the total number of users in the platform economy is about 3.3 billion²³², the consumer surplus would reach EUR 1,803 billion, assuming the number of consumers does not change with the level of competition in the market²³³.

Brynjolfsson et al (2003) estimated that an increase in product variety of online bookstores increased consumer welfare between EUR 575 million and EUR 810 million in 2000²³⁴ for that specific segment.

A JRC (2014) study measured the value of the internet for consumers and estimated consumer surplus at between EUR 18 billion (Italy – lower bound) and EUR 44 billion (Germany – upper bound)²³⁵. As these figures were outdated, the authors have updated the **estimation for this study giving an impact on consumer surplus for about EUR 13 billion per year**. In the baseline scenario, this is an opportunity cost.

In a 10-years period, such impact amounts to EUR 130 billion over 10 years²³⁶.

Online cross-border trade

Quantitative/monetary: As discussed in the literature review, the **size of online cross-border trade in Europe reached EUR 108.75 billion of turnover in 2019**, representing 14.4% annual growth compared to 2018. **Almost 24% of the total online trade in Europe is cross-border.**

However, if there is no EU intervention there is a risk of fragmentation in the digital single market which might reverse the positive trends in cross-border online trade.

It is difficult to predict by how much online cross-border trade would decrease as a result of digital market fragmentation. However, if the trend in online cross-border trade is similar to the cross-border trade of all goods and services following market integration, and that the rate of increase is similar to the rate of decrease, that information could serve as a proxy. The amount of cross-border traded goods and services grew 10% per year during the integration of the single market. This means that the fragmentation of the digital single market could result in a decrease of online cross-border trade by 10% per year.

Figure 13 below depicts three hypothetical scenarios for the trend in online cross-border trade from 2019 to 2029 relying on the observed values in 2018 and 2019:

- **Scenario A:** the annual growth continues at 14.4% per year
- **Scenario B (the baseline):** decrease by 10% per year
- **Scenario C:** increasing by 10% per year
- **Scenario D:** steady state at values in 2019

²³¹ https://assets.publishing.service.gov.uk/media/5efc57ed3a6f4023d242ed56/Final_report_1_July_2020_.pdf

²³² Statista, total number of users in 2019

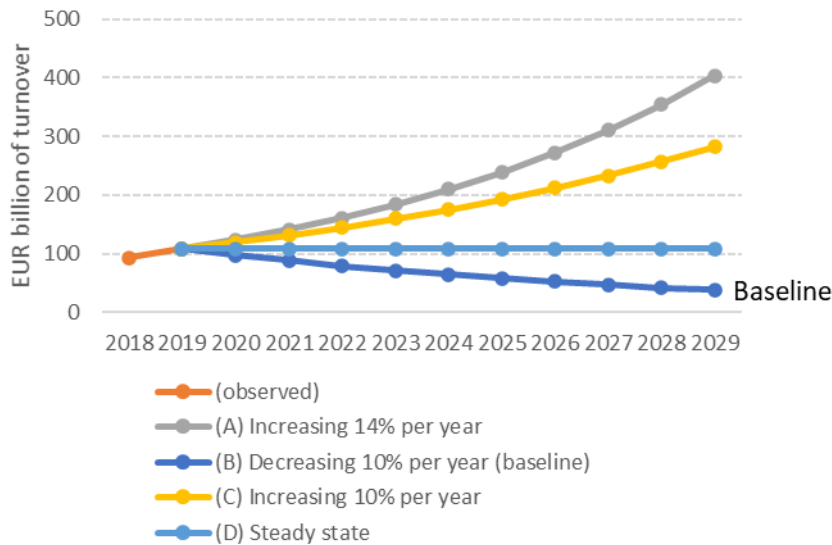
²³³ It may be possible change in the distribution between platforms, but we assume here that the total number of users remains relatively unchanged.

²³⁴ Brynjolfsson, E., Hu, Y. (Jeffrey) ., Smith, M.D., 2003. Consumer Surplus in the Digital Economy: Estimating the Value of Increased Product Variety at Online Booksellers. Management Science.. doi:10.1287/mnsc.49.11.1580.20580. <https://pubsonline.informs.org/doi/10.1287/mnsc.49.11.1580.20580>

²³⁵ Pantea, S. and Martens, B., 2014. The value of the internet for consumers. Available at SSRN 2446962. <https://ec.europa.eu/jrc/sites/jrcsh/files/ValueOfTheInternetJRC89978.pdf>

²³⁶ The extrapolation over 10 years assumes a linear trend, that is, multiplying the annual value by 10

Figure 13. Trends (observed and forecast) of online cross-border trade (2018-2029)



In the baseline scenario (B), the online cross-border trade would decrease by 10% per year, representing an opportunity cost given by the difference with respect to the most optimistic scenario (A). Such a difference over the period would sum to EUR 1,759.86 billion, which is an upper bound.

Therefore, **the opportunity cost of digital market fragmentation is (upper bound) EUR 1.76 trillion after 10 years**. Higher market contestability that results in higher online cross-border trade will most likely result in a similar effect on GDP and have spillover effects on other economic sectors, boosting employment, investment and innovation even further.

It is hard to forecast with precision the increase in online cross-border trade as a result of EU intervention, so it has been assumed that online cross-border trade would follow similar trends to offline cross-border trade resulting from market integration.

The opportunity costs estimated here are very conservative as the assumed trends were linear and conservative growth rates. The fast change in the platform economy and interlinks with the rest of the economy suggests that online cross-border trade could see an important exponential growth if enhanced by market contestability, fair competition and virtuous patterns of innovation.

International trade and agreements

There is limited evidence to assess the impact of fair competition and market contestability on international trade in the platform economy.

The next sub-section aims to compare the preferred option with the baseline following the EU Better Regulation tool.

ii. Preferred option (semi-dynamic ex ante regulation)

Option 2 – Semi-dynamic	
Internal market	
Qualitative	It is expected that the preferred option will contribute substantially to the digital single market as countries will not need to introduce

Option 2 – Semi-dynamic

national legislation, and there would be a uniform approach to regulation across Europe, benefiting both platforms and business users.

Quantitative/monetary n/a

Economic growth

Qualitative As this option is expected to be the most effective in terms of addressing the main drivers, the potential of the platform economy should be enhanced. We can assume that the opportunity cost estimated in the baseline ranging between EUR 43.7 and EUR 174.5 billion over 10 years would be recovered.

Quantitative/monetary Secondary sources: opportunity cost totally offset

Input-output modelling: Higher investment in R&D in the ICT sector in EU27 leads to an overall increase in the EU27 income between 0.09% to 0.17% of 2014 EU GDP²³⁷, this is between EUR 12 million and EUR 23 million.

The same leads to an increase in in EU27 between 0.07% to 0.15% of 2014 EU employment.

Compliance costs

Qualitative n/a

Quantitative/monetary It is expected that compliance costs in this option will affect the European Commission, national authorities and 10 gatekeepers as below:

Commission costs EUR 8.2 Million

EUR 3.4 Million – national authorities (EU27)

EUR 8.9 Million – compliance costs for 10 gatekeepers

Increase. **The overall annual cost would reach EUR 11.8m** (if travel for meetings of the network is also included)

Innovation

Qualitative It is assumed innovation will be encouraged as long as market competition is enforced. This should trigger a virtuous pattern of innovation in which case companies would invest in R&D rather than mergers and acquisition.

Quantitative/monetary Potentially, the opportunity cost between EUR 204 billion and EUR 300 billion over 10 years will be offset; however, there is not enough evidence to estimate the exact figure.

²³⁷ The most recent available input-output matrix is for 2014, yet the matrix does not change significantly across time.

Option 2 – Semi-dynamic

Competition

Qualitative It is expected that competition will improve substantially. Barriers to entry should be weakened substantially.

Quantitative/monetary We can assume that the HHI index would become closer to the benchmark of a competitive market, namely, 0.25. However, it is uncertain the trend over time; if linear it would take a number of years until reaching the benchmark.

Consumer surplus

Qualitative It is expected that the preferred option will be the most effective to address the main problems of dependency and networks effects. The higher level of competition may result in lower prices as companies could decrease spending on advertising and lower costs; such savings could be passed onto consumers (especially where (price) competition increases).

Quantitative/monetary **The monetary value of the increase in consumer surplus, according to the latest JRC estimation, is about 13 billion per year.**

The consumer surplus could increase further if prices decreased due to lower fees. For example, if Apple's commission fee were halved from 30% to 15%, the average prices of apps in the AppStore could fall. The effect of lower fees on consumer surplus could be around EUR 490 million per year in the EU.

Online cross-border trade

Qualitative Assuming the potential fragmentation of the DSM is addressed, the most optimistic scenario of growth in online cross-border trade would offset any opportunity cost

Quantitative/monetary **In the baseline, the opportunity cost was estimated between EUR 450 billion and EUR 1.76 trillion after 10 years. In Option 3 this is a gain.**

iii. Other options

The effects of option 1 are likely to be reduced compared with those of option 2. This is because the lack of scope for tailored measures is likely to reduce the number of gatekeepers and types of issues that can be addressed (reducing its efficacy).

Most of the conclusions for option 2 are similar to option 3. However, a key difference is that the impacts in option 3 may take longer to materialise due to the increased timescales for intervention and increased risk of legal dispute, and this also brings more uncertainty to the overall impact in the 10-years period.

iv. Summary of impacts

Impacts per option

This section presents the summary of the qualitative assessment and the quantitative estimates for the three policy options compared with the baseline scenario. Table 10 set out the scoring system for the qualitative assessment described in Table 11 below.

Table 10. Scoring system for qualitative assessment

Score	Description
[+++]	Substantial benefit (3)
[++]	Moderate benefit (2)
[+]	Some benefit (1)
[≈]	Negligible or null impact (0)
[-]	Some cost (-1)
[- -]	Moderate cost (-2)
[- - -]	Substantial cost (-3)

Table 11. Summary of qualitative and quantitative impacts per option

Type of impact	Option 1 – Non dynamic	Option 2 – Semi-dynamic	Option 3 – Fully dynamic
Internal market fragmentation			
Qualitative	<p>Some benefit [+]</p> <p>The effects of this option are likely to be partial due to the challenge in applying all measures in a self-executing manner</p>	<p>Improvement [++]</p> <p>The effect of market contestability on the internal single market is proxied by an increase in online cross-border trade and the indirect/spillover effect in terms of employment, economic growth, innovation and consumer surplus (see details for other related impacts)</p>	<p>Improvement [++]</p> <p>Similar to option 2</p>
Quantitative/monetary	n/a	n/a	n/a
Economic growth			
Qualitative	<p>Negligible effect [≈]</p> <p>Some of the most significant measures require case by case intervention, which is not available under this option.</p>	<p>Positive effect [++]</p> <p>The positive impact on economic growth is direct from a more dynamic platform economy but also indirect by impacting other traditional sectors in the economy, including pull factors from higher online and offline cross-border trade.</p>	<p>Positive effect [+]</p> <p>Similar to option 2</p> <p>The economic impact of this option may be higher than option 2 but it may take longer to materialise. There is more uncertainty under this option.</p>
Quantitative/monetary	Limited or non-significant quantitative effect	<p>Secondary sources: If unlocking the full potential of the platform economy: between EUR 43.7 and EUR 174.5 billion from 2019 to 2029.</p> <p>Input-output microeconomic modelling: Higher investment in R&D in the ICT sector in EU27 leads to an overall increase in the EU27 income between 0.09% to 0.17% of 2014 EU GDP, this is between EUR 12 billion and EUR 23 billion.</p>	Similar to option 2, but with a longer timeframe to materialise and more uncertainty in its realisation

Type of impact	Option 1 – Non dynamic	Option 2 – Semi-dynamic	Option 3 – Fully dynamic
		<p>The same leads to an increase in in EU27 between 0.07% to 0.15% of 2014 EU employment, that is, between 136,387 and 294,236 new jobs created.</p> <p>Both impacts on growth and employment are very conservative estimates because they result from an increase in R&D investment. However, market contestability and more fair competition are expected to produce important spillover effects that result in higher innovation, increase in market size, increase of entrepreneurship within and beyond the platform economy and growth in other traditional sectors. Online cross-border trade is expected to be highly impacted by this virtuous dynamic. Therefore, this estimation is not taking into account further rounds of direct and indirect effects with positive loops in the long-term.</p>	
Compliance costs			
Qualitative	Cost increase, but limited [≈]	Cost increase [-]	Cost increase [- -] It is expected that the costs for this option are higher due to the need for case by case analysis. There is also a greater risk of legal uncertainty and associated costs.
Quantitative/monetary	<p>Total costs to the European and national administrations are estimated at EUR 4.7m.</p> <p>Costs to 10 gatekeepers could be of a similar range.</p>	<p>It is expected that compliance costs in option 3 will affect the European Commission, national authorities and 10 gatekeepers as below.</p> <ul style="list-style-type: none"> • European Commission: EUR 8.2 million • National authorities (EU27): EUR 3.4 million • 10 gatekeepers: EUR 8.9 million 	<p>It is expected that compliance costs in option 3 will affect the European Commission, national authorities and 10 gatekeepers as below.</p> <ul style="list-style-type: none"> • European Commission: EUR 10 million

Type of impact	Option 1 – Non dynamic	Option 2 – Semi-dynamic	Option 3 – Fully dynamic
		Increase. The overall annual cost would reach EUR 11.8 million (including travel)	<ul style="list-style-type: none"> National authorities (EU27): EUR 6 million 10 gatekeepers: EUR 11.4 million Increase. The overall annual cost would reach EUR 17 million (including travel)
Innovation			
Qualitative	Opportunity cost offset [+] Only some of the required measures to address the problem would be implemented in this solution	Opportunity costs offset [++] Financial resources that could be invested in R&D are diverted to mergers and acquisitions (M&A), which results in higher market concentration instead of improvements in the quality and quantity of products and services for consumers. This pattern of innovation dedicated to competing 'for the market' has a detrimental effect on consumer choice and surplus. In addition, the positive impact on innovation stemming from higher market contestability is not limited only to diversion of money from M&A to R&D. Other expected indirect effects include an increase in entrepreneurship and creation of new products and solutions meeting consumers' needs rather than focused on exploiting a gatekeeping position. This may have a multiplicative effect increasing the size of the European single market, and hence, GDP and online cross-border trade (see other impacts in this table).	Opportunity costs offset [++] Similar to option 2, but with a longer timeframe for realisation and potentially greater uncertainty
Quantitative/monetary	More limited indirect spillover effects compared with option 2	No opportunity costs, and positive indirect spillover effects.	Similar to option 2, but subject to delay and uncertainty
Competition			

Type of impact	Option 1 – Non dynamic	Option 2 – Semi-dynamic	Option 3 – Fully dynamic
Qualitative	<p>Limited effect on addressing market concentration [≈]</p> <p>Key measures to address foreclosure are likely to require elaboration by the regulatory authority and thus could not be adequately addressed under this measure</p>	<p>Stop positive trend in market concentration or decrease [++]</p> <p>An increase in market contestability is expected to contribute to a fairer competition. Market concentration indexes are good proxies of competition. More competition associated with lower entry/exit barriers is expected to result in a more even distribution of market shares, users share, cash-flow, profits.</p> <p>A more competitive market, and a change of patterns of competition from 'for the market' to 'in the market' is expected to contribute heavily towards a virtuous innovation pattern and improve consumer surplus. Consumers would enjoy more and better products/services and lower online harm, considering that online harm and market concentration are positively associated (see consumer surplus further below).</p>	<p>Stop positive trend in market concentration or decrease [++]</p> <p>Similar to option 2</p>
Quantitative/monetary	Reduced effects on HHI compared with option 2	Conservative estimate is no increase in the HHI Index, while upper bound means a fall in HHI index on for the user shares by 0.25 points and 0.11 for the revenue shares.	Same effects as option 2, but with greater uncertainty and potential delay
Consumer surplus			
Qualitative	<p>Opportunity cost [++]</p> <p>Some opportunity costs offset, but limited by the narrow scope of this option</p>	<p>Gain [++] and opportunity costs offset</p> <p>Consumer surplus is heavily impacted by the freedom of choice determined by market contestability, competition and patterns of innovation. Consumer surplus, innovation and fairer competition are strongly related and positively feed each other. Consumers' welfare is also enhanced by lower online harm (e.g. use of data, fraud) lead by lower market concentration. Hence, consumers end up with more and better-quality products/services. Prices are expected to decrease.</p>	<p>Gain [++] and opportunity costs offset</p> <p>Similar to option 2, but with greater uncertainty and potential delay</p>
Quantitative/monetary	Not enough evidence to quantify. Lower than option 2.	The monetary value of the increase in consumer surplus, according to the latest JRC estimation, is about 13 billion per year.	Similar to option 2, subject to possible differences in timing

Type of impact	Option 1 – Non dynamic	Option 2 – Semi-dynamic	Option 3 – Fully dynamic
<p>The consumer surplus could increase further if prices decreased due to lower fees. For example, if Apple’s commission fee were halved from 30% to 15%, the average prices of apps in the AppStore could fall. The effect of lower fees on consumer surplus could be around EUR 490 million per year in the EU.</p>			
<p>Online cross-border trade</p>			
<p>Qualitative</p>	<p>Some opportunity costs offset [+] Measures would improve cross-border trade to some extent, but major challenges would be left unaddressed, hampering cross-border trade and potentially leading national administrations to introduce their own measures</p>	<p>Opportunity costs offset [++] Although it is hard to forecast with prediction the increase in online cross-border trade, the impacts have been proxied by similar trends in offline cross-border trade resulting from market integration. The opportunity costs estimated here are very conservative as the assumed trends were linear and conservative growth rates. The fast change in the platform economy and interlinks with the rest of the economy suggests that online cross-border trade could see an important exponential growth if enhanced by market contestability, fair competition and virtuous patterns of innovation.</p>	<p>Opportunity costs offset [++] Similar to option 2</p>
<p>Quantitative/monetary</p>	<p>No opportunity costs</p>		<p>Similar to option 2, but over a longer timeframe and subject to greater uncertainty</p>

Table 12. Overall score of qualitative impacts per option

Type of impact	Option 1	Option 2	Option 3
Internal market fragmentation	[+]	[++]	[++]
Economic growth	[≈]	[++]	[+]
Compliance costs	[≈]	[-]	[- -]
Innovation	[+]	[++]	[++]
Competition	[≈]	[++]	[+]
Consumer	[+]	[++]	[++]
Online cross-border trade	[+]	[++]	[++]
Overall score²³⁸	4	11	8

Impacts per stakeholder associated with the preferred option

This section builds on the previous estimation of impacts but broken down by stakeholder. The impacts are allocated in Table 13 below to the stakeholders mostly affected, but in reality, impacts affect different stakeholders simultaneously.

Table 13. Distribution of impacts by group of stakeholders

Stakeholder	Impact
Gatekeeping platforms	<p>The most relevant impacts on gatekeepers will be in terms of innovation and competition.</p> <p>Innovation: there should be a reallocation of financial resources from mergers and acquisitions (M&A) to R&D. The current investment in M&A ranges from EUR 20.4 billion to EUR 30 billion per year (EUR 204 billion – EUR 300 billion in 10 years). Gatekeepers are expected to divert these funds from profits and M&A to compete by creating new products and solutions.</p> <p>Competition: it is expected that the platform market would become more open to smaller companies, challenging market dominance and shares of large gatekeepers. Impacts are expected to be observed through two measures:</p>

²³⁸ The qualitative symbols were converted to numbers to ease the final score per option according to ++=2, +=1 and so on.

Stakeholder	Impact
	<ul style="list-style-type: none"> • a reduction in the Herfindahl-Hirschman (HHI) index (a measure of market concentration); and • a more even distribution of profits, cash-flow, users, revenues. <p>The HHI index measured on the share of users and revenues should decrease. The magnitude is quite uncertain as the path could follow a non-linear pattern. Considering the HHI on revenue shares increased on average 0.03 points between 2015 and 2019, the HHI could fall from 0.38 in 2019 to 0.32 by 2029 assuming a linear trend. If the competition forces are strong, the market could tend even closer to 0.25 which is the benchmark for a competitive market. Following the same assumptions, the HHI based on user share could fall from 0.65 in 2019 to 0.45 in 2029.</p> <p>In term of the distribution of financial resources, the top five companies (GAFAM) accumulate 90% of total free cash-flow (USD 90,612 million) that could be distributed among all 22 companies (including GAFAM). It is hard to predict if the distribution would be equal. This effect is a loss for gatekeepers but a win for the potential competitors, as described further below.</p>
<p>Actual or potential competitors to gatekeepers (SMEs)</p>	<p>The preferred option would provide further opportunities to smaller companies to enter the market. The main effects relevant for competitors would be primarily on competition and hence on innovation.</p> <p>Competition: higher competition would result in new market opportunities and revenues/profit which can be invested in R&D/innovation. Moreover, higher revenues could expand the financial frontier and attract venture capital. Thus, the decrease in HHI in terms of user and revenue shares would imply higher market shares or entrance for smaller companies. The patterns of competition would tend to be 'in the market' rather than 'for the market'.</p> <p>Innovation: It is expected that there would be a switch in the patterns of competition. If more funds are available to smaller companies, either own or venture capital, innovation efforts by smaller companies will be encouraged.</p> <p>Financial effect: The distribution of revenues, profits and market share in favour of competitors may attract venture capital, expanding the financial frontier and boosting the growth of these firms. Growth would be tangible via the creation of new products and services; that is, new markets.</p>

Stakeholder	Impact
	<p>Overall, it is likely that the size of the market of the platform economy increases rather than a redistribution from gatekeepers to competitors, even in the case of a more equal distribution of market power.</p>
<p>Consumers</p>	<p>The main impact on consumers is higher consumer surplus. This increase as a result of better products and services as well as lower prices.</p> <p>If companies spend less on advertising, average (total and variable) costs are expected to diminish or result in higher profits. Whether lower costs result in higher profits or lower prices depends on the forces of competition. If we assumed the latter, the increase in the overall consumer surplus could be around EUR 546 per consumer, taking the UK as a proxy. The overall gain could reach EUR 1,803 billion ($£500 * 3.3$ billion users).</p> <p>The most recent estimate from the JRC is about EUR 13 billion per year.</p>
<p>Public authorities (EU, national, local)</p>	<p>The main impacts on public authorities stem from better functioning of the digital single market, online cross-border trade and economic growth. The distribution of the overall effect by country is uncertain at this stage.</p> <p>Internal market: initiatives and legislation at national level would not be necessary anymore. The effect is qualitative but results in economic growth.</p> <p>Economic growth: In 10 years, the potential of the platform economy could be unlocked to generate between EUR 4.37 billion and EUR 17.45 billion. This is based on secondary sources.</p> <p>Input-output modelling: Higher investment in R&D in the ICT sector in EU27 leads to an overall increase in the EU27 income between 0.09% to 0.17% of 2014 EU GDP , this is between EUR 12 million and EUR 23 million. The same leads to an increase in in EU27 between 0.07% to 0.15% of 2014 EU employment.</p> <p>Online cross-border trade: By 2029, the online cross-border trade could reach about EUR 265 billion.</p>

Stakeholder	Impact
	Tax revenues: There is no data on tax revenues, but they should increase as a result of higher business activity.
Regulatory and competition authorities	<p>The impacts on regulatory and competition authorities are mostly compliance costs as below.</p> <p>European Commission: EUR 8.2 million National authorities (EU27): EUR 3.4 million 10 gatekeepers: EUR 8.9 million</p>

i. Conclusions

Digital platforms are expected to become increasingly vital in supporting European service industries and cross-border trade in the years to come. The digitisation of services has been associated with widespread innovation, increased competition and consumer benefits. However, digitisation has also been associated with the ability of certain players to act as gatekeepers, controlling access to the information that end-users see and the services they receive and controlling the functionality, positioning, terms and conditions available to businesses depending on those platforms.

There is widespread and compelling evidence from competition cases, as well as from case studies conducted for this study and feedback from stakeholders, that certain platforms have become essential channels to market, and that platforms which act as gatekeepers can impose unfair conditions on the businesses and application providers which depend on them, as well as engaging in practices which could ultimately exclude potential competitors from the market.

The power wielded by large gatekeeper platforms in turn risks concentrating R&D expenditure and undermining innovation and disruptive entry, as well as limiting the choice and variety of services available to end-users, and potentially increasing prices.

Available evidence suggests that existing measures are insufficient to address these problems, and that Europe would benefit from the introduction of EU-wide legislation which would apply ex ante regulatory obligations on platforms which have the ability to act as gatekeepers.

The preferred option according to the results of the impact assessment is Option 2 (semi-dynamic ex ante regulation). Option 2 is expected to be the most effective in achieving the specific objectives, and is likely to deliver benefits which far exceed the implementation cost. Any unintended costs or other negative impacts that could be associated with this option could be mitigated by opting for a higher threshold (option 2a) which would limit intervention to the largest gatekeeper platforms, while enabling intervention on other platforms where considered necessary following a full analysis by the regulatory authority. Relying on the regulatory authority to specify some of the more general obligations and prohibitions that could be envisaged under option 2, should also limit the risk that these obligations are implemented in a manner which is unduly burdensome or extends beyond the remit of the identified problem.

The European Commission is best-placed to act as the regulatory body in applying and enforcing these measures, supported by a network of experts from national administrations.

Evidence suggests that unlocking the full potential of the platform economy could increase EU27 GDP by between EUR 43.7 and EUR 174.5 billion from 2019 to 2029. Increased R&D resulting from a more diverse pool of innovation could create between 136,387 and 294,236 new jobs. Moreover, if prices reduce inter alia as a result of increased competition and lower commission charges, we estimate, based on projections made by the JRC, that consumers could gain around EUR 13 billion per year.

Annex 2. Analysis of options

a. Defining the threshold

In contrast to the P2B Regulation which applies to all platforms irrespective of market power, the options under consideration for this Impact Assessment would only apply to large online platforms that are deemed to act as “gatekeepers”.

In this section, we consider which criteria and associated indicators may be relevant to identify gatekeepers that should be subject to ex ante regulation.

We firstly review different approaches to the designation process.

We then identify principles which may be relevant to the identification of digital platform gatekeepers with reference to practices under competition law, other relevant EU legislation and national initiatives.

Finally, we consider, on the basis of cluster analysis based on data from 19 companies, which quantitative indicators may serve to identify platforms which meet the “gatekeeper” criteria.

i. Approaches to designation

A review of relevant examples suggests that there are two contrasting approaches that have been taken to identifying specific stakeholders which should be subject to regulation in the context of EU law. One is a static approach – focused on quantitative criteria, while the other is a dynamic (fully flexible) approach, which relies only on principles, which are subject to interpretation by a regulatory authority, and ultimately the courts, in the case of appeal. Another difference in approach concerns whether the analysis is conducted in one step or requires a two step procedure. We discuss each in turn.

Simple quantitative criteria

Quantitative criteria have been used in some contexts to identify companies which should be subject to regulation because they are considered to present strategic or systemic value or have the potential to cause material harm.

One example, which has been used to address imbalances between negotiating parties sets **quantitative thresholds on the basis of relative scale**. This approach is followed in the Food Supply Directive, which judges dependency on the basis of the gap between the annual turnover of the supplier and buyer.²³⁹ Another approach is used in the EU’s Financial Supervision Regulation, which refers to the **quantitative absolute level of assets**, economic importance and the size of cross-border activities.

However, these approaches appear **unsuited to the problem** at hand. A key difference regarding platforms is that firms on both sides of the transaction may be engaged in multiple activities in different sectors, and a threshold that is overly simplistic could risk both failing to capture “large” dependent firms (but which are seeking a digital route to market), and identify as gatekeepers large firms which operate a platform (perhaps within the context of a wider business), but do not wield gatekeeper power in relation to potential users of that platform.

It is also relevant to note that these solutions have been pursued in specific market segments i.e. food and farming, whereas the scope of the DMA may be considerably wider and apply across multiple sectors, some of which may have differing thresholds and drivers for gatekeeper power.

²³⁹ Directive 2019/633 of the European Parliament and of the Council of 17 April 2019 on unfair trading practices in business-to-business relationships in the agricultural and food supply chain, OJ [2019] L111/59, art.1(2).

Analysis based on principles

Another approach to setting the threshold could be a principles-based approach, which involves firstly, the **identification of a “relevant market” and then the identification of one or more platforms within that market which are considered to exercise sufficient control over the market** that they should be subject to regulation. There is already a well-established approach to defining relevant markets (including abundant caselaw) in competition law, which stems from the application of provisions under the Treaty which seek to address “abuse of a dominant position”.²⁴⁰ This two-step approach has also been applied for the application of “ex ante” regulation in the context of the EU Framework for Electronic Communications, and the soon-to-be-applied EU Electronic Communications Code.²⁴¹

Defining a relevant market in line with competition law requires an assessment of demand and short term supply-side substitution, which has traditionally been carried out with the aid of a SSNIP test – whereby consumers’ response to a “small but significant non-transitory increase in price” is viewed as indicating whether they would switch to an alternative service, while in parallel, a similar conception exercise is conducted to assess whether additional suppliers would enter the market if prices increased.²⁴²

However, there have been well-documented challenges in applying the classic concept of the SSNIP test to online platforms because services are often provided (to consumers) for free, while remuneration comes from other sources such as advertisers or third parties selling products or services via the platform.²⁴³ Alternatives to the SSNIP test, including SSNIC,²⁴⁴ SSNIQ²⁴⁵ and A-SSNIP²⁴⁶ have been proposed, but also involve difficulties.²⁴⁷

Moreover, platforms usually operate in two-side markets which raises the question of whether a single relevant market should be defined encompassing all sides of the market, or

²⁴⁰ A dominant position is ‘a position of economic strength enjoyed by an undertaking, which enables it to prevent effective competition being maintained in the relevant market by giving it the power to behave to an appreciable extent independently of its competitors, customers and ultimately of consumers’

²⁴¹ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018L1972&from=EN>

²⁴² Commission Notice on the definition of the relevant market for the purposes of Community competition law, O.J. [1997] C 372/5

²⁴³ The General Court of the EU recognised in *Topps* that: “the SSNIP test may also prove unsuitable (...) where there are free goods or goods the cost of which is not borne by those determining the demand.” There is thus a need to adapt the substitutability logics of the SSNIP test to markets without monetary price

²⁴⁴ Small but Significant and Non-transitory Increase in Costs

²⁴⁵ Small but Significant and Non-Transitory Increase in Quality

²⁴⁶ Attentional-SSNIP

²⁴⁷ Newman (2016:66) proposes Small but Significant and Non-transitory Increase in Costs (SSNIC) test which is analogous to the SSNIP test, but with the costs for users in terms of attention and information, instead of the price. Thus the antitrust authority should assess whether a market-wide five percent increase in the amount (or length, duration, etc.) of advertisements would cause viewers to substitute away to a different attention service. However, the author points to several difficulties in the use of the SSNIC test: (i) the identification of the relevant cost unit: attention, information or a combination of both; (ii) the difficulty for customers in evaluating the costs in terms of attention and information, due, for example, to distorted perceptions of attention costs (and related information costs); and (iii) the heterogeneity of both attention and information costs. In the same vein, the OECD (2013:14) or Gal and Rubinfeld (2016:551) propose to use Small but Significant and Non-Transitory Increase in Quality (SSNIQ) test which examines switching behaviours with reduction of quality, covering both increase in efficiency or decrease in non-monetary costs (such as privacy, exposure to ads ...). In *Qihoo 360 v. Tencent*, the Chinese Supreme People’s Court relied on a variant of this test, the Small but Significant and Non-transitory Decline of Quality (SSNDQ) to define online instant messaging services. Finally, Wu (2019) proposes an Attentional-SSNIP (A-SSNIP), a test that determine how consumers might react to a Small but Significant and Non-Transitory Increase in undesired messages or advertising load for a given product. He explains the test as follows: “if one added a five-second advertising video that played before every usage of Google search, would some number of consumers switch to Bing? Presumably yes, meaning that Google search and Bing are substitutes and competitors. But what if the additional load was added to all search engines—would consumers spend less time on search and spend more time on Facebook or Twitter instead? If not—if consumers continue using search, even at the new, higher attentional price—then this would suggest that search is, in fact, the right market definition and that a hypothetical search engine monopolist is in a position to raise attentional prices.”

whether different markets might be identified.²⁴⁸ In the context of competition law, contrary to the US Supreme Court in *Amex* which identified a single market,²⁴⁹ the EU Courts went for the second option in *Master Card*²⁵⁰ and *Cartes Bancaires*.²⁵¹ Specifically, they **define a market for each side while noting that the relationship between both sides would be taken into account in assessing market power and theories of harm**. This solution has also been supported e.g. in research by Franck and Peitz.²⁵²

Potentially as a result of these challenges, the Furman report investigating the case for ex ante regulation of platforms in the UK avoided relying on existing dominance concepts and instead proposes the identification of a company with “Strategic Market Status”, which may have an “enduring market power over a strategic bottleneck or gateway *market*”.²⁵³

Meanwhile, in its response to the public consultation conducted by the European Commission in the context of ex ante regulation of digital platforms, BEREC suggested the identification of “**Areas of Business**”.²⁵⁴

It is therefore relevant to consider how an approach based on relevant markets, “business areas” or some equivalent term might be used as a first step in a two-step approach of identifying potential gatekeeper platforms, which might be susceptible to ex ante regulation.

One way of avoiding a focus on price, or other similar concepts which may be hard to measure, is to focus on other factors which affect the degree to which users perceive those platforms to be substitutes. This could for example be evidenced for by the similarity of the services provided in terms of their purpose and/or functionality, and the potential for or actual switching and/or multi-homing behaviour, as an indicator of consumers’ or businesses’ perception that the products are substitutable.

In the context of the sale of services and products such as goods, video, music, travel etc, the perception of end-users and business users targeting end-users via digital platforms may be aligned, since business users offering specific products, services or applications would seek to offer those products, services and applications via platforms that are perceived by customers as addressing those segments.

However, in cases where business users are the “purchasers” of services for use as inputs to their own products and service offerings, such as advertising and data, the scope of the business areas in those cases might be different, because advertising on different types of platform might enable access to the same customer-base, or provide access to similar

²⁴⁸ See OECD (2018).

²⁴⁹ *Ohio v. American Express Co.*, 585 U.S. (2018).

²⁵⁰ Case T-11/08 *MasterCard*, para 176-177 : “It is indeed the case that there are certain forms of interaction between the “issuing” and “acquiring” sides, such as the complementary nature of issuing and acquiring services, and the presence of indirect network effects, since the extent of merchants’ acceptance of cards and the number of cards in circulation each affects the other. However, it must be pointed out that despite such complementarity, services provided to cardholders and those provided to merchants can be distinguished, and, moreover, cardholders and merchants exert separate competitive pressure on issuing and acquiring banks respectively.”

²⁵¹ Case C-67/13P *Cartes bancaires*, paras. 78-79: “It is necessary to take into consideration all relevant aspects – having regard, in particular, to the nature of the services at issue, as well as the real conditions of the functioning and structure of the markets – of the economic or legal context in which that coordination takes place, it being immaterial whether or not such an aspect relates to the relevant market. That must be the case, in particular, when that aspect is the taking into account of interactions between the relevant market and a different related market [...] and, all the more so, when, as in the present case, there are interactions between the two facets of a two-sided system.”

²⁵² Franck and Peitz (2019:22-39) support the multi-markets approach because it is more flexible and allows for different substitution possibilities by the user groups on each sides of the platform. Moreover, the scope of the markets on each side may be different as substitutability preferences may not be the same on each side of the market .

²⁵³ Furman review, para. 2.10, 2.25–2.27 and 3.69.

²⁵⁴ https://berec.europa.eu/eng/document_register/subject_matter/berec/others/9411-berec-response-to-the-public-consultation-on-the-digital-services-act-package-and-the-new-competition-tool

data.²⁵⁵ The concept of the SSNIP might be relevant in these specific cases, since a conceptual increase in the price of advertising or data might reveal from which other sources a business could purchase these services.²⁵⁶ For advertising and data, it is possible that Google and Facebook might be seen as substitutes, while consumers might on the other hand identify separate segments for Internet search and social media, due to the different use cases.

Application developers may also have a different concept of business areas from that of end-users when it comes to the value chain, as they may view different points along the value chain (such as mobile or other devices and associated functionality, operating systems, and app stores, the provision of infrastructure and services in the cloud) as distinct opportunities for innovation, while – due to the way in which products have in practice been sold and presented, consumers may perceive such services as being part of the same ecosystem.

An advantage of maintaining an approach which is similar to that of market definition in relation to digital platforms is that the gatekeeping power of companies is likely to be specific to, or to stem from control over a given market / business area. Moreover, because self-preferencing and tying and bundling are significant problems that, as previously explained, may need to be addressed through ex ante legislation, it is necessary to identify the core market which should be isolated from behaviours with aim to leverage power downstream or horizontally. Moreover, other potential obligations that might be imposed such as access to the platform, regulation of terms and conditions, and interoperability should in principle relate to the problem identified which stems from control over functionality, presentation and access in specific markets.

A challenge with this approach is that the process of defining markets or business areas could in itself be a complex process, involving at least some of the questions and uncertainties that current arise in the application of competition law to market definition in the field of digital platforms. For example, there are open questions around the degree to which a possible category of “social media” should be confined to platforms which offer a range of functions in this area such as Facebook, or should also include platforms which provide specific elements of social media functionality such as Twitter or unaffiliated messaging services. The potential for specific or niche services to replace the full service functionality of Facebook from a consumer perspective, would need to be investigated.

Additionally, in the area of “e-commerce” – there is a question as to whether this business area should be treated in a very wide sense (and if so whether it should just include e-commerce platforms offering a wide range of goods and services or should also include specialist platforms), or whether this business area may fragment into segments e.g. for the sale of books, groceries etc.

The views on channels to market of business users may be particularly important in the case of e-commerce, in terms of whether business users perceive the need to be present on a general platform as equivalent to participation in sector-specific platforms. Equally, it would be of interest to understand whether consumers could consider the use of multiple sectorally specific platforms as an appropriate substitute for a platform which offers a wide range of products, or at least – what would constitute the “cost” of replacing general platforms with

²⁵⁵ Newman (2016:110) explains that: “advertisers may view search results and online email services as close substitutes to deliver ads to consumers; they may even view offline venues like billboards as fairly close substitutes for online platforms.”

²⁵⁶ Use of SSNIP may be more challenging in cases where prices are charged on both sides of the market. (and where it is the structure of prices that matters and not the level of price on each individual side). In such cases, it is important that the SSNIP test accounts for the cross-group externalities. If this is not the case, there is a risk that the market will be defined too narrowly as explained in OECD (2018:46). Franck and Peitz (2019:63-64) propose to run the SSNIP test on each of the various prices while maintaining the other prices unchanged and complement this analysis by applying the SSNIP test on each price separately but allowing the other prices to be adjusted optimally.

multiple sectoral platforms, and whether this is sufficiently high that a specific business area for general e-commerce platforms would be found.

Guidance might be needed in order to provide clarity on how the concept of a “business area” or similar test would be applied, and thus which companies would likely be captured.

Overall, an advantage of an approach which involves business areas or concepts similar to relevant antitrust markets, is that it should provide a flexible tool that could evolve alongside the nature of platforms and consumer tastes. A two-step approach may in this context be suited towards dealing with regulation which aims to ensure effective competition (as it is the case of the SMP regime in electronic communications). However, a “relevant market”-based approach may equally be less **suited for a regulatory tool which has additional objectives** such as prohibiting unfair practices in a dependency relationships and promoting market contestability and innovation.

Moreover, it necessitates a step in the process that may be time-consuming and subject to challenge and which does not fit all the objectives of the regulatory framework for large gatekeeper platforms.

Furthermore, an approach which starts with the definition of business areas may be difficult to apply or unnecessary if one of the features which could be associated with platforms with a strong market position is their presence across a number of business areas i.e. conglomeration.

One-step process coupling qualitative and quantitative criteria

An alternative approach might be to set out in the legislation, a number of features which are likely to indicate gatekeeper power. As in the examples provided of food and financial supervision, these features could include indicators that can be quantified as well as structural characteristics that can be easily identified. However, unlike in those approaches quantitative indicators could be coupled with qualitative indicators, which focus on features which are less easy to quantify, or which allow a more in-depth analysis of those cases where not all quantitative criteria are met, but where concerns may nonetheless exist.

This approach would seek to synthesise crucial elements of a market power test adapted to focus on the factors which enable digital platforms to act as gatekeepers, while capturing the benefits of the clarity of thresholds used in the banking and food distribution industry.

By including some key quantitative indicators, such an approach could permit self-identification of the most significant gatekeeper platforms, while requiring **a designation process** for platforms whose status may not be entirely self-evident. If the legislation could be focused on clearly identifiable platform types which are or could be susceptible to problems as identified in the problem analysis (e.g. search, operating systems), it may also be possible to avoid a two-step process, and designate companies and identify in each case which of the digital platforms they operate should be susceptible to ex ante regulation, in a single step.

The development of Guidelines concerning the interaction between the quantitative and qualitative indicators and the interpretation of qualitative indicators may also be needed to provide certainty and predictability on the application of a threshold defined in this way.

ii. Which criteria should be used to designate gatekeeper platforms?

To identify criteria which may enable the identification of gatekeeper platforms which may warrant ex ante regulation, we have examined in more depth factors which may enable platforms to become gatekeepers and permit such gatekeepers to maintain this ability and thwart the potential for disruptive entry, with reference to competition law and examples in other sectors.

The three main criteria we consider are

1. size, geographic reach and significance to the internal market;
2. the ability to act as a gatekeeper (thereby creating dependency and the conditions for unfair trading); and
3. the ability to maintain an enduring gatekeeper position, which may include structural and organisational factors such as control over and the orchestration of an ecosystem that exacerbate these problems and facilitate the defence or the extension of such of gatekeeper power.

In identifying potentially relevant criteria, we have focused on criteria and indicators based on an assessment of **structural characteristics** and market data rather than behavioural characteristics. Evidence of actual harmful practice could be taken as evidence of the ability to act as a gatekeeper. However, it is important in the context of designing an *ex ante* threshold to enable the threshold to continue to be relevant even in cases where the harmful practice do not (yet) exist (but could be exercised), or no longer exists, for example as a result of the effective application of ex ante regulation.

In cases where regulation has been applied, the regulatory authority would need to follow an approach akin to the “**modified greenfield approach**” described in the context of the ex ante regulation of electronic communications,²⁵⁷ whereby authorities examining the potential for a platform to act as a gatekeeper within the meaning of the legislation, do so in a hypothetical scenario in which it is presumed that ex ante regulation to address problems in the market concerned is not present.

Criterion 1: Large scale

In order for a gatekeeper’s potential conduct to have an appreciable effect on the single market, it is presumed that they need to be of sufficient scale to affect outcomes for a substantial portion of business users and consumers, and potentially, to be active in a number of markets. Some possible indicators are discussed below.

Metrics relating to users or time spent

When product is free, it is not possible to calculate monetary transactions market shares and other indicators should be envisaged. In *Google Shopping*, the Commission notes that there are several methods to calculate market shares by volume, including “per number of queries, users, page views or per number of sessions.”²⁵⁸ As explained by Franck and Peitz

²⁵⁷ See WIK (2018) Review of Significant Market Power Guidelines <https://op.europa.eu/en/publication-detail/-/publication/6eebf7b9-4833-11e8-be1d-01aa75ed71a1/language-en> for a discussion of the application of the modified greenfield approach in the context of electronic communications

²⁵⁸ Decision of the Commission of 27 June 2017, Case AT.39 740, *Google Search (Shopping)*, para. 276. The Commission did not discuss the relative informative value of those different parameters as it concluded that the

(2019:71), one indicator often used by antitrust authorities is the **number of unique visitors**, which is the number of contacts by different devices identified by an IP address during a standard period of time, typically a month.²⁵⁹

The **number of users on a platform is also a criterion used by several EU legislative instruments applicable to online platforms, in particular regarding moderation of online content**. For instance, the DSM Copyright Directive imposes additional stay-down obligations for content sharing platforms when the average number of *monthly unique visitors* exceeds 5 million, calculated on the basis of the previous calendar year.²⁶⁰ The proposal for a Regulation on preventing the dissemination of terrorist content online imposes some duty of care on the hosting platforms which are established in the EU or which have *significant number of users* in one or more Member States.²⁶¹ This is also the case at national level. In France, platforms with over 5 million unique visitors per month are subject to enhanced transparency obligations.²⁶² The proposed Algorithmic Accountability Act in the United States foresees a threshold of 1 million consumers.²⁶³

However, the number of users is an indicator which is simplistic and does not carry enough information on the market power in several circumstances. This is the case when viewers multi-home on different platforms but do not allocate their attention equally among them, which is often the case in practice. This is also the case when the usage of a platform is heterogeneous among users.²⁶⁴ In those cases, it is better to consider usage volumes rather than number of users.

To do that, Wu (2019:26) suggests to rely on **Time on Site**. For instance, he indicates that: “a 2017 comScore report suggests that Facebook held roughly 1 000 monthly minutes of the average American’s time, as compared with about 250 for Instagram and Snap, respectively, and less than 200 for Twitter, and 50 for Google+. Relying on these data for hypothetical purposes, and presuming that “online social networking” is an appropriate market definition, if consumers nationwide spent a total of some 2 000 minutes per week on all social networking apps, and overall spent 55 percent of those hours on Facebook and 12.5 % on Instagram, we would have some sense of the structural importance of a transaction like the Facebook-Instagram combination. In this hypothetical, it would leave the combined company with a 67.5 % market share in the presumed social networking market.”

In the same vein, Alexa, an Amazon company, measures the daily time on site which estimates daily time on site per visitor to an Internet website (and is updated daily on the basis on the trailing 3 months). Alexa also collects the *Daily Pageviews per Visitor* which estimates the daily unique pageviews per visitor on a specific site (and is updated daily on the basis on the trailing 3 months). Krämer, Schnurr and Broughton-Micova (2020) notes that

methods indicate that since 2008, Google has enjoyed high market shares in all the relevant general search markets across the EEA, except for the Czech Republic. More specifically, the Commission then referred to market shares calculated based on page views and site visits (id., paras 277–279).

²⁵⁹ Franck and Peitz (2019:71) give the following examples: Decision of the Bundeskartellamt of 22 October 2015, Case B6-57/15, *Parship/Elitepartner*, paras 132–133; Decision of the Bundeskartellamt of 6 February 2019, Case B6- 22/16, *Facebook*, paras 390–413. Also Decision Bundeskartellamt of 8 September 2016, Case B6-126/14, *Google/VG Media*, paras 154–155: Google’s market shares calculated on the basis of search queries are clearly important in regard to Google’s position in the market for search advertising.

²⁶⁰ Directive 2019/790 of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the Digital Single Market and amending Directives 96/9 and 2001/29, OJ [2019] L 130/92, art.17(6).

²⁶¹ Proposal of the Commission of 12 September 2018 for a Regulation of the European Parliament and of the Council on preventing the dissemination of terrorist content online, COM (2018) 640, art.2(3). See also Directive 2010/13 of the European Parliament and of the Council of 10 March 2010 on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the provision of audiovisual media services (Audiovisual Media Services Directive), OJ [2010] L 95/1, as amended by Directive 2018/1808, art.28b(3) which refers to the size of the video-sharing platforms to determine the appropriate content moderation measures that should be adopted.

²⁶² Article D 111-15, French Consumer Code.

²⁶³ Senate Bill S.1108 introduced 10 April 2019 <https://www.congress.gov/bill/116th-congress/senate-bill/1108/text>

²⁶⁴ Franck and Peitz (2019:71) echoing the need to calculate market share in value when products are differentiated.

the distribution of users' attention is going to be highly skewed, following a long tail distribution and that an appropriate concentration measure may rather be more similar to a Gini coefficient than to a Herfindahl index.

The **number of interactions intermediated by the platforms** (and/or the interactions in relation to other platforms performing the same function) may also be a relevant size indicator given that the main role and the main power of the platforms come from their intermediation role. Multi-national coverage.

Cross-border presence

The EU's Financial Supervision Regulation, refers amongst other criteria to the size of cross-border activities. In the context of a threshold applying to gatekeeper platforms, one option might be to specify that **presence in more than a given number of countries** is required to consider a platform as a "gatekeeper" from an EU-perspective or for a gatekeeper's position to be relevant to the single market (and therefore subject to EU-level oversight).

Another option might be to include the principle that the activities of the gatekeeper are relevant to the operation of the internal market. For example, in the context of EU Electronic Communications Code, measures taken by national regulatory authorities must be notified to the European Commission (which has the power to reject certain aspects of the proposed Decision), measures which "**would affect trade between Member States**".²⁶⁵

Indicators of large gatekeeper

Based on the above analysis, potential indicators of a large gatekeeper with EU relevance could include:

- Number of users or unique visitors and/or time spent, number/proportion of interactions intermediated
- Impact on internal market e.g. as indicated by the number of countries in which the platform operates

Although we do not specifically list indicators relating to conglomeration within this criterion, conglomerate platforms are by their nature likely at a company level to involve a large number of users, and/or potentially to retain customers on their platform for long periods of time as they maintain control over the customer experience across a number of services and/or platforms.

Criterion 2: Gatekeeper position creating dependency

In addition to meeting certain size and/or multi-national presence criteria, an undertaking meeting the threshold should also be a "gatekeeper" which controls a bottleneck that results in the dependency of users.

Concept of gatekeepers

²⁶⁵ Article 32 EECC

There is no clear definition of gatekeeper in EU law, although the European institutions have used the term in antitrust²⁶⁶ and regulatory contexts.²⁶⁷ The simplest definition of gatekeeper is an undertaking which determines who can pass through a gate. Lynskey (2017) defines gatekeeper as an undertaking which **controls the flow and accessibility of information and structures the digital environment**.²⁶⁸ With this perspective, she explains that gatekeeper power is distinct from market power in terms of how it is measured, and in terms of its potential impact on the rights and interests of individuals. She also claims that not all harms to individuals are captured by the ex post application of competition rules, or visible from a purely economic perspective.

Leaving aside these broader and societal harms and adopting a narrower economic perspective, a loose definition of a gatekeeper would be that it is an undertaking that can **control access by a group of users to some goods or another group of users**. In this perspective, a digital platform is a gatekeeper if it manages to control access to the customers. This level of control depends on the incentives and ability of those customers to multi-home and to switch and increases with the proportion of single homers. A possible market configuration is to have single homing on one side of the market and multi-homing on the other side. This is what Armstrong (2006) calls a *competitive bottleneck* as the business users need to be on the platform if they want to reach the customers who single home on that platform.²⁶⁹

A competitive bottleneck **may lead to a narrow relevant market definition in competition law** where each platform constitutes a relevant antitrust market on its own. For instance in *Android*, the Commission defines a market for app stores for the Android mobile operating system²⁷⁰ and a US plaintiff in an *Apple* case claims that there is a market for app stores for the iOS mobile operating system.²⁷¹ As explained by Franck and Peitz (2019: 55), such market definition by mobile OS is based on the assumption that consumers are single-homers as they make a discrete choice of either using a device based on Apple's or Android's mobile operating system while app developers tend to be multi-homers. Parallels may be drawn with the definition of the wholesale termination market in telecommunications. In this case, the Commission recommends definition of the market per operator because the called parties single-home (as they do not directly pay the wholesale termination fee in a Calling Party-Pays system) while the operators of the calling party have to multi-home on the different operators.²⁷²

Franck and Peitz also recall that the relationship between the different sides of the market should be taken into account and that the monopoly power on one side of the market (such as the side of app stores for the Android/iOS mobile operating system) may be mitigated

²⁶⁶ For instance in Case M.2876 *NewsCorp/Telepiu*, para.198, the Commission considered the merging parties would have been “the *gatekeeper* of a tool (Videoguard CAS) that may facilitate entry for any alternative pay DTH operator and of an infrastructure (the platform) that may ease the conditions for the broadcasting of pay and free TV satellite channels.”

²⁶⁷ Explanatory Memorandum of the Commission Proposal for a Regulation on promoting fairness and transparency for business users of online intermediation services, COM(2018) 238: “This growing intermediation of transactions through online platforms, combined with strong indirect network effects that can be fueled by data-driven advantages by the online platforms, lead to an increased dependency of businesses on online platforms as quasi *gatekeepers* to markets and consumers.”

²⁶⁸ Lynskey O. (2017). “Regulating ‘Platform Power’,” LSE Law, Society and Economy Working Papers 1/2017, p.9-10. Laidlaw E. (2010) differentiates between two types of gatekeeper: ‘Internet gatekeepers’ who control information flows and ‘Internet information gatekeepers’ which as a result of this function of controlling information flows can have an impact on ‘participation and deliberation in democratic culture’. Helberger et al (2015) argue that much of the concern regarding the influence of gatekeepers lies in their control over access to individuals and the way in which the relationship between gatekeepers and users is shaped. .

²⁶⁹ For more development, see Franck and Peitz (2019:54-57).

²⁷⁰ Commission Decision of 18 July 2018, Case AT.40 099, *Google Android*, paras. 268-322.

²⁷¹ *In re Apple iPhone Antitrust Litigation*, 846 F.3d 313, 315 (9th Cir. 2017).

²⁷² Commission Recommendation 2014/710 of 9 October 2014 on relevant product and service markets within the electronic communications sector susceptible to ex ante, OJ [2014] L 295/79, Annex: markets 1 and 2.

through interaction with the other user group, in particular if large parts of the revenues that are generated on the monopolised side are passed to the users on the other side. The same debate took place several years ago when regulatory authorities were about to regulate the mobile termination tariffs and were warned to take into account the effects of their decisions on the other sides of the market (the so-called waterbed effects).²⁷³

Ex ante regulation also deals with various types of dependency relationships in the digital markets. One example relates to **access to technical services for digital TV which may constitute a key capability for media firms**. Some Commission decisions in competition law have imposed compulsory access to such technical services as a condition to clear pay-TV merger.²⁷⁴ To complement competition law, ex ante rules were adopted in 1995 to force the providers of Conditional Access Systems (CAS) to offer to broadcasters, on a FRAND basis, technical services enabling the broadcasters' digitally-transmitted services to be received by viewers.²⁷⁵ This obligations has been carried forward in the EECC but is now limited to the providers of CAS from which broadcasters depend to reach any group of potential viewers.²⁷⁶

Another example of dependency relates to interoperability. The EECC imposes on providers of number-independent interpersonal communications services, such as Skype, the obligation to **render their services interoperable if those providers reach a significant level of coverage and user up-take**.²⁷⁷

This dependency criterion is also implicit for the designation of **operators subject to must carry obligations**. The EECC provides that Member States may impose reasonable 'must carry' obligations for the transmission of specified radio and television broadcast channels on the providers of electronic communications networks if *a significant number of end-users* of such networks and services use them as their *principal means to receive* radio and television broadcast channels.²⁷⁸

Thus, besides situations where single-homing is enforced on the customer due to their choice in device, it could be inferred that reaching a sufficiently large share of the user-base, could also result in "dependency" on the part of service and application providers which require access to a critical mass of customers for their business case to be effective.

Control of a bottleneck – Low incentives and ability to switch or multi-home

From the economic perspective explained above, a digital platform enjoys a gatekeeper position when its **customers have no or little ability and incentive to switch or multi-home**. As the economic theory has shown and the EU courts have decided, the size of the platforms needs to be **balanced with the ability and the incentive of customers to multi-home**.²⁷⁹ Indeed, if a digital platform counts many customers but most of them multi-home and can be reached across different platforms, the market power of each of the platform is limited. Note that in a data environment, the ability to multi-home among intermediaries

²⁷³ See for instance, Valletti and Houpis (2005).

²⁷⁴ Decision of the Commission of 2 April 2003, Case M.2876 *NewsCorp/Telepiu*, para 225. When those access commitments could not have been obtained, mergers have been prohibited: Decisions of the Commission of 27 May 1998, Case M.993 *Beterlsmann/Krich/Premiere* and Case M.1027 *Deutsche Telekom/BetaResearch*. The merger was prohibited because it would have resulted in BetaDigital and BetaResearch having a dominant position on the German market for the supply of technical services for pay-TV, besides Premiere strengthening its dominance on the pay-TV market and Deutsche Telekom strengthening its dominance on the cable networks.

²⁷⁵ Directive 95/47 of the European Parliament and of the Council of 24 October 1995 on the use of standards for the transmission of television signals OJ [1995] L281/51, art.4(c). This article also reminded that the providers of CAS should comply with EU competition law, in particular if a dominant position appears.

²⁷⁶ EECC, art.62(1) and Annex II, Part I.

²⁷⁷ EECC, art.61(2c).

²⁷⁸ Directive 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code, OJ [2018] L 321/36, art.114(1).

²⁷⁹ Case T-79/12 *Cisco and Messagenet v. Commission*, para.79.

offering the same type of digital services depends to a great extent on the capacity of the customers to move and port their data across digital platforms.

In those situations where multi-homing is difficult, the only credible entry strategy is to focus on niche and differentiated market. In that regard, Franck and Peitz (2019:77) give the example of the platform Etsy for handicraft goods, which displaced eBay for the associated intermediation service because the uniform requirements on the presentation of products across different categories on eBay did not fit well the needs of sellers of handicraft items and Etsy was able to offer a format that was more attractive for both sides. More generally, Tirole observes that in digital markets: “entry usually concerns a niche segment. Recall that Amazon began as online bookstore and Google as a mere search engine. Later, platforms may build a complete product line and expand to compete head to head with dominant platforms.”²⁸⁰

Economic dependency

The control of gatekeeping position leads to **situation of economic dependency** which triggers antitrust intervention in some Member States. The longstanding doctrine of economic dependency under German antitrust law,²⁸¹ which has also been embraced by several Member States²⁸² such as France²⁸³ and, more recently, Belgium,²⁸⁴ aims to prevent digital platforms from exercising unfettered commercial freedom in those situations where business users do not have realistic alternative solutions to connect with their target audience.

Economic dependency may be a relevant concept in determining whether a platform is able to impose unreasonable terms and conditions on its dependent users. However, for the purposes of ensuring that the principle of a platform as gatekeeper can be clearly applied at EU level, it may be preferable to refer to more concrete indicators which may create dependency, such as the share of the potential customer-base to which the gatekeeper controls access, coupled with the potential for and barriers which affect the potential for end-users and business users to switch or multi-home.

Indicators of Gatekeeper position creating dependency

Based on the above analysis, potential indicators of dependency could include:

- Dependency of business users on platform concerned
- Limited potential for multi-home and switching by those business users

²⁸⁰ <https://qz.com/1310266/nobel-winning-economist-jean-tirole-on-how-to-regulate-tech-monopolies/>

²⁸¹ Section 20(1) of the German Act against Restraints of Competition, available at: http://www.gesetze-im-internet.de/englisch_gwb/englisch_gwb.pdf, this section applies “to undertakings and associations of undertakings to the extent that small or medium-sized enterprises as suppliers or purchasers of a certain type of goods or commercial services depend on them in such a way that sufficient and reasonable possibilities of switching to other undertakings do not exist (relative market power). A supplier of a certain type of goods or commercial services is presumed to depend on a purchaser if this supplier regularly grants to this purchaser, in addition to discounts customary in the trade or other remuneration, special benefits which are not granted to similar purchasers”.

²⁸² For a comparative analysis of the legislations in the Member States, see Renda et al. (2012:42-68).

²⁸³ Article L 420-2 of the Commercial Code, available at: http://www.autoritedelaconurrence.fr/doc/code_commerce_gb.pdf. The state of economic dependence requires that that it is impossible for the plaintiff to resort to another undertaking for the supply, or the sale, of a given product or service, due to technical or economic reasons. In essence, four types of economic dependence have been addressed by the French Competition Authority, namely: (i) scarcity-based dependence; (ii) dependence associated with long-lasting business relationships; (iii) assortment-based dependence; and (iv) demand-based buyer power dependence.

²⁸⁴ Economic Law Code, art. I-6 (4) which defines economic dependency as: “the absence of reasonably equivalent alternatives available within a reasonable period of time, on reasonable terms and at reasonable costs, allowing it for each of them to impose services or conditions that could not be obtained under normal market conditions”.

- Limited potential for multi-homing or switching by end-users

Criterion 3: Enduring gatekeeper – Lack of contestability

Finally, in order for ex ante regulation to be warranted, the strong position of a gatekeeper should be enduring, with high barriers to entry and limited scope for potential competition and disruptive innovation.

Concepts of potential competition

Authorities have always recognised the importance of contestability of market power and **potential competition**. Already in the 1997 Market Definition Notice, the Commission observes that: “The third source of competitive constraint, potential competition, is not taken into account when defining markets, since the conditions under which potential competition will actually represent an effective competitive constraint depend on the analysis of specific factors and circumstances related to the conditions of entry. If required, this analysis is only carried out at a subsequent stage, in general once the position of the companies involved in the relevant market has already been ascertained, and when such position gives rise to concerns from a competition point of view.”²⁸⁵

The Commission gives more indications on the criteria to take into account potential competition in the 2004 Horizontal Merger Guidelines by noting that: “For a merger with a potential competitor to have significant anti-competitive effects, two basic conditions must be fulfilled. First, the potential competitor must already exert a significant constraining influence or there must be a significant likelihood that it would grow into an effective competitive force. Evidence that a potential competitor has plans to enter a market in a significant way could help the Commission to reach such a conclusion. Second, there must not be a sufficient number of other potential competitors, which could maintain sufficient competitive pressure after the merger.”²⁸⁶

As digital markets are very dynamic, the analysis should be dynamic as well and therefore, give the same importance to potential competition than to existing competition. However, this may increase the risks of errors (of type I and type II) as it is always difficult to make predictions which is what potential competition is about. To reduce the risks or errors, authorities may undertake two complementary assessment: first, measuring the barriers to entry to the output to assess potential competition on existing areas of business and, second, measuring the barriers to entry to the inputs to assess potential competition on future areas of business.

Entry barriers to existing areas of business

In its Article 102 Guidance Paper, the Commission lists the three main types of entry barriers (legal, economic and strategic). The Commission defines the economic barriers as forms of advantages specifically enjoyed by the dominant undertaking. Then, the Commission gives the following examples: “economies of scale and scope, privileged access to essential inputs or natural resources, important technologies or an established distribution and sales network;

²⁸⁵ Commission Notice on the definition of the relevant market for the purposes of Community competition law, O.J. [1997] C 372/5, para.24.

²⁸⁶ Commission Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings, O.J. [2004] C 31/5, para.60.

other costs and other impediments, for instance resulting from network effects, faced by customers in switching to a new supplier.”²⁸⁷

An important entry barrier may be the presence of **economies of scale and scope**, which can be significant in the digital economy.

Digital markets are also characterised by the presence of important **cross-groups externalities and network effects** between the different sides of the markets as more users on one side the platform tends to lead to more users on the other side and vice-versa. Those network effects are often the most important entry barriers to the digital markets. As Shapiro and Varian (1999:185) have explained “precisely because various users find it so difficult to coordinate to switch to an incompatible technology, control over a large installed base of users can be the greatest asset (a platform) can have”.

This was already the case in traditional media or communications markets, but the development of **big data and AI have amplified those network effects**. The collection and use of customers’ data exhibit important (users and monetisation) feedback loops which can entrench the market power of a digital platform.²⁸⁸ Moreover, data-driven network effects may encourage the expansion of dominant intermediary from their core markets to other (data-related) markets and diffuse their market power through the economy.²⁸⁹

Another more specific possible entry barrier to digital markets is linked to the so-called “**zero price effect**”.²⁹⁰ Several studies in behavioural economics show that consumers treat a price at zero very differently than any other price; they appear to act as if zero pricing of a product not only decreases its cost but also adds to its value.²⁹¹ This is well understood by the General Court in *Cisco and Messagenet*, which notes that: “In so far as users expect to receive consumer communications services free of charge, the potential for the new entity to set its pricing policy freely is significantly restricted. The Commission rightly observes that any attempt to make users pay would run the risk of reducing the attractiveness of those services and of encouraging users to switch to other providers continuing to offer their services free of charge. Likewise, if the new entity decided to stop innovating in terms of its communications services, it would also run the risk of reducing their attractiveness given the level of innovation on the market in question.”²⁹² Thus with free products, entry strategies are more limited. They may focus on product and quality differentiation but not on price differentiation.

Finally and more generally, **barriers to entry tend to increase with the development and the maturation of a market**. Franck and Peitz (2019:77) observe that entry barriers are lower in quickly growing markets in which many unattached users arrive and in markets with fast technological changes. Thus, it is not because a digital platform has displaced a previous incumbent when the market was nascent that this platform can easily be displaced when the market has matured. For instance, the fact that Friendster has been replaced by Myspace which, in turn, was replaced by Facebook - or that AltaVista has been displaced by Google - several years ago does not mean that Facebook or Google can easily be displaced today.

²⁸⁷ Guidance of 3 December 2008 on the Commission's Enforcement Priorities in Applying Articles [102 TFUE] to Abusive Exclusionary Conduct by Dominant Undertakings, para.17.

²⁸⁸ Lerner (2014).

²⁸⁹ Bourreau and de Streel (2019).

²⁹⁰ The zero price effect has also implications on market definition and, when not taken into account, may lead to a new fallacy similar to the old Cellophane fallacy. As Newman (2016:75) explains: “where two products are offered at zero prices, the fact that customers would switch away from one product and toward the other in the event of a price increase does not necessarily indicate that the two belong in the same product market. Such switching likely reflects nothing more than the zero price effect in action.”

²⁹¹ Shampanier et al. (2007). Some other behavioural studies on the zero price effect are summarised in Gal and Rubinfeld (2016: 528-530).

²⁹² Case T-79/12 *Cisco and Messagenet v. Commission*, para.73.

Entry barriers to input markets: the innovation capabilities

The determination of the output entry barriers to assess potential competition on existing areas of business should be complemented with a determination of the input entry barriers (innovation capabilities) to assess potential competition on future areas of business. This complementary analysis reduces the risks of errors of the market power determination because, as put by Teece (2009), “when innovation is high, capabilities are more stable than products.”

Yet, this complementary analysis is challenging because the types of innovation capabilities and their role in product innovation are complex and uncertain, in particular in industries where the innovative process is not clearly structured. However, Teece (2009:255) also observes that: “the tools for assessing capabilities may not be well developed yet, but they are developed enough to allow tentative application. Clearly, product market analysis can be unhelpful and misleading in dynamic contexts. Using the right concepts imperfectly is better than a precise application of the wrong ones.”

In this regard, the antitrust authorities have already developed several concepts to go up the innovation value chain and identify the state of competition at the input level.²⁹³ For instance, the European Commission has relied on the following concepts:

- First, competition in innovation refers to R&D poles which may compete with each other depending on the “the nature, scope and size of any other R&D efforts, their access to financial and human resources, know-how/patents, or other specialised assets as well as their timing and their capability to exploit possible results.”²⁹⁴ Cautiously, the Commission notes that R&D poles may be identified when the process of innovation is well structured, like in the pharmaceutical industry, but that the concept will normally not be used when the process of innovation is not clearly structured;
- Second, innovation space is “not a market on its own, but an input activity for both the upstream technology markets and the downstream products markets”,²⁹⁵ and corresponds to the discovery targets over which firms compete.²⁹⁶

Thus, when assessing potential competition between digital platforms, the authorities should analyse which platforms control the innovation capabilities and what the entry barriers to innovation markets and spaces are. This approach may be more difficult to apply in the digital sector than in the pharmaceutical sector because the innovation process is less structured and shorter in the former than in the later. However, it is not impossible²⁹⁷ and innovation markets may be defined for the main capabilities of the digital sector such as data, some type of engineering skills, high computing power and very risky capital.

²⁹³ See Federico, Scott Morton, and Shapiro (2019) and Petit (2019).

²⁹⁴ Commission Guidelines of 14 December 2010 on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements, O.J. [2010] C 11/1, para 119-122 and Communication Guidelines of 21 March 2014 on the application of Article 101 of the Treaty on the Functioning of the European Union to technology transfer agreements O.J. [2014] C 89/3, para 26. The Commission has also developed the concept of *technology market* which consists of “the licensed technology rights and its substitutes, that is to say, other technologies which are regarded by the licensees as interchangeable with or substitutable for the licensed technology rights, by reason of the technologies’ characteristics, their royalties and their intended use.”: Commission Guidelines on horizontal co-operation agreements, paras 116-118 and Communication Guidelines on technology transfer agreements, para 22.

²⁹⁵ Commission Decision of 27 March 2017, Case M. 7932 *Dow/DuPont*, para. 348.

²⁹⁶ para.2168. The R&D undertaken in innovation spaces “generate[s] early pipeline products.” Para.2159.

²⁹⁷ Also Kerber and Kern (2014).

Control over an ecosystem

A conglomerate footprint or control of an ecosystem can also be an important factor which increases the harm caused by a gatekeeper platform and its enduring nature, as it allows defensive leveraging to protect existing gatekeeper position or offensive leveraging to extend gatekeeper position.

Teece (2012) defines an ecosystem as “a group of interacting firms that depend on each other’s activities reliant on the technological leadership of one or two firms that provide a platform around which other system members, providing inputs and complementary goods, align their investments and strategies”.²⁹⁸ Jacobides et al (2018) define ecosystems as “groups of firms that must deal with either unique or super modular complementarities that are non-generic, requiring the creation of a specific structure of relationships and alignment to create value.”²⁹⁹ Ecosystems often include a core (digital) platform orchestrator and a select group of their complementors – for example, app developers, network operators and device manufacturers.

A draft law to amend the Greek competition law defines an ecosystem as “a) the web of interconnected and to a large degree interdependent economic activities carried out by different undertakings with the intention of supplying one or more products or services which impact the same set of users, or b) the platform of economic activities which are supplied by different undertakings with the intention of supplying one or more products or services which impact the same set of users or different categories of users.”

The explanatory Memorandum of the draft explains that:

- The undertakings which form an ecosystem and undergo such economic activities are usually independently owned, but are financially and technologically interconnected due to:
 - the highly complementary relationship of the resources (technological, financial and human) for carrying out the specific activities, and
 - the existence of a unitary, from a financial perspective, competitive offer to the user, group of users or different categories of users, which are connected due to the relationship of positive or negative feedback loops which exist between the various users or various categories of users with regards to the specific economic activity and
 - eventually, the significant sunk costs which must be made in this complementary relationship, which may, among other factors, lock the users in this particular choice. Complementors who participate in the ecosystem would be materially worse off if they were to choose *not* to participate in the ecosystem if the latter depends on the development of a key technological platform, which constitutes a central point for the harvesting of data, provision of specific economic activities and eventually source of incentives for the coordination of the ecosystem.

In practice, two key characteristics, often present in the digital economy, may lead to conglomerate presence:

²⁹⁸ Teece, D. 2012 “Next-Generation Competition: New Concepts for Understanding How Innovation Shapes Competition and Policy in the Digital Economy”, *Journal of Law & Policy*, (9): 105-106

²⁹⁹ Jacobides, M.G., Cennamo C., Gawer A. 2018. Towards a theory of ecosystems. *Strategic Management Journal* 39(8): 2255–2276

- First, digital products and services involve a modular design, which generates strong economies of scope in product development, and allows firms to create variants from basic products for relatively low development costs.
- Second, the joint consumption of digital products from the same product ecosystem may generate consumption synergies for consumers. Firms thus have an incentive to expand to create product ecosystems and generate consumption synergies, which they can then capture through higher prices.

It should be noted that conglomeration play a somewhat different role from the other sub-criteria, in that it refers to a strategy or structure of the platform which can be used to sustain a market position. Thus, a conglomerate platform might be able to sustain a strong position even in the absence of other factors which might imply high entry barriers. Equally, a platform may be able to sustain a strong position in a particular segment even in the absence of a conglomerate presence, if the platform services in which it operates benefit from other factors which raise entry barriers such as scale economies or network effects.

Indicators for enduring gatekeeper

Indicators which may be associated with the ability to create an enduring position as a gatekeeper platform include:

- High barriers to entry on existing products markets, in particular
 - Economies of scale and scope
 - Direct and indirect network effects
- Feedback loops, in particular in data use
- Control and barriers to entry to innovation capabilities, in particular
 - data,
 - risky and patient capital,
 - key platforms for innovation, such as computing infrastructures,
 - specialised digital skills and labour

A platform may also be able to sustain its position through an ability to control an ecosystem, as may be indicated through:

- Presence in multiple (related) business areas,
- Control of a web of interconnected and to a large degree interdependent economic activities carried out by different undertakings with the intention of supplying one or more products or services which impact the same set of users.
- Modular design innovation
- Consumer synergies within ecosystems

Proposed options for thresholds for gatekeeper platforms at national level

At the national level, several recent reports and policy initiatives have proposed to define a specific threshold that would trigger additional antitrust oversight and/or some form of ex ante regulation in the digital sector.

In the **UK**, the Furman Report (2019, p.10 and 55) proposes the threshold of *significant market status*, defined as enduring market power enjoyed by a firm over strategic bottleneck

market or a position to exercise market power over a gateway/bottleneck and control others' market access.

In **Germany**, the bill for the 10th amendment to the Act against Restraints of Competition³⁰⁰ proposes to introduce the threshold of *paramount significance* determined on the basis of five criteria:

- its dominant position on one or more markets,
- its financial strength or its access to other resources,
- its vertical integration and its activities on otherwise related markets,
- its access to data relevant for competition,
- the importance of its activities for third parties' access to supply and sales markets and its related influence on third parties' business activities³⁰¹.

It should be noted however, that the German Act would introduce a tool to address certain problems under competition law, rather than (as proposed in the DMA) introducing ex ante regulation with the aim of addressing unfair terms and conditions, as well as facilitating choice and innovation.

In **France**, the Autorité de la Concurrence proposes to introduce the threshold of *structuring digital platforms* defined as:

- a company that provides online intermediation services for exchanging, buying or selling goods, content or services,
- which holds structuring market power because of its size, financial capacity, user community and/or the data that it holds,
- enabling it to control access to or significantly affect the functioning of the market(s) in which it operates) with regard to its competitors, users and/or third-party companies that depend on access to the services it offers for their own economic activity.³⁰²

The French telecommunications regulator ARCEP proposes the threshold of *systemic digital platforms*, defined on the basis of three main criteria:

- the existence of bottleneck power,
- a certain number of users in the EU - or as a proxy, sufficiently high EU turnover
- and the existing of integration of that firm into an ecosystem enabling leverage effects)

...which are complemented by four secondary criteria:

- gatekeeper position,
- access to many high-quality data

³⁰⁰ GWB-Digitalisierungsgesetz, government bill of 9 September 2020 www.bmwi.de/Redaktion/DE/Downloads/Gesetz/gesetzentwurf-gwb-digitalisierungsgesetz.pdf?__blob=publicationFile&v=6. On 30 November 2020, the bill was before the Bundestag's Committee on Economic Affairs and Energy.

³⁰¹ As said above, this notion of intermediary power would also be introduced as part of the standard dominance concept under Section 18(3b) GWB.

³⁰² Autorité de la concurrence's contribution of 19 February 2020 to the debate on competition policy and digital challenges available at: https://www.autoritedelaconcurrence.fr/sites/default/files/2020-03/2020.03.02_contribution_adlc_enjeux_numeriques_vf_en_0.pdf

- market shares for online advertising
- and the market value of the platform).³⁰³

As shown in Table 14, the criteria proposed by those different policy initiatives could be grouped into the three ‘families’ of indicators we have proposed above:

Table 14. Possible criteria to define Large Gatekeeper Platforms

	<i>Furman (March 2019)</i>	<i>German 10th Amendment (Nov 2020)</i>	<i>French NCA (Feb 2020)</i>	<i>French NRA (Dec 2019)</i>
Test	Significant Market Status	Paramount significance	Systemic	Systemic
Large platform				<ul style="list-style-type: none"> - Many users (or turnover) - User attention
Gatekeeper	<i>Control of bottleneck</i>	<ul style="list-style-type: none"> - Dominance on one or more markets - Importance of its activities for third parties' access to supply and sales markets and related influence on third parties' business activities 	<ul style="list-style-type: none"> - Provide intermediation services - Control access to market - Dependency Users/suppliers 	<ul style="list-style-type: none"> - Bottleneck - Gatekeeper
Enduring gatekeeper – lack of contestability	<i>Enduring market power</i>	<ul style="list-style-type: none"> - Financial strength and access to resources - Access to data relevant for competition - Vertical integration and activities on otherwise related markets 	<ul style="list-style-type: none"> - Structural market power because of Size, financial capacity, user's community 	<ul style="list-style-type: none"> - Access to data - Market value - Part of ecosystem

³⁰³ ARCEP, *Systemic digital platforms*, December 2019.

Summary of potential criteria for gatekeeper position

Based on our analysis of the drivers of problems identified in the study, alongside legal and economic literature and practices at a national level, we propose the following three criteria and indicators to identify platforms with a “large gatekeeper position”.

Criterion	Our proposed indicators
Large platform with EU significance	<ul style="list-style-type: none"> - Significant number of unique visitors and /or time on site and / or interactions intermediated by the platforms - Operations impact the internal market e.g. with reference to countries addressed or scale of business
Gatekeeper giving rise to dependency	<ul style="list-style-type: none"> - Dependency of business users from the platforms and limited potential for multi-homing and switching - Limited potential for multi-homing or switching by end-users
Enduring gatekeeper position	<p>High barriers to entry on existing areas of business, in particular</p> <ul style="list-style-type: none"> - Economies of scale and scope - Direct and indirect network effects - Feedback loops, in particular in data use - Zero price effects <p>High barriers to entry on future areas of business: Control and barriers to entry to innovation capabilities, in particular</p> <ul style="list-style-type: none"> - data, - risky and patient capital, <p>key platform elements such as computing infrastructures</p> <p>Control of an ecosystem</p> <ul style="list-style-type: none"> - Presence in multiple (related) business areas - Control of ecosystems with core digital platform orchestrator - Modular design innovation - Consumer synergies within ecosystems

Size and impact on the internal market provide an indication of the degree of importance of the platform to the EU economy and society.

The core features which give a platform bottleneck power are highlighted under the second group of criteria. These factors tend to enable a platform to dictate the terms under which business users or developed can gain access to its customer-base.

The third group of criteria are important in identifying whether a gatekeeper platform has control over assets or operates in a segment with characteristics such as network effects that would enable it to perpetuate its position and impede others from entering and expanding.

This group of criteria could also reflect structural characteristics such as conglomeration and/or presence in multiple related markets which could signal the degree to which the platform can maintain and leverage its position into other segments.

It is suggested that all 3 high level criteria should be met in order to conclude that a platform has gatekeeper status. However, the subcriteria described under each criterion are more indicative in nature and may not be cumulative.

For example, conglomeration may be reflected in metrics relating to size (criterion 1), as well as the ability to sustain a gatekeeper position (criterion 3), but is not a necessary condition for the identification of a gatekeeper platform if other subcriteria are met. A large scale platform which benefits from switching or multi-homing barriers, as well as high barriers to entry on existing and future areas of business could be designated as a gatekeeper platform under this concept, even if it does not benefit from control over an ecosystem.

iii. Mapping criteria to indicators for gatekeeping power

In this section, we aim to identify relevant quantitative and structural indicators that could be used to assess whether certain platforms may have gatekeeper power that warrants ex ante intervention, based on the 3 high level criteria identified in the previous section.

We then assess what application of these quantitative and structural indicators might mean in theory for the potential identification of gatekeeper power in sample business areas.

Scope of indicators

Indicators are conceptual constructs that reflect relevant aspects of the underlying phenomenon of interest, "...derived from or informed by applicable theory..."³⁰⁴. Therefore, indicators are not necessarily represented by data or numbers, but rather by characteristics that, in some cases, can be captured by suitable proxies and "...operationalized with data"³⁰⁵. Therefore, a suitable set of indicators consists of quantitative and qualitative criteria that have to be evaluated in combination to determine the gatekeeper status of individual platforms.

As noted in the Platform Observatory progress report on measurement and economic indicators,³⁰⁶ data availability, reliability and consistency can be major constraints to the operationalization of suitable proxies.

³⁰⁴https://platformobservatory.eu/app/uploads/2020/07/ProgressReport_Workstream_on_Measurement_and_Economic_Indicators_2020.pdf (p.5)

³⁰⁵https://platformobservatory.eu/app/uploads/2020/07/ProgressReport_Workstream_on_Measurement_and_Economic_Indicators_2020.pdf (p.5)

³⁰⁶ <https://ec.europa.eu/digital-single-market/en/news/commission-expert-group-publishes-progress-reports-online-platform-economy>

First, not all proxies that have been proposed to potentially operationalize conceptually relevant criteria of digital platforms are regularly reported by digital platform providers themselves.

Second, despite the fact that several third-parties are tracking some of these proxy candidates, such as time spent on a service, number of monthly active users or traffic, the scope and reliability of this data is still limited. Specialized companies such as Similarweb exist, but the methods applied by these services and the raw data collected is proprietary and can change any time. Moreover, data from different analytical websites may not be comparable as these companies adapt their calculation methods to provide richer and more accurate insights.

Third, many large digital ecosystems are closed systems that allow third-parties to track only very limited data from the outside. Examples include operating systems, software marketplaces (AppStore, PlayStore) and business applications (Office365, Slack).

In summary, indicators need a

- Conceptual foundation and theoretical grounding for interpretation
- Quantitative or qualitative approach for operationalization
- Available, reliable and consistent data for operationalization

The availability and consistency of data constrain the indicators that can be used at present to analyse the platform economy. Provision of data on a consistent basis could however be a condition applied under a potential ex ante regulatory system.

Conceptualization and operationalization of indicators

We started the indicator development process by relying on the broad criteria that were identified as potentially indicating gatekeeper power (see Table 14).

Based on the initial list of high-level concepts and criteria, we identified potential quantitative indicators that could be used as proxies. To that end we screened different academic literature (e.g. anti-trust) to identify existing indicators and checked public data sources and those supplied by private data-providers (e.g. Alexa, Statista), to check the general data availability for different indicators.

Based on our initial high-level assessment we considered the following quantitative indicators in our further data collection efforts:

- Platform size & volume
- Total revenues
- Net profits
- Equity
- Market capitalization
- Number of employees
- Economic dependency
- Third-party turnover realized on platform
- Number of business users
- Search traffic
- Control over bottleneck

- Market share in core business area
- Control over data
- Number of users
- Number of business areas
- Usage intensity / Engagement
- Control over innovation
- R&D Investments
- No. Patents
- Number of acquisitions
- Investment in Plant, Property, and Equipment
- Free Cash Flow
- Equity
- Market capitalization
- Conglomerate Ecosystem
- Number of business areas
- Market shares in business areas
- Aggregated market shares over all business areas

The list of indicators presented above is the final list of quantitative indicators that has been considered in the process of collecting our own data and in close cooperation with our primary data provider (Statista).

Comparability of indicators

The digital economy includes players that provide a multitude of different services. Ensuring comparability between indicators that capture the characteristics of different companies, business areas and platforms is a non-trivial problem. For our initial assessment of data availability, we categorized digital services and platforms that differ in their scope, business model and orientation along the following dimensions:

Revenue model

Revenue models describe the way digital service providers earn money. Many services that are offered via the Internet are free for consumers and financed by placing advertisements. Other services are offered for a fee (e.g. subscription) that must be paid weekly, monthly or annually. In both cases the revenues of service providers increase with size of the audience. However, advertisements are priced according to the number of impressions, clicks and conversions. Therefore, the time a consumer spends on the service and the overall activity on the platform are more relevant than for subscription services.

Multi-Sidedness

Not all services provided by digital platform providers are inherently multi-sided in nature. Services like Netflix or Spotify provide services which have become important distribution channels for music artists and labels, as well as for the film industry. However, despite their relevance with respect to daily online activities of consumers, these services are distinct from

online intermediation services and online search engines. The multi-sidedness of digital services introduces difficulties for the economic analysis of indicators, since efficient prices can be asymmetric: In multi-sided markets prices that subsidize one side of the market (e.g. free service for consumers) and impose fees to the other side of the market (e.g. developers) can be efficient.³⁰⁷

Business areas

Larger digital platform providers such as Apple, Amazon, Facebook, Google and Microsoft provide a wide variety of different services that span across different business areas. This implies that there may not be a unified user base for all services provided by the company. For instance, not all customers that have an Amazon account are also Prime members and not all customers with an iPhone are using the company's music streaming service Apple Music or download applications via Apple's AppStore for a fee. Furthermore, due to the large variety of services these companies are in direct competition with other digital service providers in different business areas. In the following analysis we will use the concept of "business areas" (or core platform services) to distinguish several market segments from each other that are relevant to assess the gatekeeping power of digital platform providers.

Indicator development

Specific indicators we examined included the following. It should be noted that some indicators may be relevant to more than one criterion listed in Table 14.

Platform size and volume

Total revenues

Total revenues concern all income generated by a company. Ideally one would measure the value add of a platform. However, this information is difficult to come by and difficult to estimate, and thus total revenue was used as the second best indicator.

Net profit

Net profit describes the operational profit (total revenues – total costs) minus the tax paid to the government and interest paid for loans. It should be noted that in their initial period of operation, platforms do not focus on profit but rather on building a user base and critical market share. However, once this is established, one can observe that profits tend to increase.

Equity

The equity of a company consists in the original nominal value of the share at the moment of issuance multiplied by the number of outstanding shares. On the company's balance sheet this is the difference between all debt and credit lines.

Market capitalization

The market capitalization is the market price of the company's share multiplied by the number of shares outstanding. It represents the valuation of stakeholders at a certain point in time. When the value of a company increases in time, the market capitalisation will be higher than the equity value. This factor is an indication of how successful the company is (and therefore desired) amongst stakeholders.

Number of employees

Number of employees indicates the (possible) size of a company. Furthermore, revenues might not always be meaningful in markets where (part of the) services are provided for free.

³⁰⁷ Rochet, J. C., & Tirole, J. (2006). Two-sided markets: a progress report. *The RAND journal of economics*, 37(3), 645-667.

Moreover, the number of employees indicates the available resources of a company to scale operations.

Economic Dependency

Relevant indicators in the context of dependency are hard to capture quantitatively.

A large volume of developers, hotels, merchants and SMEs depend on the intermediation services of platforms. Thus, relevant criteria could be the “**volume of third-party transactions**” that are mediated via the platform operator and the “**number of sellers/suppliers**” that are registered or actively using the platform to conduct their business. Another measure of dependency (for certain types of platform) is “**traffic originating from search**”

However, data indicating the dependency of these businesses on platform providers is difficult to obtain and difficult to compare across different services, platforms and business areas.

First, platforms are inherently proprietary systems that do not provide public data about all their business operations, which creates obstacles in the process of benchmarking them on the company level with competing single-purpose providers.

Secondly, most large gatekeeper platforms do not provide e.g. separate financial information for all business areas (e.g. Apple “Other” product category in financial reports).

The concept of “**multihoming**”, “**switching**” or “**lock-in**” is conceptually relevant for all digital services and platforms. However, data availability for these measures is also generally low and proxies often rely on survey data from consumer panels and are not available for all business areas or companies/services.

Gatekeeper - Control over bottleneck

A **high proportion of customers or interactions** in the core business area of a large gatekeeper platform indicate that the platform provider is in control of a strategic bottleneck that can be the core of a digital platform ecosystem. Whereas for a single-purpose platform, the focus may lie on a single core market, the core business area of a large gatekeeper platform with aspirations to develop an ecosystem, provides a foothold in one layer in the Internet value chain. Used as a strategic bottleneck, the platform provider can venture into other adjoining business areas.

Control over data

Control over data can enable a large gatekeeper platform to sustain its market position (or in combination with an ecosystem strategy) to leverage into other markets. The operationalisation of data-driven network effects or data-power in general requires information on two components:

Data breadth can best be measured by the overall “**installed base / global active users**” of the company. However, if available, data of “**monthly active users**” can be more revealing, as it captures the constant stream of data into the realm of large gatekeeping platforms, allowing to continuously monitoring trends in user activity.

Data depth is harder to operationalize, since it can be influenced by several factors. First, “**usage intensity**” in the core business area of a platform leads to richer information about individual users (e.g. measured by “**Daily page views per visitor**”) or engagement (e.g. measured by the “**Alexa Rank**”)

However, the “**number of business areas**” a platform provider itself is active in, is also an important factor to consider, since this allows a company to collect data about users in different contexts. Hence, the reach of the data collection by large gatekeeping platforms in the overall Internet ecosystem e.g. by the means of ancillary services can be an important factor too.

Control over innovation

We examined a number of indicators that could signal a platform’s innovation potential, and in some circumstances (especially regarding financial aspects and acquisition practices), its potential to have control over the means of innovation.

R&D Investments

The innovation power of a company is driven by its research and development (R&D), either derived from internal R&D, which might result in increasing number of patents or externally, when promising companies and technologies are bought via acquisitions.

No. Patents

The control over innovation of a company is also driven by its portfolio of intellectual property. Patents can also be acquired instead of originating from internal R&D efforts.

Number of acquisitions

Acquiring small promising companies which develop technologies and/or services can be an acquisition strategy. Acquisitions allow large gatekeeper platforms to absorb innovation into their own ecosystem by vertically integrating new services (e.g. Apple/Beats), acquiring additional know-how (aquire) and preventing future competition by potentially successful start-ups (kill-zone). Therefore, the number of acquisitions may also be associated with building up ‘conglomerate effects’ and the ability to leverage power horizontally.

Investment in Plant, Property, and Equipment

Investment in Plant, Property, and Equipment of a service or platform provider illustrates its business plans and can create barriers to entry for competing platforms and be an indicator for higher data collection and processing capabilities.

Free Cash Flow

Free cash flow is derived when deducting the required investments from the net profit. Therefore, this is the amount of liquidity a company has available either to reduce its loans, pay its stakeholder dividend or invest in new business areas or acquire innovative start-ups.

Equity

The equity of a company equals the original nominal value of the share at the moment of issuance multiplied by the number of outstanding shares. On the company’s balance sheet this is the difference between all debt and credit lines.

Market capitalization

The market capitalization is the market price of the company’s share multiplied by the number of shares outstanding. It represents the valuation of stakeholders at a certain point in time. When the value of a company increases in time, the market capitalisation will be higher than the equity value. This factor is an indication of how successful the company is (and therefore desired) amongst stakeholders

Conglomerate Ecosystem

Finally, we looked at the following characteristics as possible metrics indicating that a platform can be considered to be a conglomerate ecosystem.

Number of business areas

Our analysis covers several business areas that have been identified by inspecting the

revenue models and competitors of large platform providers. The different business areas, their development in the European Union and our forecast of the development of the status-quo without further intervention can be found in the following sections.

Significant presence in multiple business areas

Having a significant presence in different areas of business are of particular interest as the control of different layers of the Internet value chain creates dependencies between services and allows large gatekeeper platforms to optimize their overall business activity across to whole ecosystem. Control over several business areas can therefore intensify the gatekeeping power and create combinations of bottlenecks that present even stronger barriers to entry for competitors and allow the platform provider to gather more data and exert more control about users.

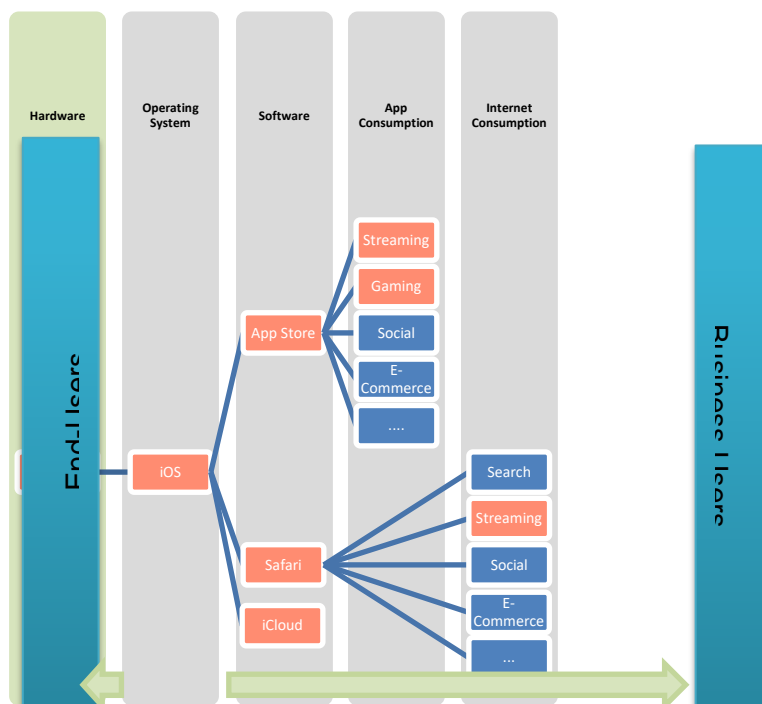
Attributing “core platform services” to conglomerate platforms

In order to compare like with like, and to allow assessment of metrics such as market share, which may relate to specific platform types, we started by breaking down the activities of leading platforms engaged in multiple business areas to identify which platform services constitute part of their “core” business, for the purposes of the analysis. Examples of this analysis for Apple and Google are shown below.

Apple

Apple provides a seamlessly integrated combination of hardware, software and services. The company is well-known to exert tight control over different layers of the value chain and is active in several of the analysed business areas. However, at its heart Apple is a mobile devices company that worked its way towards other layers of the value chain. By controlling the user interface, the physical devices and the software running on these devices, the company is well positioned to be able to control and potentially leverage into interdependent layers of the value chain.

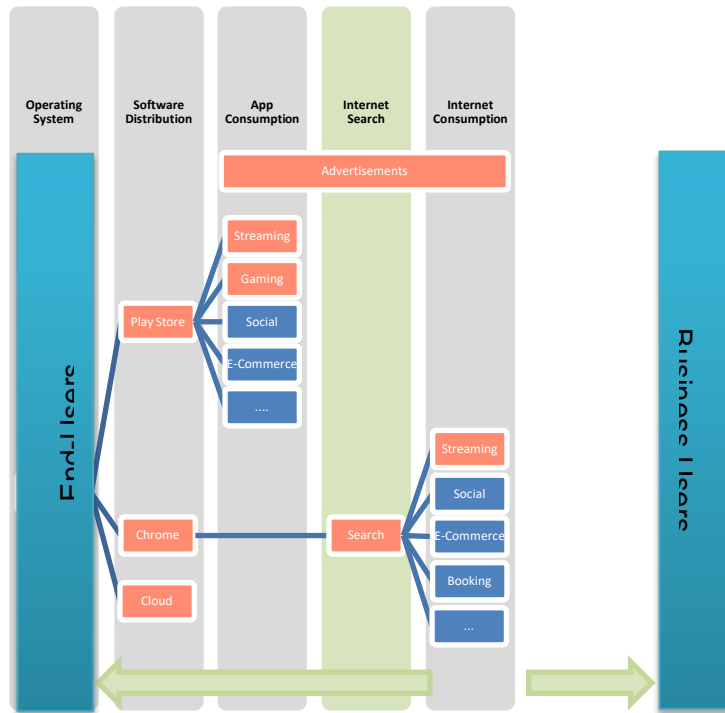
Figure 14. Apple ecosystem– Bottleneck analysis



Google

Google's core business is deeply rooted in online search and in contrast to Apple the largest share of Google's revenues stem from advertisements. Google is one of the largest providers of search, video and display advertisements in the EU. However, Google also provides the Internet browser with the highest market share in the EU and the mobile operating system (Android) with the largest installed-base in the EU. Furthermore, Google leverages an enormous array of ancillary services to collect additional data about users in the Internet (e.g. Google Analytics).

Figure 15. Google ecosystem– Bottleneck analysis



Relevance of indicators in identifying a gatekeepers

In order to assess which quantitative indicators might help in distinguishing gatekeeper platforms from those not exhibiting the potential for gatekeeper control, we sourced data for 19 companies which are active in a total number of 19 sectors and sector trend data that capture the core indicators of the respective sectors (e.g. revenue shares, ranking of competitors). Table 15 shows the considered companies, the sector in which they are active and the name of the corresponding platform.

Table 15. Company name, sector and platform/device observed for analysis

Company	Sector	Platform/Device
Alphabet	App Store	Google Play Store
	OS Mobile	Android
	Search	Google Search
	Browser	Chrome

Company	Sector	Platform/Device
	Office	G Suite
	Display advertising	Google Display Advertising
	Video advertising	YouTube Video Advertising
	Search advertising	Google Search Advertising
	Cloud	Google Cloud
	Digital Gaming	Google Stadia
Apple	Smartphones	iPhone
	App Store	Apple App Store
	OS Mobile	iOS
	OS Desktop	OS X
	Browser	Safari
	Video	Apple TV
	Audio	Apple Music
	eCommerce	Apple eCommerce
Facebook	Social	Facebook Social Network
		Instagram Social Network
	Social media advertising	Facebook Social Media Advertising
		Instagram Social Media Advertising
Amazon	Video	Amazon Prime Video
	Audio	Amazon Music
	Display advertising	Amazon Display Advertising
	Video advertising	Twitch Video Advertising
	Search advertising	Amazon Search Advertising
	eCommerce	Amazon eCommerce
	Cloud	AWS
Microsoft	OS Desktop	Windows
	Search	Bing Search
	Browser	Edge / Explorer
	Office	MS Office
	Social	LinkedIn Social Network
	Social media advertising	LinkedIn Social Media Advertising

Company	Sector	Platform/Device
	Search advertising	Bing Search Advertising
	Cloud	Azure
	SaaS	Microsoft SaaS
Yahoo (Verizon)	Search	Yahoo Search
	Search advertising	Yahoo Search Advertising
Twitter	Social	Twitter Social Network
	Social media advertising	Twitter Social Media Advertising
Zalando	Search advertising	Zalando Search Advertising
	eCommerce	Zalando eCommerce
eBay	Search advertising	eBay Search Advertising
	eCommerce	eBay eCommerce
Spotify	Audio	Spotify Music
Netflix	Video	Netflix Video
SAP	Cloud	SAP IaaS/PaaS
	SaaS	SAP SaaS
Slack	SaaS	Slack SaaS
Schibsted	Display advertising	Schibsted Display Advertising
Schibsted	Search advertising	Schibsted Search Advertising
Vivendi	Video advertising	Dailymotion Video Advertising
Booking Holding Inc	Search advertising	Booking.com Search Advertising
	Travel	booking.com
Otto Group	eCommerce	Otto Group eCommerce
Expedia	Travel	Expedia
Salesforce	Cloud	Salesforce
	SaaS	Salesforce

For these 19 companies, we considered 18 different indicators, which had been identified as potentially relevant in assessing the 3 criteria needed to demonstrate gatekeeper power (see Table 14). The following table gives an overview of the 18 indicators, a short description and the original data source.

Table 16. Indicators used in analysis, description and source

Indicator	Description	Original data source
Total revenues	Total revenues across sectors for 2019.	Companies annual report
Free cash flow	Free cash flow of company across sectors for 2019.	Companies annual report
Cash and cash equivalents	Cash and cash equivalents of company across sectors for 2019.	Companies annual report
Equity	Equity of company across sectors for 2019.	Companies annual report
Market capitalization end of year	Market capitalization end of year of company across sectors for 2019.	YCharts
Net profits	Net profits of company across sectors for 2019.	Companies annual report
Number of employees	Number of employees of company across sectors for 2019.	Companies annual report
Investment in Plant, Property and Equipment	Investment in Plant, Property and Equipment of company across sectors for 2019.	Companies annual report
R&D Investments	R&D Investments of company across sectors for 2019.	Crunchbase, companies annual report, Statista Analyse
Aggregated number of acquisitions in the last five years	Aggregated number of acquisitions in the last five years of company across sectors for 2019.	Companies annual report
Aggregated number of patents in the last two years	Aggregated number of patents in the last two years of company across sectors for 2019.	Statista Analysis based on WIPO
Number of sectors where company is active	Number of sectors where company is active in 2019. The number of monitored sectors is 19.	Companies annual report
Revenue market share (of primary market)	Companies market share in companies' primary market based on revenue for 2019.	Statista Analysis
Search traffic	The percentage of organic search referrals to the public site or service.	Alexa.com
Daily page views per visitor	Based on traffic patterns across millions of web users throughout the world, and use data normalization to correct for biases.	Alexa.com
Alexa Rank 90 Day Trend	Alexa Rank is an estimate of a website's popularity (trailing 90-day period from September 1st 2020 backwards).	Alexa.com
Global active users	Number of global users using platform (or device, where feasible).	WIK-Consult desk research
Business area rank score	The business area rank score is a combination of whether a company is active in a given sector and which rank the companies' platform takes in that sector. The more sectors a company is active in and the higher their rank (based on revenue in sector) is, the higher the score.	Statista Analysis

Descriptive statistics of all 18 indicators are provided in the following table.

Table 17. Descriptive statistics of indicators used in analysis

Indicator	Unit	N	Mean	Std. deviation	Median	Min	Max
Total revenues	m€	19	56358.46	79264.01	15266.07	562.88	250464.29
Free cash flow	m€	19	10304.88	15547.22	2351.79	-55.37	57116.07
Cash and cash equivalents	m€	19	7651.00	10549.46	3658.04	329.00	35509.82
Equity	m€	19	34970.14	47431.95	7771.77	646.34	179858.93
Market capitalization end of year	m€	19	275130.73	392253.62	77142.86	0.00	1150000.00
Net profits	m€	19	9254.09	14739.95	1666.88	-507.46	51363.39
Number of employees	#	19	90884.05	178372.77	43900.00	2045.00	798000.00
Investment in plant, property and equipment	m€	19	4611.40	6792.46	494.64	44.31	21025.00
R&D Investments	m€	19	5703.80	9352.67	615.00	0.00	32081.25
Aggregated number of acquisitions in the last five years	#	19	22.05	19.23	14.00	2.00	63.00
Aggregated number of patents in the last two years	#	19	6377.95	11846.01	206.00	0.00	36036.00
Number of sectors where company is active	#	19	3.16	3.18	2.00	1.00	10.00
Revenue market share (of primary market)	m€	19	0.26	0.30	0.12	0.00	0.98
Search traffic	%	19	22.37	15.48	22.00	0.00	58.00
Daily page views per visitor	#	19	6.07	3.43	5.03	2.65	16.39
Alexa Rank 90 Day Trend	#	19	615.42	1065.18	80.00	1.00	3983.00
Global active users	m#	19	590.86	804.97	228.00	0.15	2500.00
Business area rank score	#	19	13.68	16.79	6.00	1.00	57.00

Methodology

We carried out quantitative analysis on the basis of these 19 companies and 18 indicator variables as described in the previous section, following a two-step approach.

Step 1

In a first step, cluster analysis is used to identify the number of clusters and the members belonging to those clusters. Clustering is a common technique for statistical analysis and a powerful tool for data mining, i.e. to explore more complex datasets and detect certain patterns and characteristic relationships underlying the data. Clustering is capable of grouping a set of companies in such a way that the companies in the same group (cluster) are more similar to each other than those in other groups. Thus, the companies within a cluster are quite homogenous and characterized by similar indicator values, while the companies belonging to different clusters are rather heterogeneous and characterized by differing indicator values.

To obtain a first overview of the data, a dendrogram is produced based on hierarchical clustering. As we use a distance-based approach, the algorithm determines centroids for each cluster and groups the companies around these centroids in such a way that with each iteration, the variation within the identified clusters is reduced, which at the same time increases the variation between the clusters.

This is followed by a scree plot based on a k-means clustering in order to identify the relevant number of clusters. K-means clustering is similar to hierarchical clustering and aims to partition the companies into the k groups in which each company belongs to the cluster with the nearest mean. As k-means clustering minimizes within-cluster variances, the method is capable to identify the number of clusters, which describes the dataset most appropriately.

Finally, scatter plots based on the identified number of clusters of the k-means analysis are produced for visualization purposes.

The clustering is done twice:

- **Option 1:** All 18 indicators enter the analysis. Thus, the centroids are determined in an 18-dimensional space.
- **Option 2:** Key groups of indicators are evaluated separately e.g. those which might be associated with large gatekeeper, enduring gatekeeper and conglomerate ecosystem. Only those indicators enter the analysis, which are listed under the corresponding group heading. Thus, for the conglomerate ecosystem the clustering is based only on the number of business areas, the market share in the primary business area and the aggregated market share over all business areas.

The first step results in the number of relevant clusters, which describe the dataset most appropriately, and in an assignment of the 19 companies to the corresponding cluster.

Step 2

In a second step, a decision tree analysis is carried out in order to identify those indicators out of the 18 indicators that are of highest relevance to separate the clusters identified under step 1 and avoid any misclassification. Usually, decision tree analysis is a tool for predictive modelling approaches such as machine learning. Predictive modelling splits up the dataset into a training set and test set. Based on the training set, the relevant tree structure is identified. The approach is capable of identifying the most relevant variables with regard to an objective function out of a set of possible explanatory variable. Afterwards, the identified tree structure is applied to the test set in order to predict the values of the dependent variable (objective function). Finally, actually observed and predicted values are compared in order to specify the misclassification error.

The dependent variable in our case is the cluster into which the companies fall. Thus, the dependent variable is categorical. Therefore, the approach is applied as a classification tree. As we have only a relatively small dataset, partitioning the dataset into a training and test set would lead to misleading results. Thus, the approach is adapted accordingly. The whole dataset is used without partitioning. Possible misclassifications can be easily identified by visual inspection. Possible explanatory variables are the 18 indicators. In aligning the method as described, we can make use of the capability of this approach to identify the most relevant indicators with regard to whether these indicators classify the companies according to their cluster belonging without misclassification errors.

The decision tree analysis is applied to Option 1 of step 1 only.

The results of our quantitative analysis are shown below.

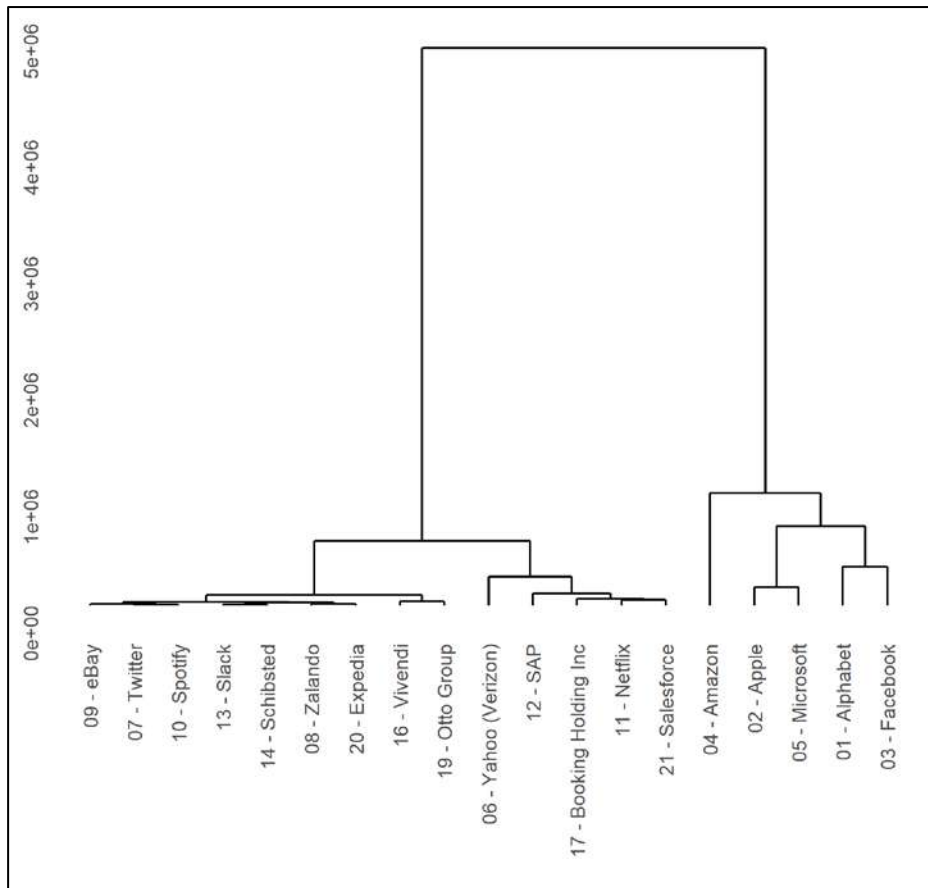
Results cluster analysis

Step 1: Cluster Analysis

Option 1: all indicators

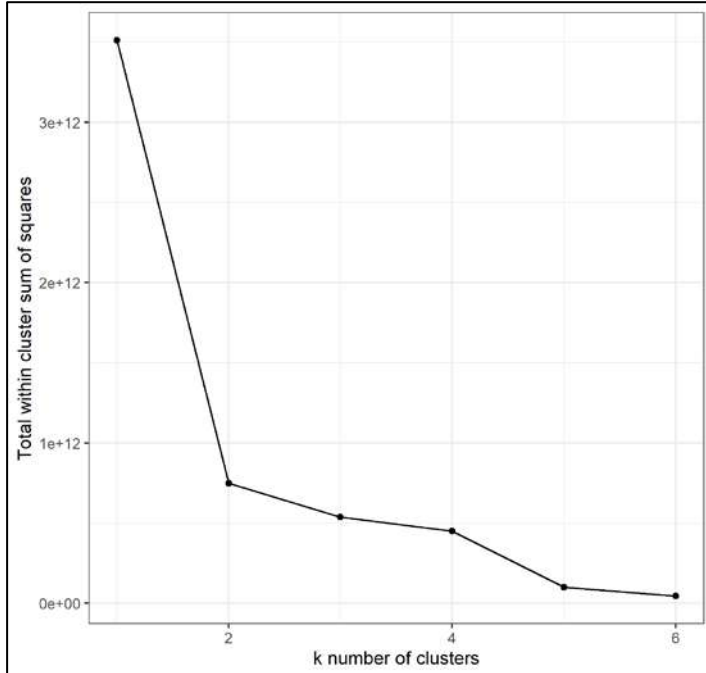
The hierarchical clustering in step 1 based on the whole indicator set (option 1) reveals that Alphabet, Amazon, Apple, Facebook and Microsoft seem to belong to the same cluster (see Figure 16). The Y-axis displays the within-cluster variation. The lower the within-cluster variation is, the more homogenous a cluster is. A split into two clusters already leads to a major cut of the within-cluster variation. Further splits cause only minor additional reductions.

Figure 16. Option 1 – hierarchical clustering



This result is confirmed by the k-means clustering. Figure 17 shows the development of the within-cluster variation as a function of the number of clusters (k). Similar to factor analysis, the optimal number of clusters is determined by the inflexion point of the graph. Thus, the optimal number of clusters is two (k=2).

Figure 17. Option 1 – k-means clustering



The following figures illustrate the cluster locations based on an analysis of the relationship between two indicators. These charts focus on financial indicators. Financial values are standardized to the sample mean. As shown in Figure 18, the five companies (cluster 1 consisting of Alphabet, Amazon, Apple, Facebook and Microsoft) are located away from the other 14 companies (cluster 2). The latter are concentrated around the origin.

Figure 18. Option 1 – equity/market capitalization

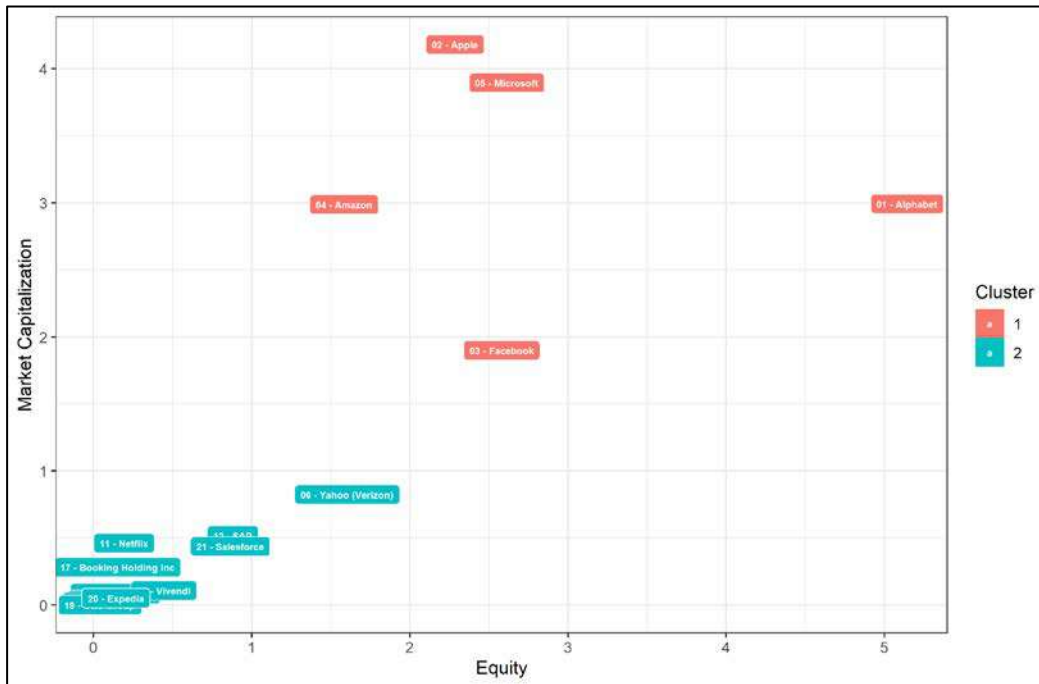
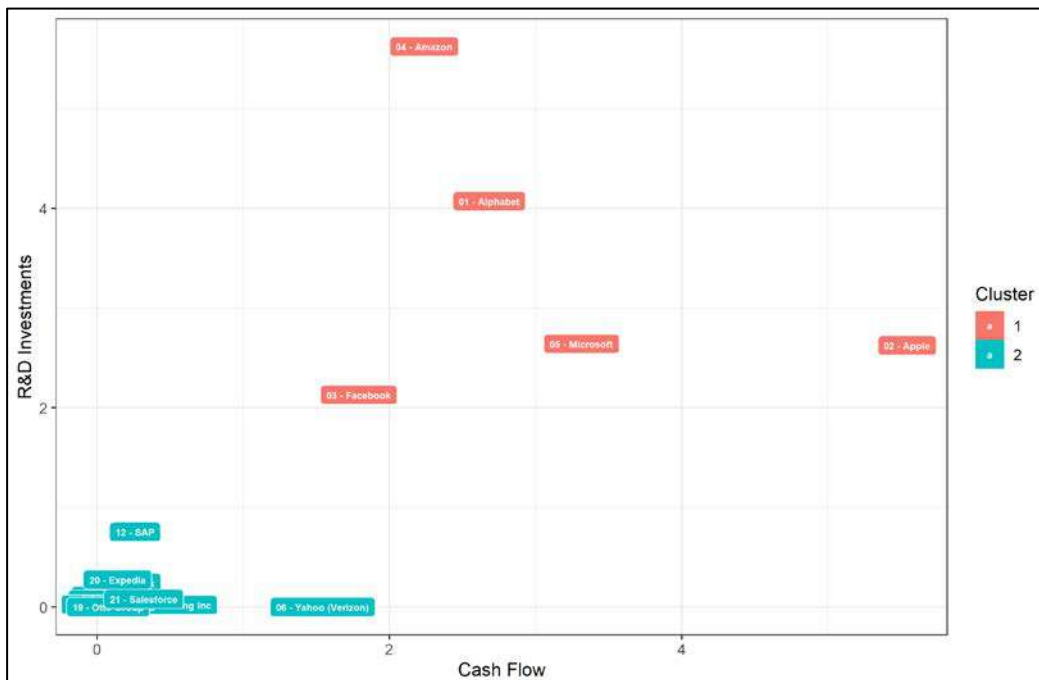


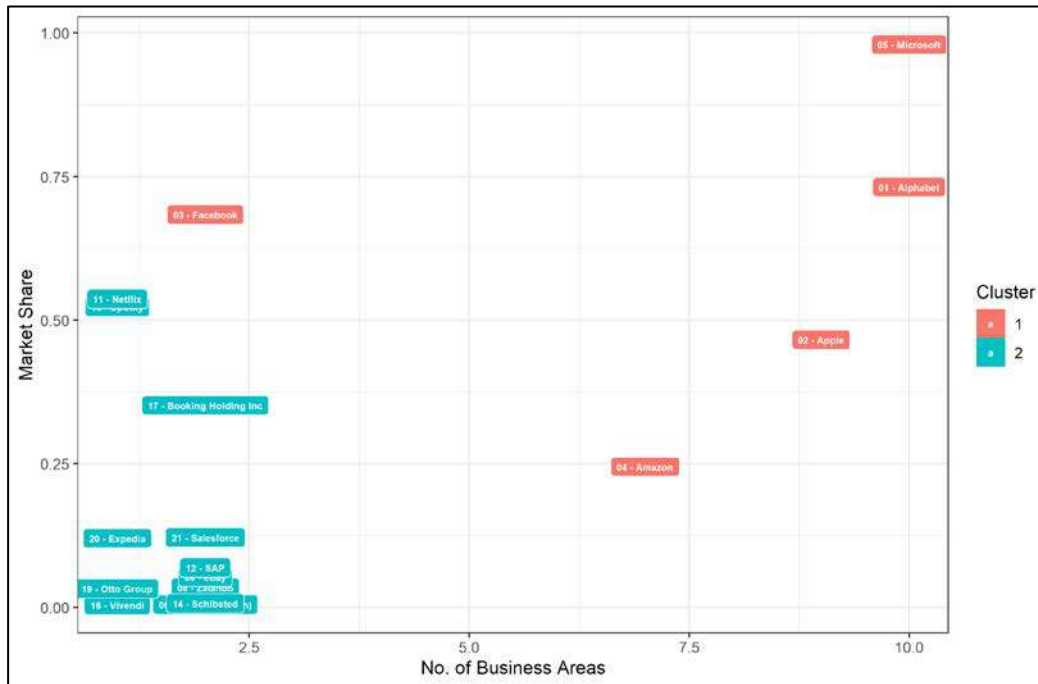
Figure 19 (free cash flow and R&D investments) reveals a location of the companies quite similar to the one of Figure 18.

Figure 19. Option 1 – Free cash flow/R&D investments



When we look at more structural indicators, which may indicate conglomeration (comparing the number of business areas and the market share in the core business area), Facebook is located a bit closer to cluster 2, while the other four companies of cluster 1 are still far away from cluster 2 (see Figure 20).

Figure 20. Option 1 – no. of business areas/market share



Option 2: Analysis limited to a subset of indicators: “large gatekeeper”

The graphs above consider all indicators together. We then separately assessed the relevance of indicators for key criteria assumed (based on our theoretical analysis) to be associated with gatekeeper power. The first dimension under option 2 of step 1 is large gatekeeper. Only those indicators are considered which are listed under the corresponding heading relating to “large gatekeepers”.

- Platform size & volume
- Total revenues
- Net profits
- Equity
- Market capitalization
- Number of employees
- Economic dependency
- Search traffic
- Control over bottleneck
- Market share in core business area

The hierarchical clustering underpins the results of Option 1. According to Figure 21 Alphabet, Amazon, Apple, Facebook and Microsoft seem to belong to the same cluster. A split into two clusters already leads to rather homogenous clusters. The k-means clustering confirms this indication. Thus, the optimal number of clusters is two (k=2) (see Figure 22)

Figure 21. Option 2 (large gatekeeper) – hierarchical clustering

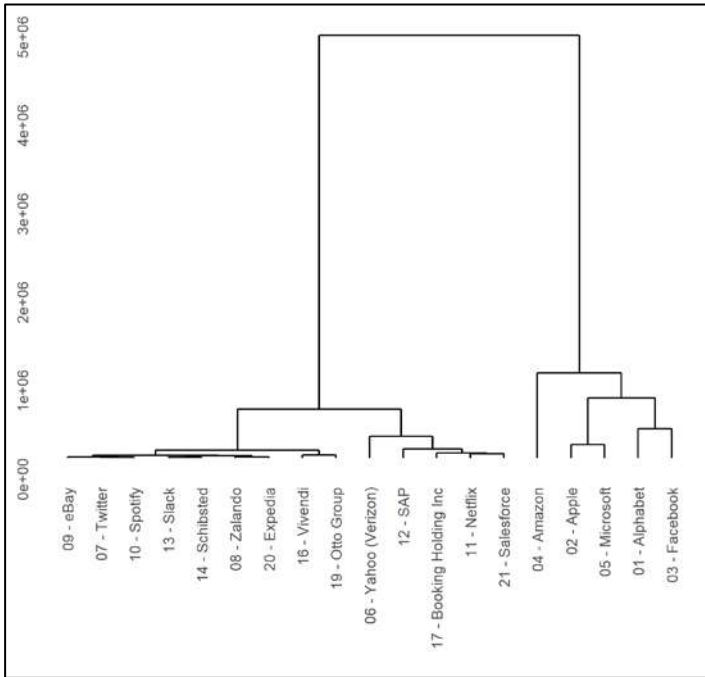
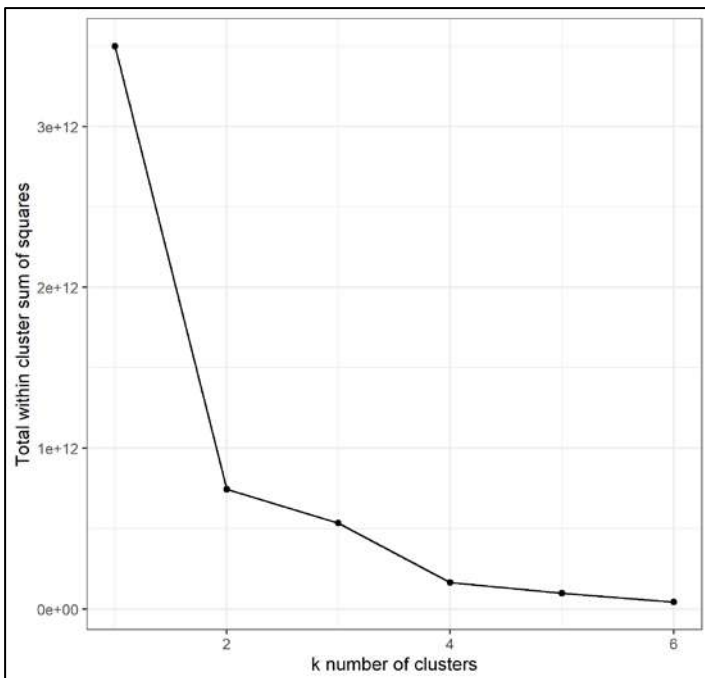
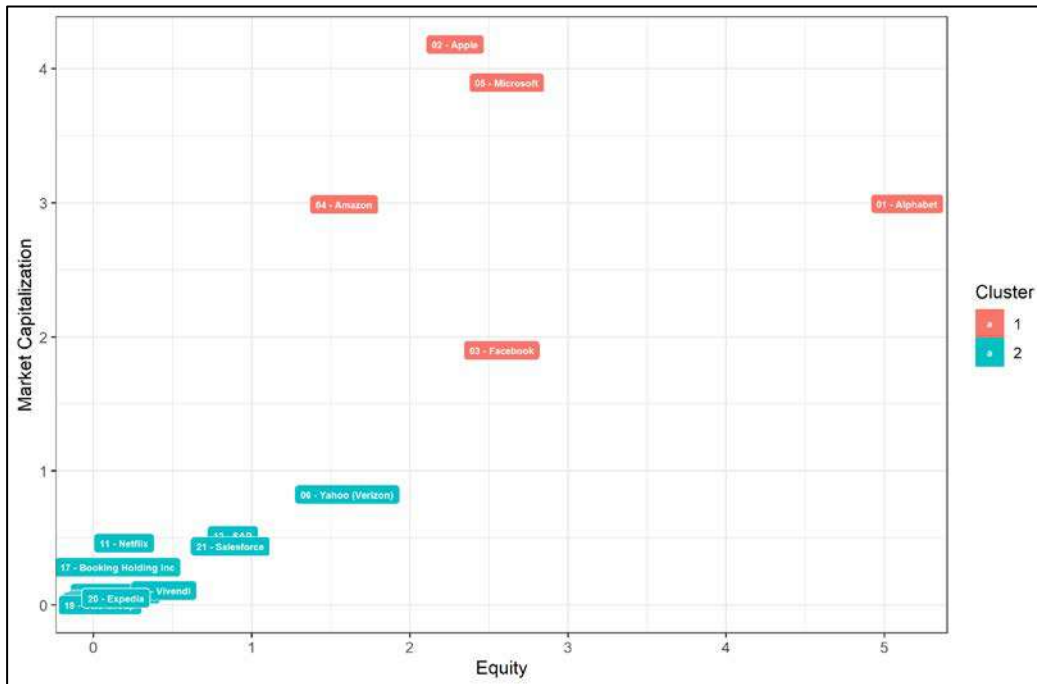


Figure 22. Option 2 (large gatekeeper) – k-means clustering



The visualization in Figure 23 for the equity/market capitalization-surface reveals the same location of clusters as Figure 18. The absolute values (especially for the financial indicators) are standardized to the sample mean, which can be interpreted as the market average. E.g., the 5 on the x-axis means that a company has an equity capital of 5-times the market average.

Figure 23. Option 2 (large gatekeeper) – equity/market capitalization



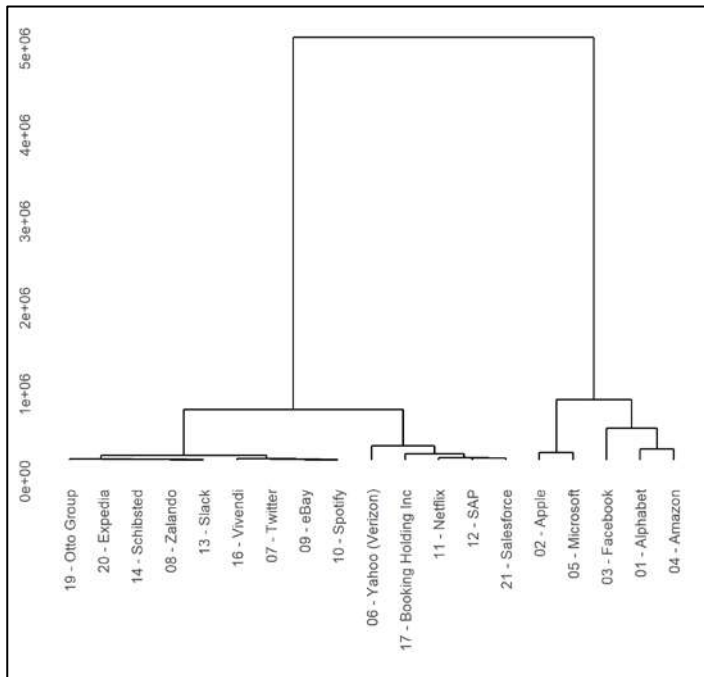
Option 2: Analysis limited to a subset of indicators: “Enduring gatekeeper”

The second dimension is the enduring gatekeeper (e.g. by virtue of its control over innovation). The indicators examined under this heading are:

- Control over data
- Number of users
- Number of business areas
- Usage intensity / Engagement
- Control over innovation
- R&D Investments
- No. Patents
- Number of acquisitions
- Investment in Plant, Property, and Equipment
- Free Cash Flow
- Equity
- Market capitalization

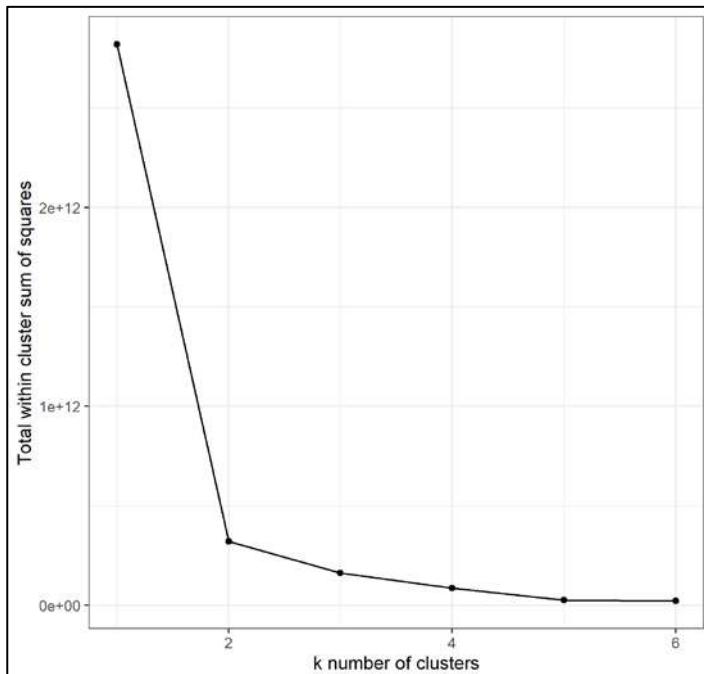
Figure 24 indicates that one split into two clusters already leads to homogeneous groups with Alphabet, Amazon, Apple, Facebook and Microsoft belonging to one cluster.

Figure 24. Option 2 (enduring gatekeeper) – hierarchical clustering



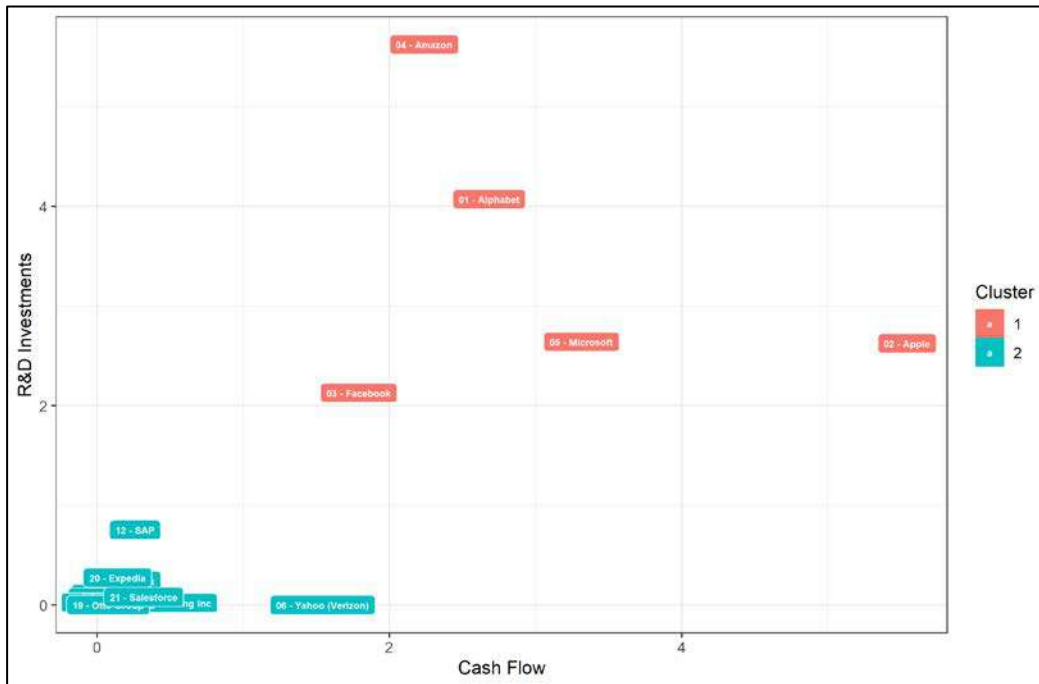
As before, the k-means clustering identifies k=2 as the optimal number of clusters (see Figure 25).

Figure 25. Option 2 (enduring gatekeeper) – k-means clustering



The visualization based on k=2 reveals the same picture for the two identified clusters with regard to the cash flow/R&D investments-surface as shown in Figure 26. The diagram further highlights the link between cash flows and R&D investments. Companies with higher available cash flows are able to sustain their position in fast-moving sectors through investing in R&D.

Figure 26. Option 2 (enduring gatekeeper) – cash flow/R&D investments

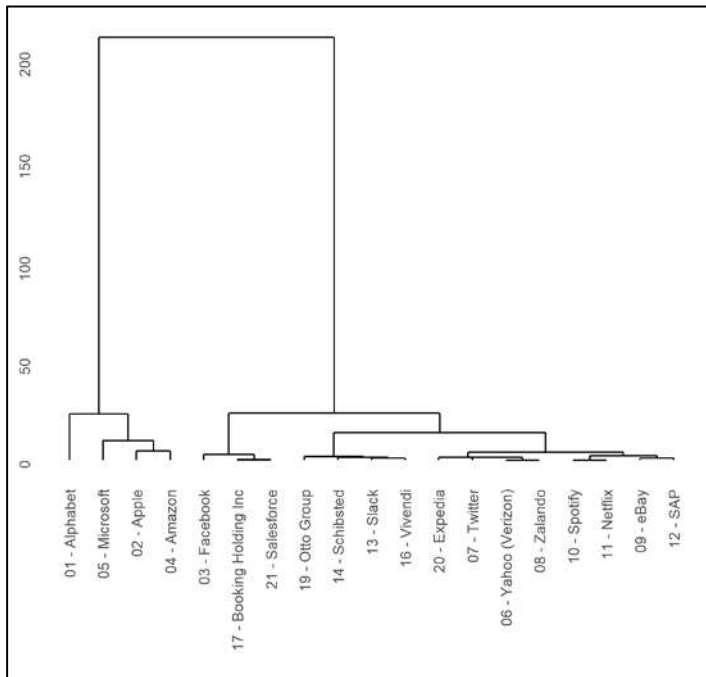


Option 2: Analysis limited to a subset of indicators: “Conglomerate effects”

The third dimension assessed, conglomerate ecosystem, takes into account the following indicators

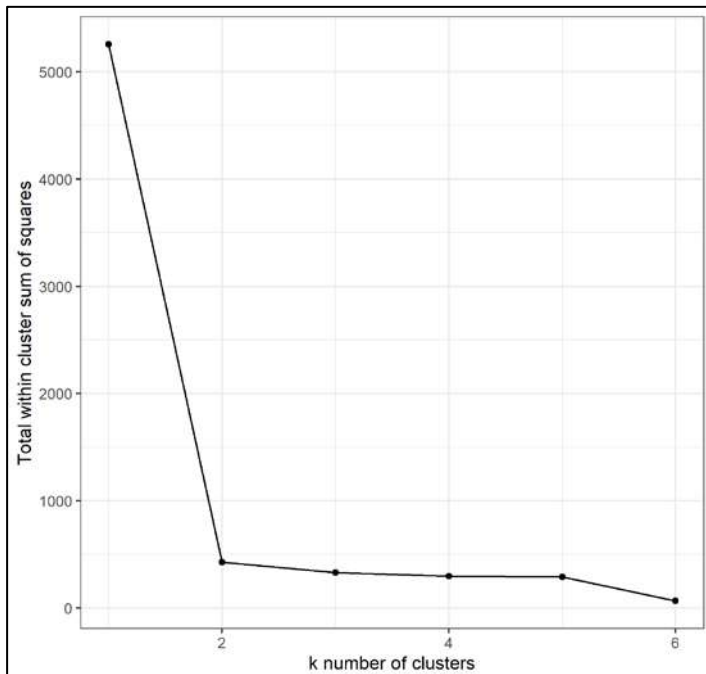
- Number of business areas
- Market shares in business areas
- Aggregated market shares over all business areas

Figure 27. Option 2 (conglomerate ecosystem) – hierarchical clustering



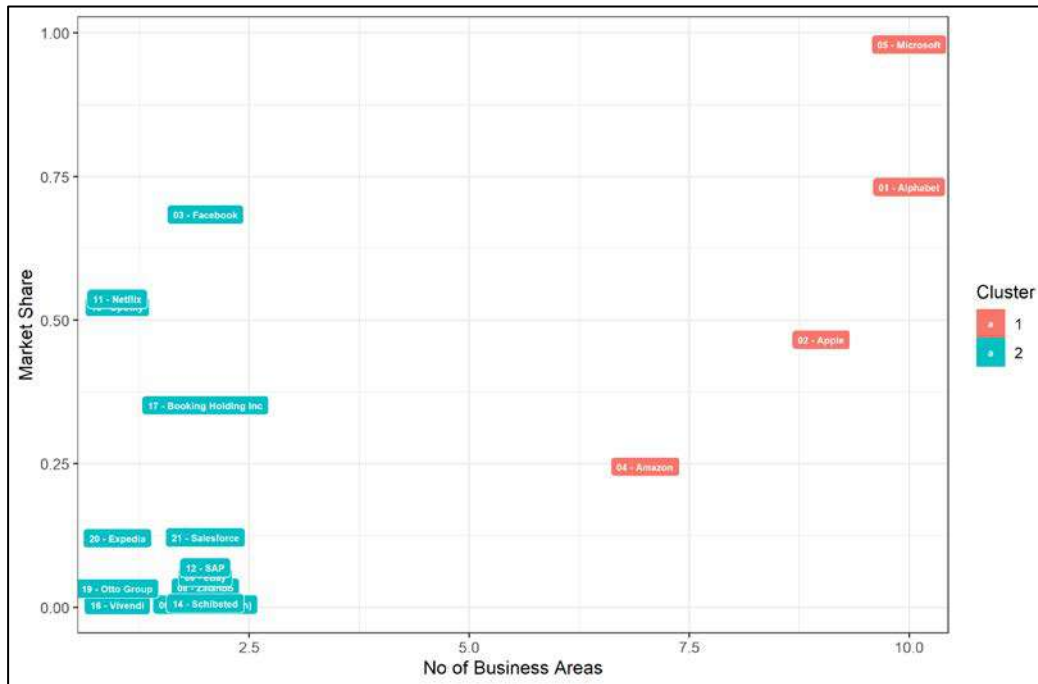
In contrast with the results on the previous dimensions, Facebook seems to change from cluster 1 to cluster 2 (see Figure 27).

Figure 28. Option 2 (conglomerate ecosystem) – k-means clustering



As shown in Figure 28, the optimal number of clusters is k=2.

Figure 29. Option 2 (conglomerate ecosystem) – no. of business areas/market share



The visualization based on the k-means clustering with k=2 confirms that Facebook changes from cluster 1 to cluster 2, if only the dimension conglomerate ecosystem is considered (see Figure 29).

Conclusions from step 1 cluster analysis

The main conclusions from step 1, considering the analysis for each of the dimensions are:

- The optimal number of clusters is two.
- Alphabet, Amazon, Apple, Facebook and Microsoft are members of the same cluster, while all other companies belong to the alternative cluster.
- Conglomeration may not be a reliable standalone indicator concerning gatekeeper power, noting that Facebook has been considered by competition authorities to have the capability to act as a gatekeeper, and meets the other criteria independently, as well as the criteria when considered cumulatively.

Step 2: Decision Tree

In step 1 two clusters have been identified for Option 1 with Alphabet, Amazon, Apple, Facebook and Microsoft belonging to the first cluster (cluster 1) and the rest of the companies to the second cluster (cluster 2). Thus, the objective function for the classification tree is:

- Y=1 for Alphabet, Amazon, Apple, Microsoft and Facebook (cluster 1)
- Y=2 for the other 14 companies (cluster 2)

Absolute values (especially financial indicators) are standardized to the sample mean of the indicator since relative values offer much better information regarding market conditions. Therefore, the tree algorithm is run several times consecutively. The first run encompasses the whole set of indicators and identifies the most relevant indicator(s) with regard to the

objective function. This (These) indicator(s), which has (have) been identified in the first run, is (are) not considered for the following runs. Thus, the second run will identify the second most relevant indicator(s). And so on.

In the first four runs, solely financial indicators are identified:

- Run 1: Free Cash Flow with the threshold 1.7-times market average (enduring gatekeeper)
- Run 2: Cash and cash equivalents with the threshold market average. (enduring gatekeeper)
- Run 3: Market capitalization with the threshold 1.4-times market average (large gatekeeper and enduring gatekeeper)
- Run 4: R&D investments with the threshold 1.4-times market average (enduring gatekeeper).

The first four runs always identify one single indicator capable of correctly classifying the companies. The model outcomes for first and third run are shown in Figure 30 and Figure 31. The root node contains information about the whole sample (100%). 74% of the companies (14 out of 19) belong to cluster 2. This analysis reveals that companies with a **free cash flow larger than 1.7-times market average** are (correctly) assigned to cluster 1. Therefore, the left leaf node contains only members of cluster 1, while the right leaf node solely contains cluster 2 members.

Figure 30. Classification tree – result of run 1

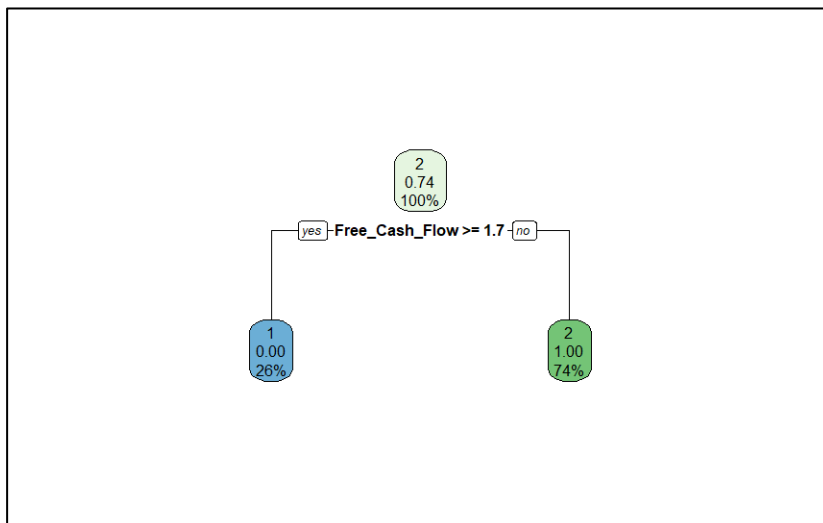
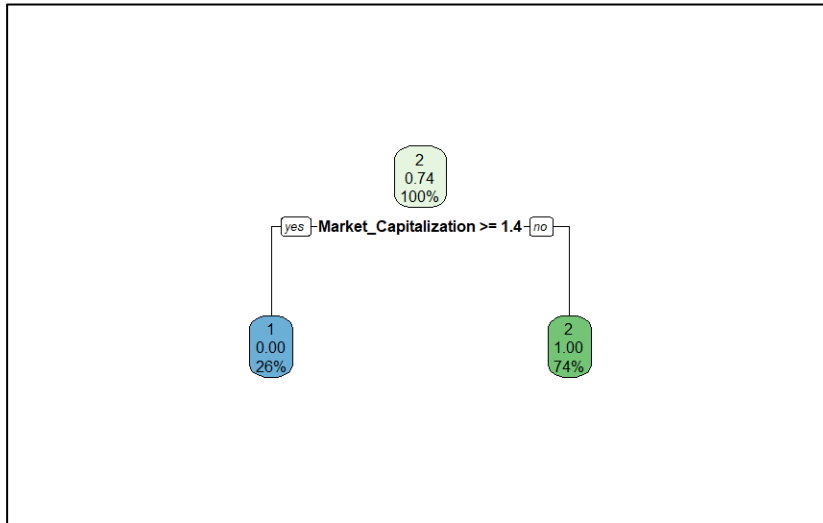


Figure 31. Classification tree – result run 3



The same holds for **market capitalization**. Companies with a **market capitalization of 1.4-times market average** are correctly assigned to cluster 1 (left leaf node). Other financial indicators seem to lead to misclassifications – at least in part. Furthermore, some indicators correctly group the companies, but show threshold values far below the market average. Although they might have high discriminatory power in a statistical sense, they have hardly any discriminatory power in an economic sense. Thus, these indicators should not enter the final indicator set.

The identified indicators of the first four runs tackle mainly the dimension enduring gatekeeper. The dimension conglomerate ecosystem is not identified as significant in these runs. As discussed above, our analysis suggests that it may not be appropriate to require conglomeration as a *necessary* criterion in concluding that a platform has gatekeeper characteristics, but rather to consider it as a supporting criterion (amongst others) that could suggest that a platform is capable of sustaining (and indeed extending) its gatekeeper position.

Furthermore, the first four runs of the tree algorithm are dominated by financial indicators. In order to have a closer look to the non-financial indicators, the classification tree is run solely based on the non-financial indicators, i.e.

- number of employees
- revenue market share in the core business area
- search traffic in percent
- daily pageviews per visitor
- global active users
- Alexa rank 90
- number of business areas
- aggregated market share over all business areas
- number of patents
- number of acquisitions

The first two runs solely based on non-financial indicators identified the following indicators:

- Run 1 (non-financial): Aggregated market share over all business areas with a threshold of 83% (conglomerate ecosystem).
- Run 2 (non-financial): combination out of number of business areas (with a threshold value of 5) and the market share in the core business area (with a threshold of 61% (large gatekeeper, enduring gatekeeper and conglomerate ecosystem)).

Thus, the aggregated market share is the most relevant indicator of the non-financial indicators followed by the number of business areas and the market share in the core business area. Other indicators tend to lead to misclassifications. Roughly speaking, due to the design of the aggregated market share over all business areas this indicator aggregates the information contained in the two indicators identified in run 2 (non-financial).

As shown in Figure 32, the indicator aggregated market share over all business areas correctly classifies the companies. Companies with a share of at least 83% are assigned to cluster 1.

Figure 32. Classification tree – result run 1 (non-financial)

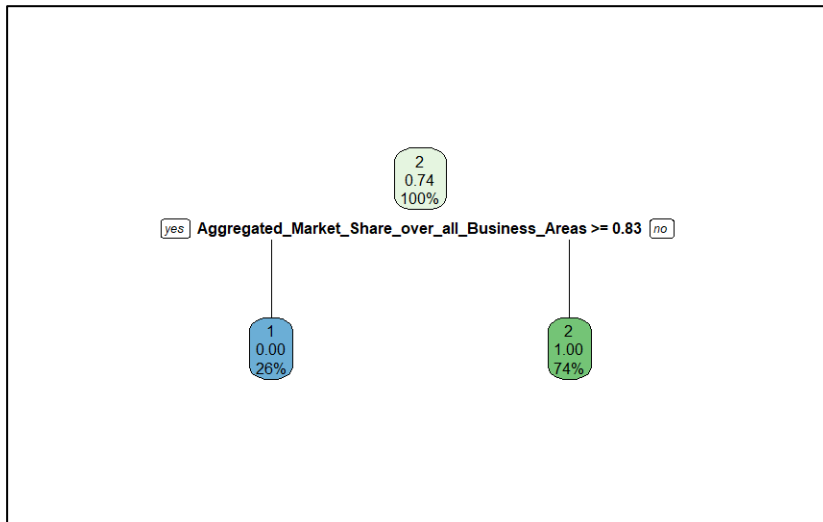
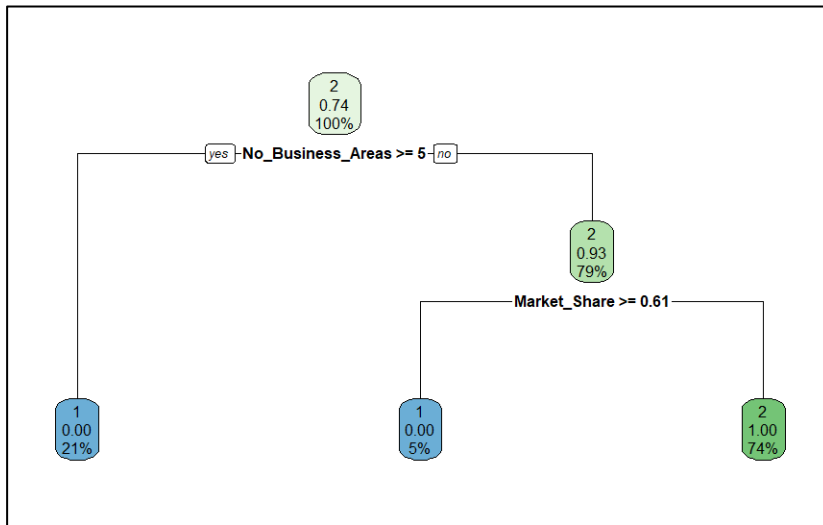


Figure 33 contains the result of run 2 (non-financial). Companies with **at least five business areas** are directly assigned to cluster 1. Companies with less than 5 business areas require an additional indicator (**market share of at least 61% in their core business area**) to be correctly grouped into cluster 1. This result corresponds directly to the scatter plots of step 1. Figure 20 corresponds smoothly with the two threshold values identified by the tree algorithm.

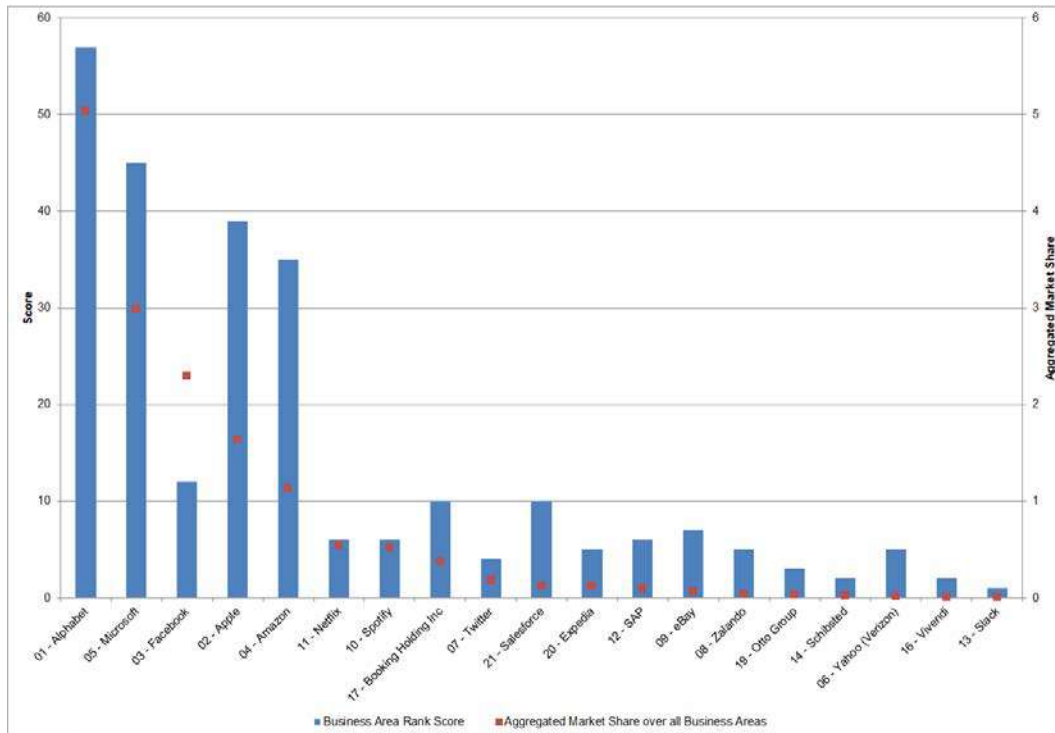
Figure 33. Classification tree – result run2 (non-financial)



It might be argued that the values for the indicator aggregated market share over all business areas can be only determined with high inaccuracies. Thus, the uncertainty associated with this indicator might flaw the outlined analysis. Therefore, we constructed an indicator **business area rank** score as an alternative. This indicator is only based on the number of business areas and the rank (position) of the company within a certain business area. Both types of information can be gathered rather easily. The **rank of a company can be determined with a higher certainty than the exact market share**. The rank of a company in a business area is then transformed into a score. The company with the highest market share in a certain business area is ranked one. The company with the second highest market share in this business area is ranked two and so on. The lower the rank is, the higher is the score. A company not active in this field is assigned a score of Zero. The indicator value of a company is the sum of these scores over all business areas.

Substituting the indicator aggregated market share over all business areas with the alternative indicator leads to unchanged results, which is an indication for the robustness of the analysis. Figure 34 illustrates the high correlation between the two indicators. A **high aggregated market share corresponds with high business area rank scores**. Except for Facebook, this holds for all companies.

Figure 34. Aggregated market share vs. business area rank score



Wrapping up, the following quantitative indicators can be considered to be associated with the criteria identified as relevant for determining which platforms hold gatekeeper power that may be sufficient to warrant ex ante regulation:

Large gatekeeper:

- High share of customers in the core business area with an indicative threshold of 61%

Enduring gatekeeper:

- Free cash flow with an indicative threshold of 1.7-times market average; and/or
- Indicators reflecting a conglomerate ecosystem such as
 - Aggregate market shares over all business areas with an indicative threshold of 83% (or high business area rank scores)
 - Number of business areas with an indicative threshold of 5.

It should be noted that the identified indicators and threshold values are dependent on the given data sample. Adding further companies/indicators or disregarding some of the considered companies/indicators likely changes the results, since it changes the underlying data. However, it could be shown that the outlined methodology is a powerful tool not only to identify the relevant indicators but also to determine threshold values, which are required for corresponding judgements.

Relevance of indicators related to dependency

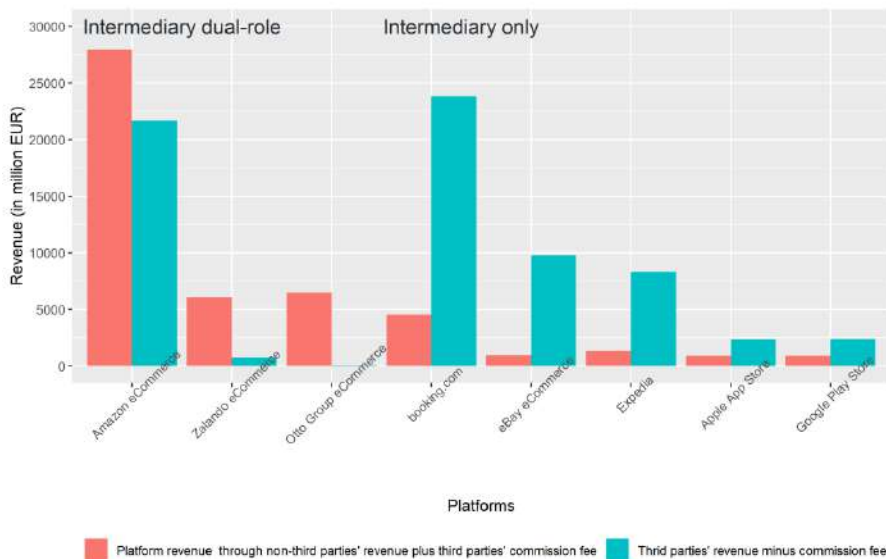
Our analysis of criteria concerning the dependency of business users on platforms in general reveals that the indicators considered for this criterion are not indicative in our dataset.

First, Amazon and booking.com have the largest and very similar third-parties' turnover on their platform. However, the revenue of the overall platform in the case of Amazon is higher than the third-parties' turnover, in contrast to e.g. booking.com due to the retail activities of Amazon which factor into the overall revenues of the platform. According to global company

numbers Amazon earns 18,4% of its overall profits from third-party seller services.³⁰⁸ However, these apparently relatively low numbers result from the fact that Amazon, in contrast to booking.com, is in the dual-role of being a provider of its own products on the platform (e.g. Amazon Basics). As highlighted from interviews and illustrated through conduct, the fact that the proportion of third party revenues and profits is low, cannot be held to imply that there is no potential for dependency.

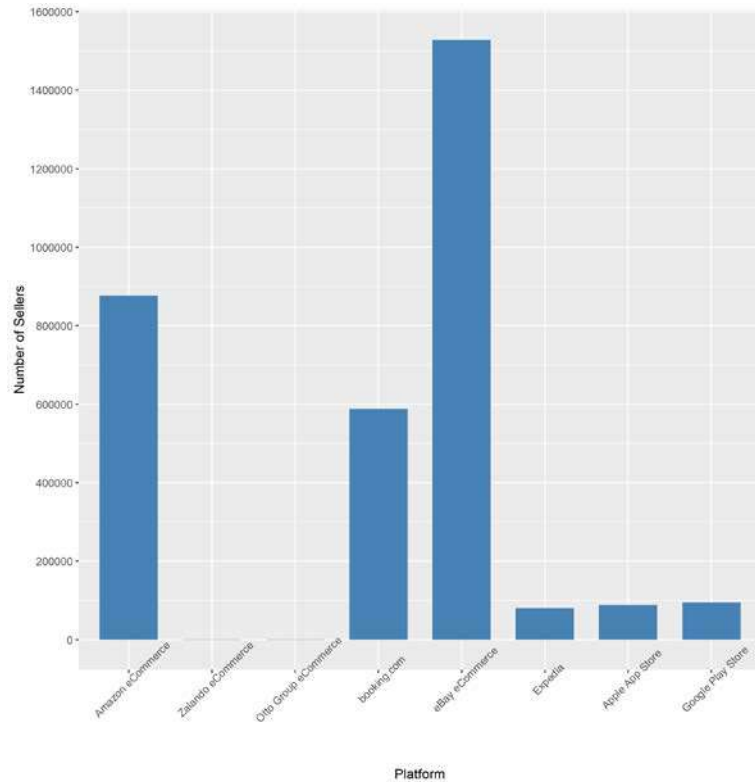
The same argument holds true for the analysis of the number of business users that rely on the intermediation services provided by the various platforms. For instance, from the platforms in our sample E-Bay has a by far larger number of business users compared to Amazon. However, our analysis of unfair behaviour and practices in the context of competition law cases and case studies does not seem to suggest that E-Bay acts as a large gatekeeper (and nor does E-Bay feature as a gatekeeper from the results of the cluster analysis). If this is true, it may suggest that the overall number of business users that rely on the intermediation services of these platforms, is also not necessarily a reliable indicator of gatekeeper status.

Figure 35. Share of turnover on platform between third parties' and platform



³⁰⁸ <https://www.visualcapitalist.com/how-tech-giants-make-billions/>

Figure 36. Third parties' turnover on platforms in sample



We also applied the methodology for company level indicator development to a sub-sample of 8 companies operating two-sided businesses. 3 new business-specific indicators are added:

- Third party net revenue
- Number of dependent users
- Commission fees in percent

As shown in Figure 37 and Figure 38, Amazon, Apple and Google still seem to belong to the same cluster with an optimal number of 2 clusters ($k=2$).

Figure 37. Two-sided business - Hierarchical clustering

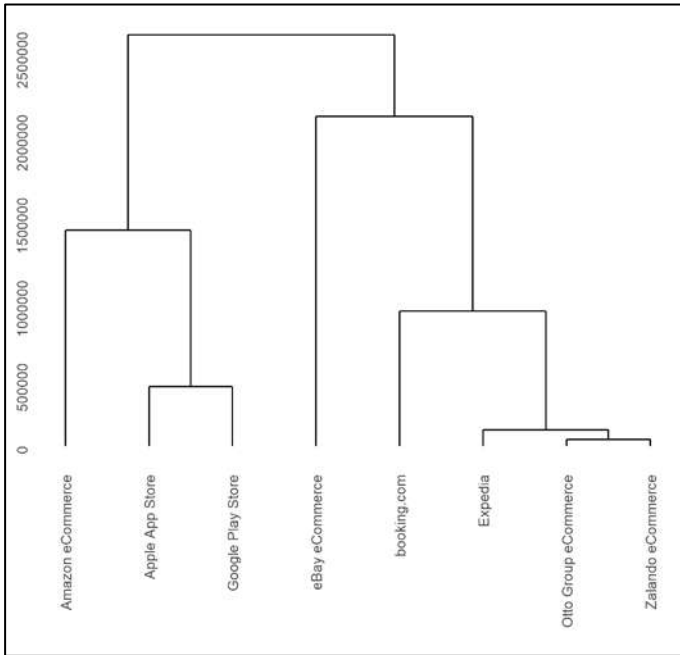


Figure 38. Two-sided business - K-means clustering

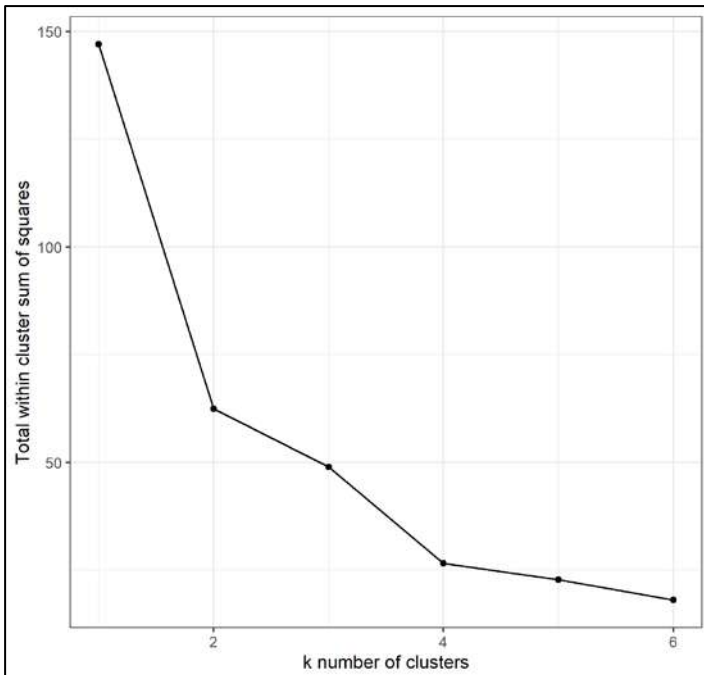
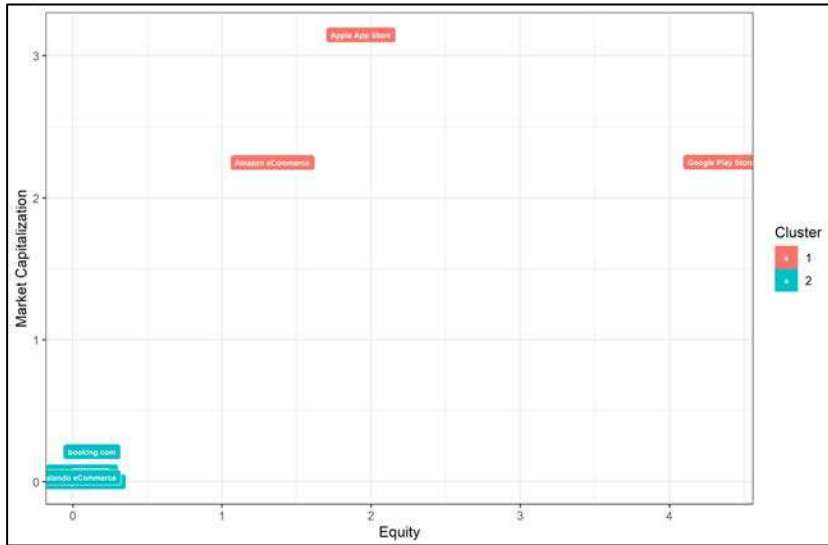


Figure 39 illustrates the location of the clusters for the equity/market capitalization-surface, which clearly reveals the two distinct clusters.

Figure 39. Two-sided business – Equity/market capitalization



Based on these findings, tree analysis is carried out in order to identify the most relevant indicators and corresponding threshold values. Similar to the analysis of the whole set of 19 companies, financial indicators dominate the first runs of the classification tree with the free cash flow as one of the most relevant indicators. Runs based solely on non-financial indicators reveal the aggregated market share over all business areas as one of the most relevant non-financial indicators. As shown in Figure 40 and Figure 41, threshold values for the sub-sample are somehow below threshold values identified for the whole dataset. Thus, threshold values identified for the whole sample also work for the sub-sample. The added business-specific indicators play no role in this context. Based on the given data, a separate analysis of the sub-sample of two-sided businesses would not be required. One- and two-sided businesses seem to be adequately classified by the same set of indicators.

Figure 40. Classification tree – result run (all indicators)

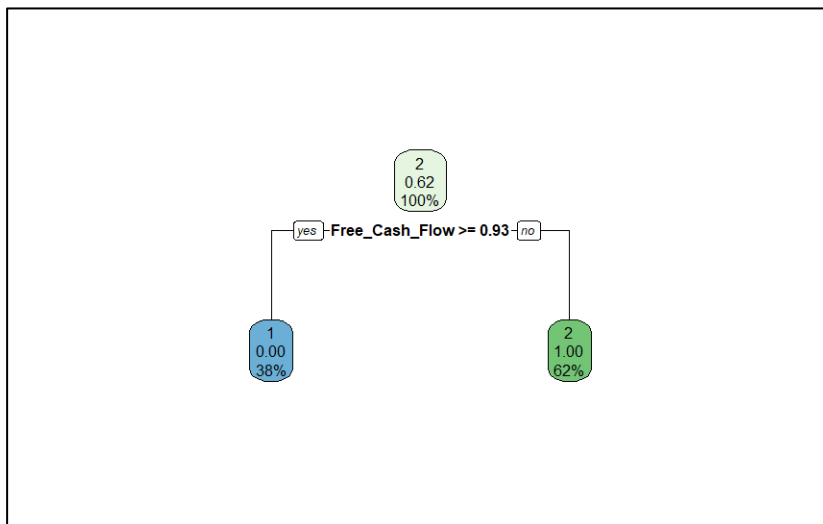
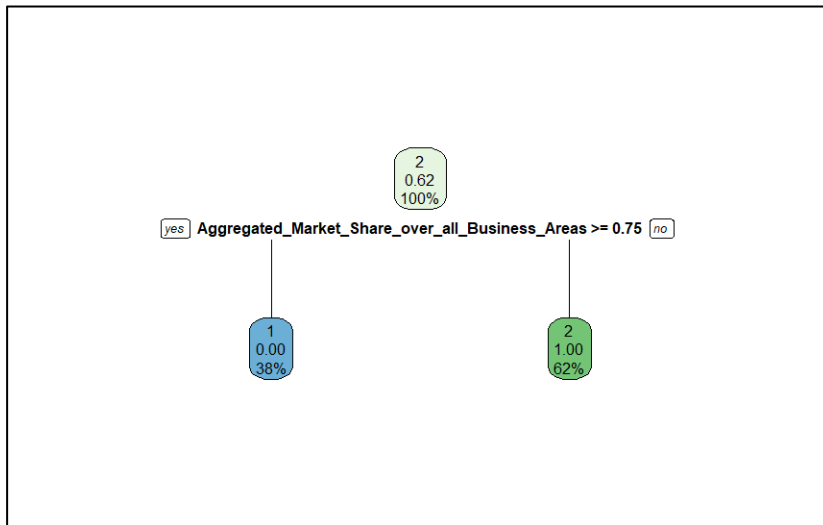


Figure 41. Classification tree – result run (non-financial)



Analysis by business area

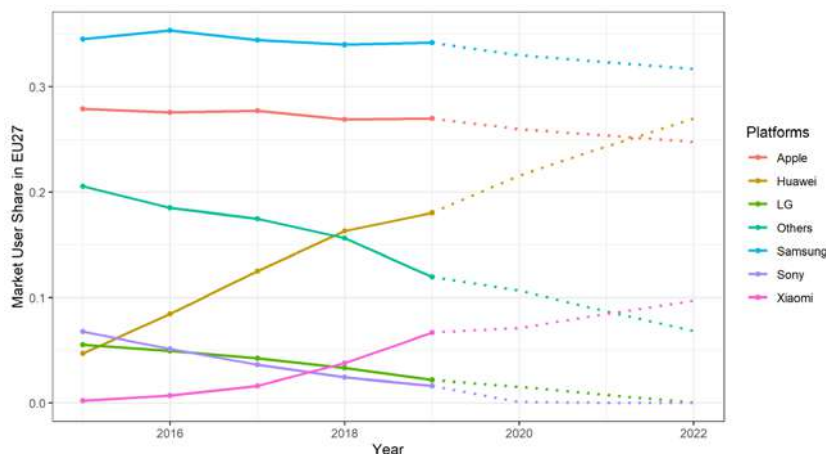
The cluster analysis previously described tends to result in the identification via quantitative indicators alone of five of the largest platforms as potential “gatekeepers”, based on available data.

However, it is possible that a closer examination of specific platform services with consideration of qualitative criteria might also reveal other players which could potentially act as gatekeepers and/or reveal more about the position of the largest gatekeeper platforms within specific platform services. In this section we consider developments across a number of platform services to identify whether a combination of quantitative and qualitative insights at the level of platform type may yield further insights.

Smartphones

Digital services and goods need a digital environment in which they can be consumed. Smartphones have evolved into the dominant digital environment for Internet access, content consumption and personal communications.

Figure 42. Smartphones – Users



The smartphone market in the EU over the last 5 years has matured in terms of overall sales volume, but still shows dynamism. New players like Huawei and Xiaomi have successfully established themselves in this competitive market and are forecasted to increase their volume of smartphone sales and market share in the EU over the next years.

We advise the reader to consider the forecast for Huawei with caution. Due to recent developments in the trade dispute between the US and PRC, Huawei's access to the Google's Play Services and US electronics components is under threat. Since that time preliminary numbers suggest a stark decline in consumer demand for Huawei smartphones.

Figure 43. Smartphones – Revenue

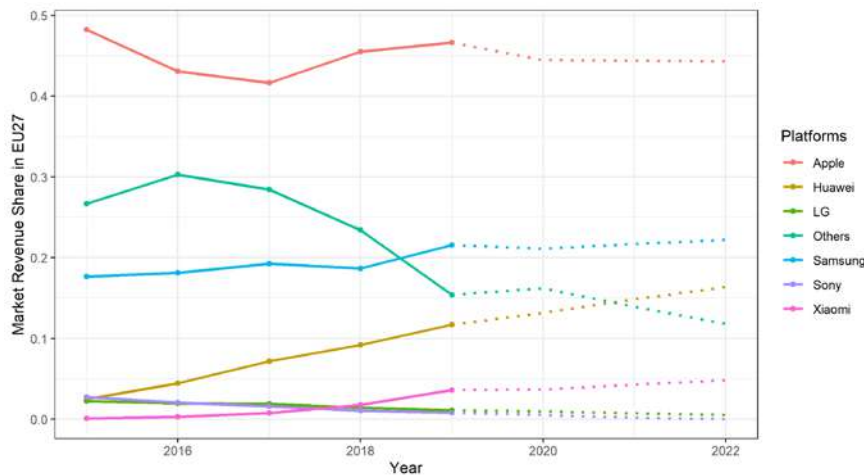
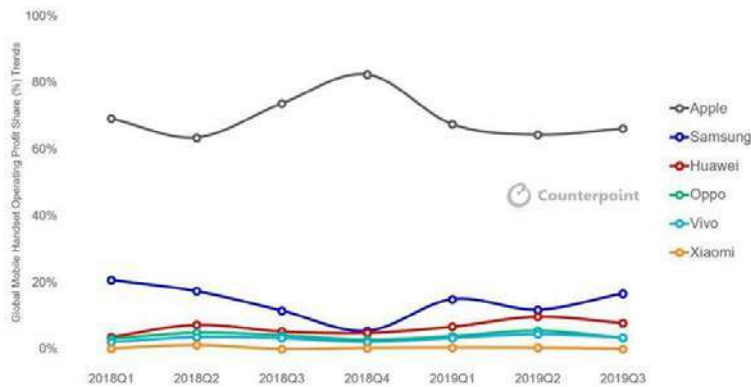


Figure 44. Smartphones – Global profit share trends



Source: forbes.com³⁰⁹

Analysis insight:

We do not find evidence for a strong position in the European smartphone market by user market shares or revenue market shares. Apple is able to capture the largest share of overall industry profits globally. However, despite the fact that Apple is capturing the largest **share of smartphone industry profits**, this is not a reliable indicator for gatekeeping power, as Apple devices have a higher average sale price compared to their competitors and consumers might be willing to pay these prices because they prefer the companies approach to privacy and the collection of user data. Therefore, one cannot conclude based on these insights alone that consumers are e.g. locked into the Apple ecosystem.

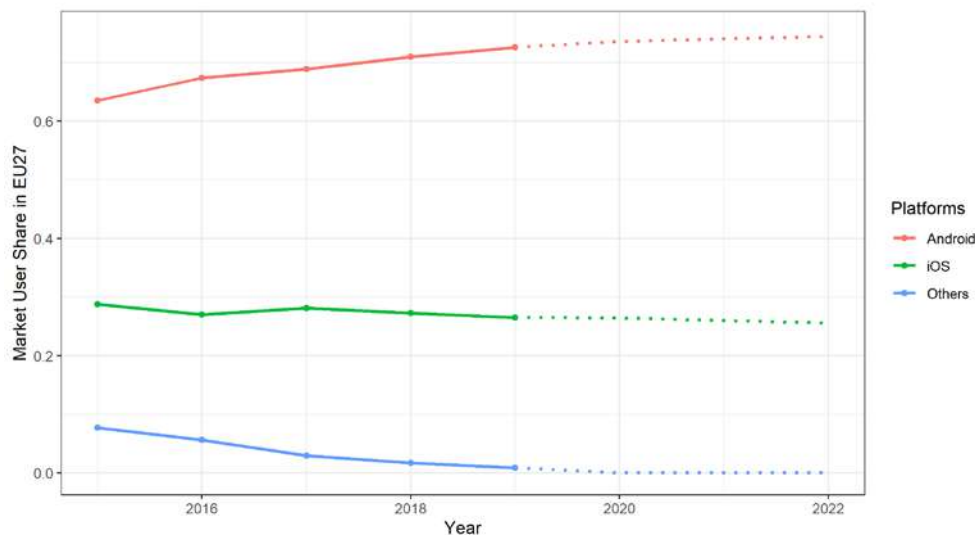
³⁰⁹ <https://www.forbes.com/sites/johnkoetsier/2019/12/22/global-phone-profits-apple-66-samsung-17-everyone-else-unlucky-13/#3bf4ba232ff3>

However, the fact that purchasers of Apple (and other devices) are locked into the system they have purchased (i.e. similar to an **after-market effect**), and the fact that device manufacturers control access to technical functionality can lead to the exercise of gatekeeping power. The risk of such power being exercised is higher for device manufacturers with a **large customer base** (even if they do not have a very high market share), as they hold the keys to a significant user base, which increases their bargaining position in relation to application providers which may depend on access to those users. This risk is further increased for device manufacturers which are **active in downstream markets**.

Mobile operating systems and AppStores

Despite the fact that there are more than five companies selling significant volumes of smartphones in the European market, the underlying mobile operating system landscape is less diverse. In contrast to the diverse and competitive market for mobile electronic devices, the mobile software market is dominated by only two companies: Google (Android) and Apple (iOS).

Figure 45. Mobile operating system – Users



In terms of mobile operating system user market shares Google's Android clearly dominates the market and is forecasted to extend its lead in the EU over iOS in the next years.

Mobile operating system revenues are not displayed in this section, since Apple's iOS is not licenced to other companies and therefore does not create revenues as a stand-alone product. Google did not charge licensing fees for the use of the Android operating system by other manufacturers as well. However, Google's Android operating system has been under antitrust scrutiny in the EU. In July 2018 the European Commission fined the company 4.3 billion € for antitrust violations due to "illegal tying" of the browser Chrome and its search apps to Android.³¹⁰

Due to that regulatory intervention, Google introduced licensing fees for its suite of apps (which includes the Google Play Store) in the EU and divides the European region into three high-level tiers.

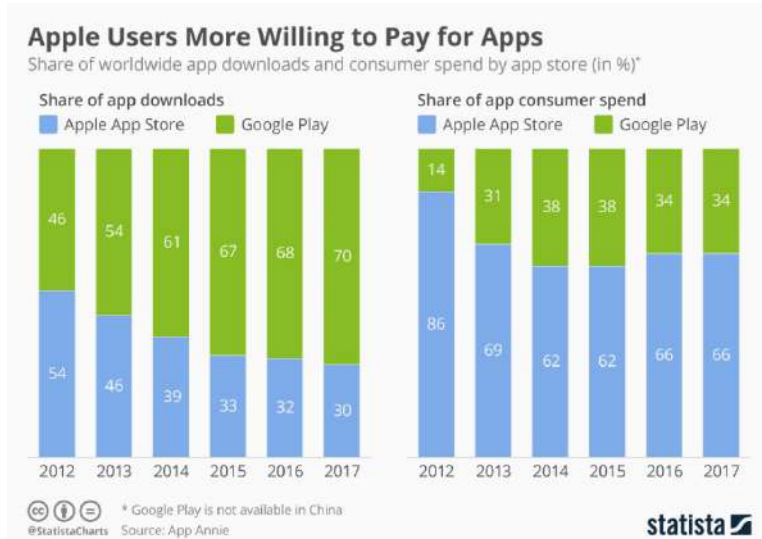
A manufacturer that sells a device with e.g. a pixel density higher than 500 ppi must pay a \$40 license fee. For devices with lower pixel density Google charges a \$20 or \$10 fee. Due

³¹⁰ https://ec.europa.eu/commission/presscorner/detail/en/IP_18_4581

to further differentiation on the country level and lower-end phones, the fee can be as little as \$2.50 per device.³¹¹

Finally, Apple is the only provider in the smartphone market that provides an integrated system of hardware and software. Google is also offering its own hardware that is shipped with its in-house operating system Android. However, in contrast to Apple, Google provides its operating system to other hardware manufacturers, leading to a far larger and more diverse installed base.

Figure 46. Willingness to pay of App Store users



Nevertheless, despite the larger installed base of Android compared to iOS, users of Apple devices spend more money in the respective App Store. Therefore, Apple is able to absorb a larger proportion of the mobile App economy turnover than its rival with a larger installed base.

Analysis insight:

The business area for mobile operating systems in the EU and globally is a de facto duopoly and many competitors have exited the market. The market is shared between Google (Android) and Apple (iOS). Other platform providers like Microsoft, RIM and Nokia have discontinued the development of their mobile operating systems.

This market does not tend towards more competition in the foreseeable future. Consumers switch between devices with different operating systems, but churn rates are relatively low. Important indicators for gatekeeping power that emerged in our analysis are:

- Market shares
- Tying of OS and AppStore: Side loading is a term that describes the feasibility of installing software from other sources than the operating system provider's software marketplace. Side-loading is possible on Android devices, but not on iOS devices. Therefore, tying of app stores and operating systems can be an indicator for gatekeeping power.
- Technological OS bottlenecks: Mobile operating systems can be designed to exclude competitors from using specific hardware functionalities (c.f. case study 7 / NFC). Preventing access to specific operating system technologies can therefore constitute gatekeeping power. (e.g. Apple not supporting Adobe Flash, Apple not supporting the Google video codec G9). This source of gatekeeper power is different from the

³¹¹ <https://www.theverge.com/2018/10/19/17999366/google-eu-android-licensing-terms>

gatekeeping power emerging from mobile app stores, as it covers closed system designs (app-containers), undocumented APIs and default, as well as pre-installed applications.

Desktop OS

Microsoft still has a dominant share in the market for end-user applications, including OS, Office and Exchange. However, its market share in the desktop operating system market in the EU has declined over the last five years. Globally the share is also declining, although it still stood at 78% in January 2020³¹².

Figure 47. Desktop OS – User share (EU)

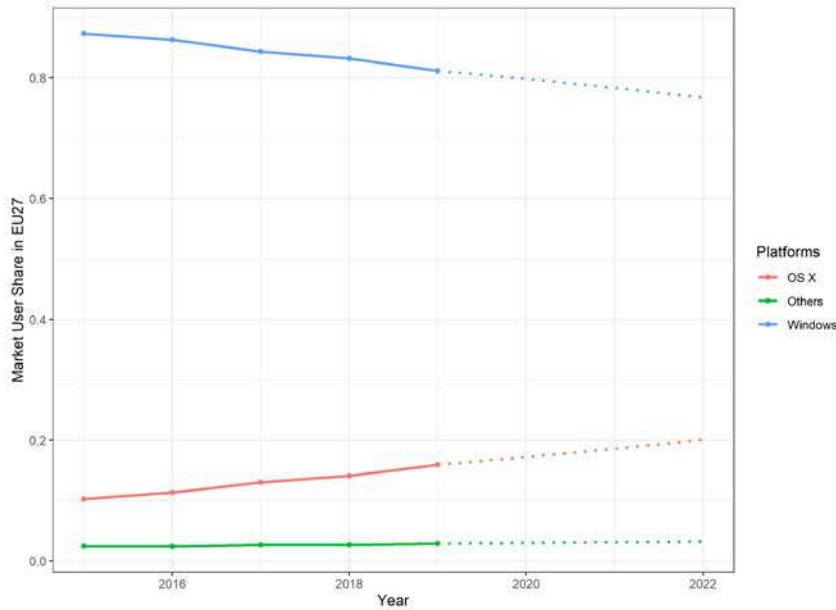
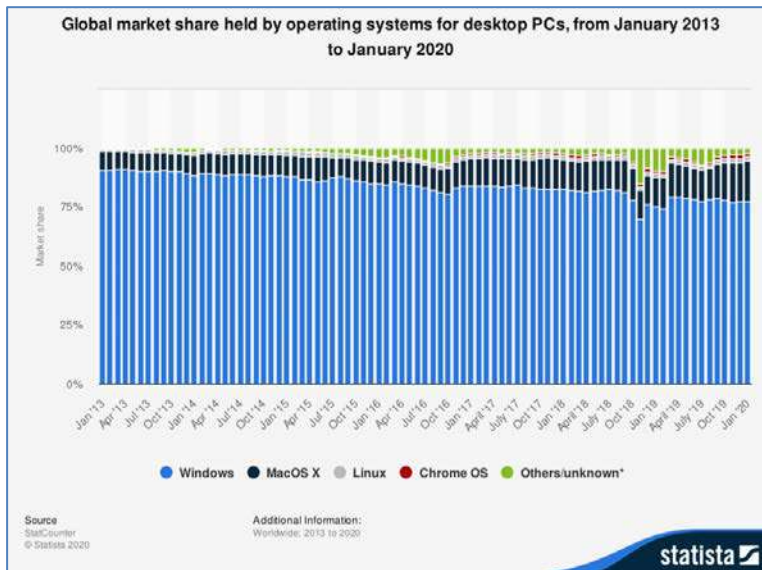


Figure 48. Desktop OS – User share (global)



Analysis insight:

³¹² Statista 2020

Despite Microsoft’s declining market-share in the desktop OS business area, its share of this market remains very high, and is likely to remain high in the medium term, providing the potential for Microsoft to leverage into downstream markets through bundling. Furthermore, Microsoft could use its position in desktop OS to gather data about its customers, especially in the context of its latest version of Windows.³¹³ This could further strengthen its position in related data-driven markets. In summary, alongside Microsoft’s conglomerate status and strong financial position, concerns could be raised in the desktop OS segment, with key indicators being:

- Market shares
- Tying / Bundling

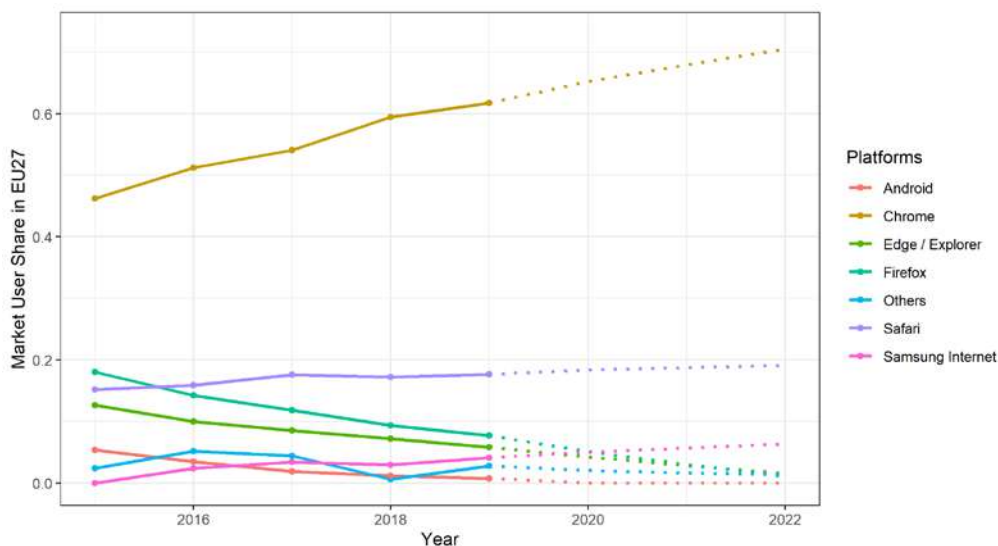
Web-Browser

Web-browsers are the gateway to the Internet for end-users. Web-browsers can constitute a gatekeeping technology for several reasons. First, web-browsers come with default options for e.g. search-engines and allow the provider of the browser to steer consumers towards its own search-engine. Second, web-browsers can incorporate additional features (previously provided by add-ins or extensions) such as ad-blocker or privacy enhancing technologies. Third, by the means of a browser the provider can collect data about the consumption behaviour of users in the Internet and thus benefit from data-driven network effects.

Operating system providers can leverage their gatekeeper position on the operating system level to provide consumers with default web-browsers that are pre-installed. Therefore, OS providers can limit the diffusion of alternative browsers of their competitors.

Search engine providers can leverage their position in the browser market to improve and cement their position in the search engine market and prevent alternative search engines from gaining traction.

Figure 49. Web-browser users



Analysis insight:

The market for web-browsers is concentrating as Google’s Chrome browser is gaining market-share. This business area does not appear to be tending towards more competition in the medium term, and a number of competitors show declining market shares. Consumers

³¹³ Microsoft opens up on Windows telemetry, tells us most of what data it collects | Ars Technica

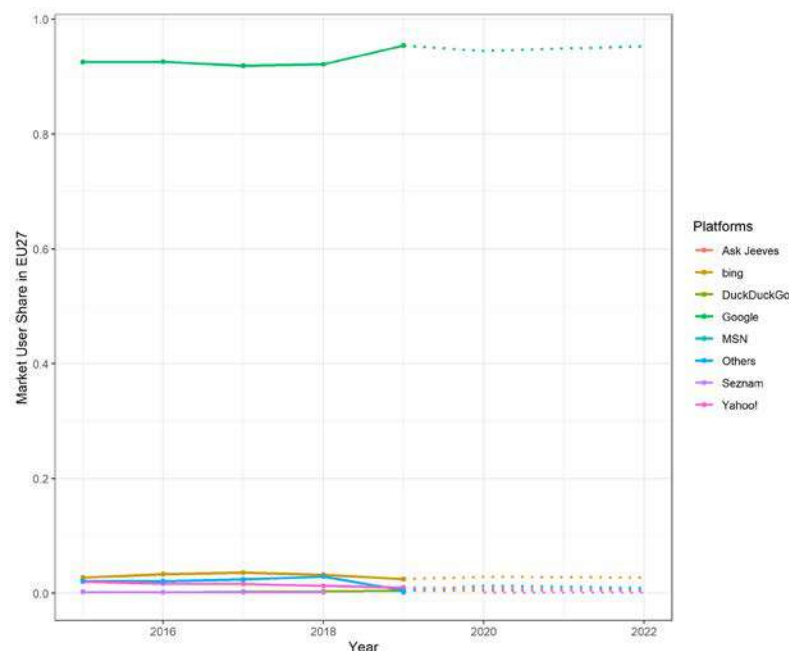
are forecast to gravitate even further towards Google's Chrome browser, which will further cement Google's already dominant position in the search engine market. In addition to its conglomerate position and strong financial capabilities, important indicators for gatekeeping power in this business area that emerged in our analysis are:

- Market shares
- Dual-role:
 - Browser providers that are in a dual-role of providing the browser technology and e.g. search engines could have an incentive to discriminate against rival search-engines establishing themselves as default option on their technology (c.f. case-study 6).
 - Providers of advertisement networks could have an incentive to discriminate against advertisements from competing advertisement networks by steering consumers away from those sites (c.f. case-study 6).
 - Providers of App Stores can have an incentive to discriminate against web-advertisements in general to steer service providers to their App Store, which allows them to take a share of their monetary revenues. However, it is important to note that privacy enhancing features and preventing intrusive advertisements can also increase consumer welfare. Nevertheless, by draining web-based advertisement revenues of service providers, large platforms at the same time increase the attractiveness of their closed App Store ecosystems.

Search

Search engines are an essential technology in the Internet ecosystem. Search engines direct users towards relevant sites based on the keywords they entered, user data about specific users and the data about websites that are constantly monitored by search engine providers.

Figure 50. Search engines – Users



Despite several competitors being active in the EU, Google has continually increased its market share in the search-engine market. The same holds true for the revenues in the search-engine market. Google continuously increased its share of the search engine

advertising market over the last five years as well. Projections of the trend for the following years lead us to expect that this share may increase further in the future

Figure 51. Search advertising – Revenue absolute

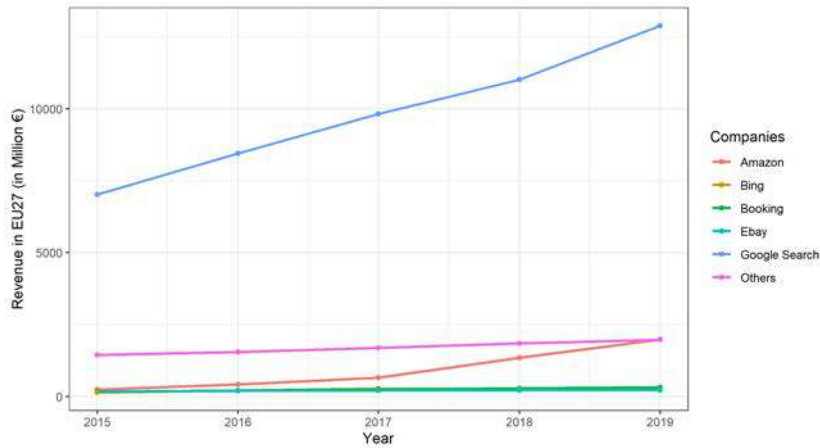
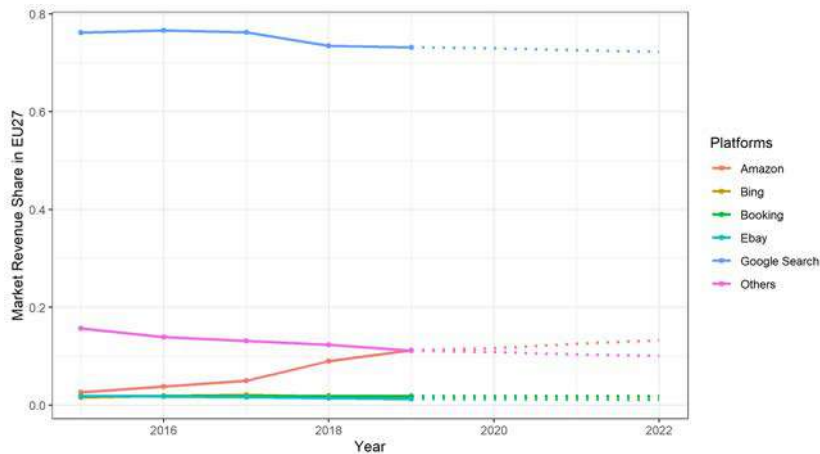


Figure 52. Search advertising – Revenue shares



Analysis insight:

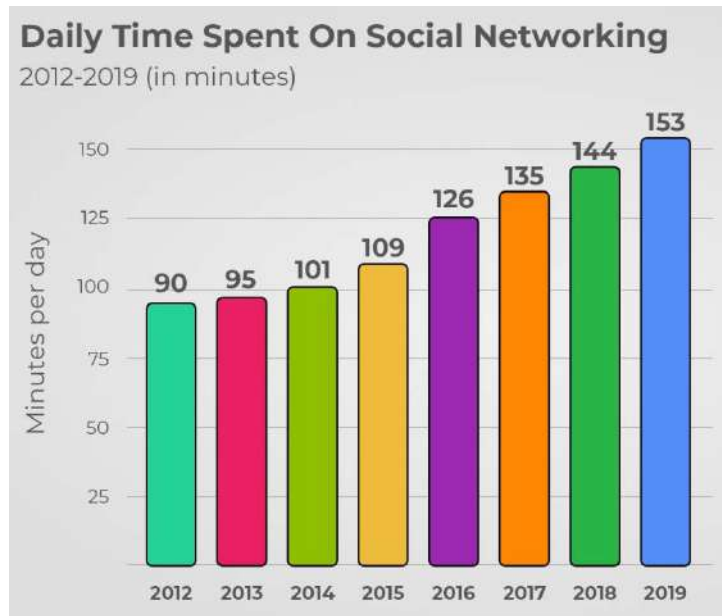
The market for search-engines is further concentrating as Google’s share in search-advertising revenues and its share of users in this segment continues to increase. The market does not appear to be tending towards more competition in the medium term. Important indicators for gatekeeping power that emerged in our analysis for the business area search are:

- Market shares, overall number of users, number of search requests per session
- All-purpose characteristics:
 - Search engine providers that are in a general purpose role of providing a universal search-engine technology can have an incentive to discriminate against rival (specialized) search-engines on other levels of their ecosystem to establish themselves as default option for consumers.
 - We learned in our focus-groups with consumers that convenience is a very important factor in consumer’s decision making processes. Therefore, a “one-size-fits-all” search engine has advantages in contrast to specialized search-engines.
- In addition to meeting these characteristics, Google benefits from **conglomerate status**, strong financial capabilities and deep data sets enabling targeting of services.

Social media

Social media consumption takes up an important proportion of users' daily online activities and the time consumers spend daily on social media on average has been significantly increasing over the last five years.

Figure 53. Social media – Time (global average)

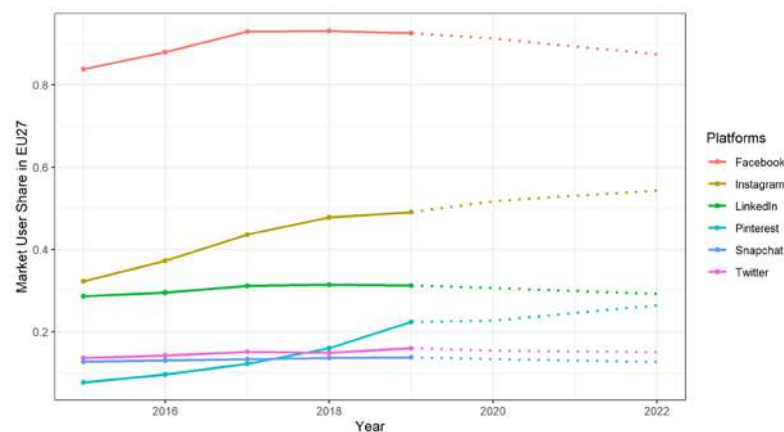


Source: www.broadbandsearch.net³¹⁴

However, in contrast to other continents around the world Europe features the lowest average usage intensity (75min) of social media and therefore the actual average usage time in the EU is far below the above depicted global average (ca. 50%).³¹⁵

In the EU, Facebook still holds the dominant position in terms of user shares of the overall social media market. Despite the fact that the user share of Facebook's core network is falling and is forecast to decline even further in the next years, Facebook's acquisition of Instagram in 2012 proved to be a wise investment. The user share of Instagram in the EU is rising and predicted to further rise in the foreseeable future, counterbalancing the negative trend we observe for Facebook's core network.

Figure 54. Social media – Users



³¹⁴ <https://www.broadbandsearch.net/blog/average-daily-time-on-social-media#post-navigation-6>

³¹⁵ <https://www.broadbandsearch.net/blog/average-daily-time-on-social-media#post-navigation-6>

The market shares of Facebook and Instagram in the overall European social media market are rising over the last five years, while the user shares and market shares of direct competitors are showing only minor growth, stagnate or even decline.

Figure 55. Social media revenues (absolute)

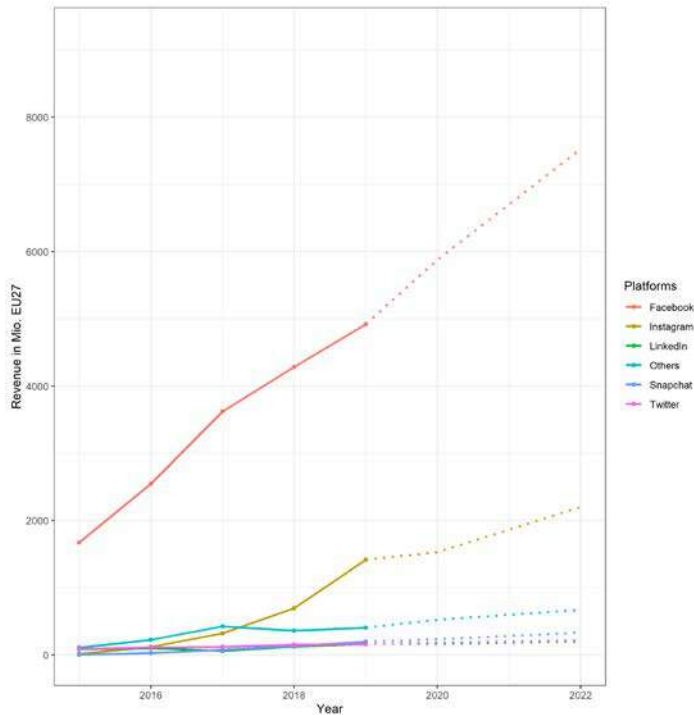
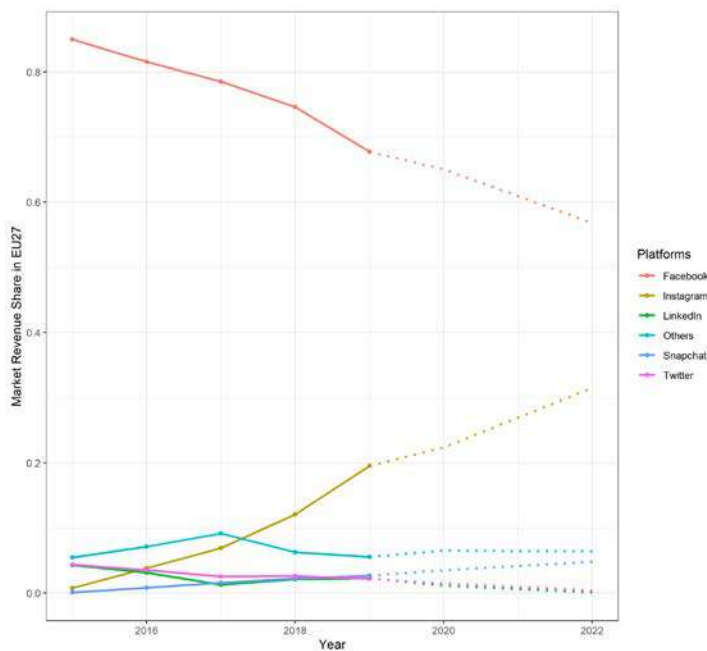


Figure 56. Social media – revenue shares (extrapolated)



Analysis insight:

The business area social media is dominated by Facebook and its most important complementary service Instagram. The trends in user data and market shares suggest that it

might be necessary to combine the market shares of different services if the degree of substitutability is relatively high. In addition to Facebook's strong financial capabilities, indicators of market power may include:

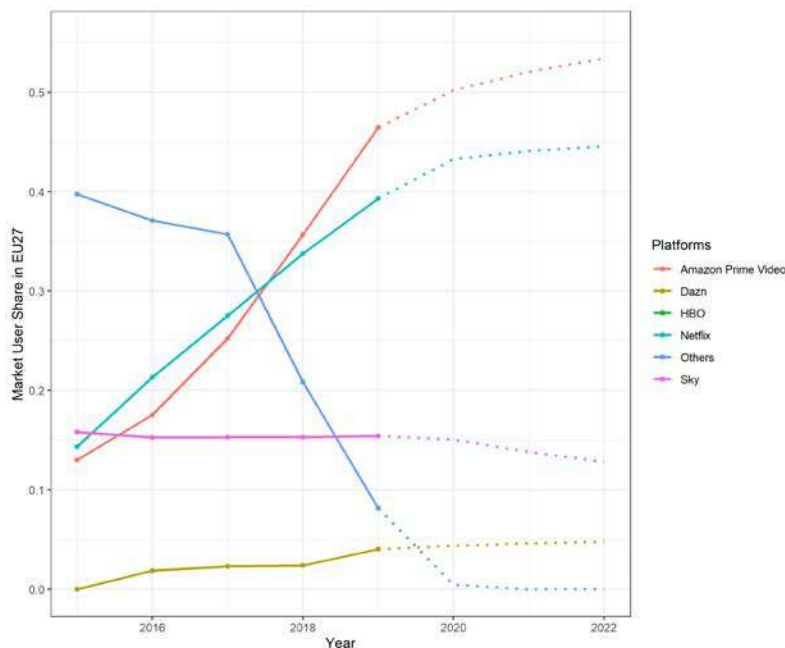
- **Market shares, overall number of users**
- **Combined market shares of services with a high degree of substitutability of the same company**

Facebook does not display the same degree of conglomeration as is present with the other large platforms. However, its services benefit from several factors that may support the maintenance of a gatekeeper position and deter multi-homing / switching with similar services. These include **network effects of a social media platform** and **extensive data including user-generated data**, which may make portability challenging as well as enabling the tailoring of services.

Video-Streaming

Cord-cutting has become a large scale phenomenon and video streaming service providers are fighting fiercely for the growing video streaming markets of the future. Based on user numbers of the video streaming market in the EU we extrapolate the market shares of the largest players.

Figure 57. Video streaming – Users



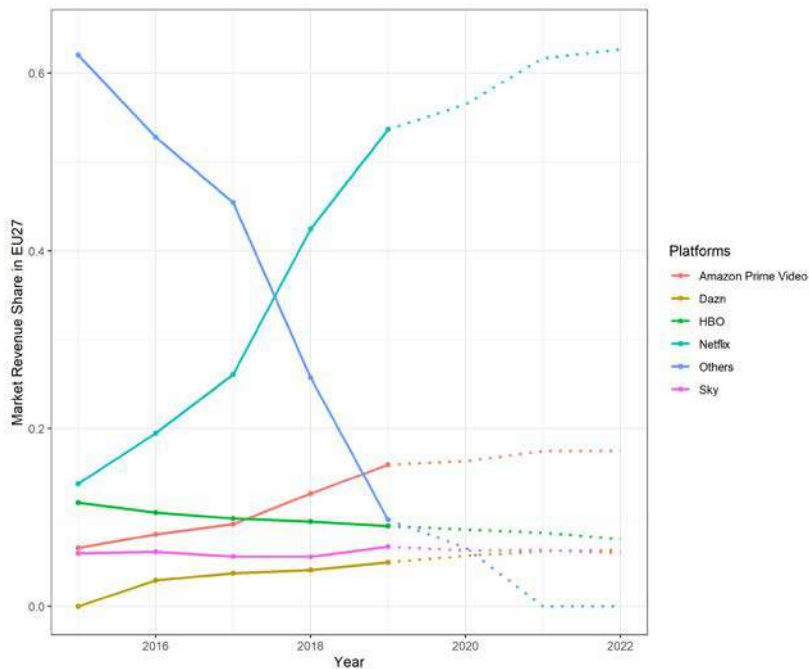
Despite several competitors being active in the European single market, Amazon Prime Video has surpassed Netflix in numbers of streaming video customers. Nevertheless, Netflix still retains the largest share of video streaming revenues in Europe. In contrast to single-purpose providers like Netflix, Amazon's Prime Video offer is included in its overall Prime Membership (bundling). Therefore, cross-subsidization is possible and overall revenues per user in the Amazon ecosystem play a far more important role to Amazon than establishing a profitable stand-alone streaming business like Netflix.

We do not argue that bundling and integrated services like Amazon Prime are inefficient or necessarily bad for consumers. However, efficient ecosystem decisions of large gatekeeping platforms like Amazon can have detrimental effects on single-purpose providers in the Internet value chain, and this seems to be evidenced by the fact that smaller streaming

providers (“other”) are losing market share and their market shares are forecasted to decline even further.

Conglomerate platforms may argue that if they are prevented from acting strongly in downstream markets, this could strengthen the position of single purpose platforms, which may themselves have the ability to dictate terms of service for business users. It is true that large video streaming services such as Netflix would most likely benefit from reduced competition from conglomerate gatekeeper platforms. However, the market for commercial content creation is primarily dominated by large corporations and publishers (e.g. Disney) that can also establish direct access to the market themselves. Even smaller content creators run their own websites or multi-home on different video streaming platforms to establish alternative revenue streams. Therefore, it is unlikely that any regulation of large gatekeeper platforms would fundamentally change the competitive landscape in the video streaming business area. Equally, potential direct entry by content providers may enable this business area to remain contestable.

Figure 58. Video streaming – Revenues



Analysis insight:

The market for streaming video has been successfully contested by large platform providers like Amazon that have gained a large share of the overall market in recent years. At the same time, smaller players are losing market share, reducing the overall variety of streaming service providers. Due to the low cost of the overall Prime membership (which also includes free next-day deliveries), revenues that are attributable to the video-streaming proportion of the overall Prime subscription are relatively low. Amazon could in principle cross-subsidize its Prime Video service for prime members from its retail and marketplace revenues from the e-commerce business area. There are thus risks arising from potential leverage. However, challenges to the contestability of this business area may be counteracted by potential entry by content providers

Relevant indicators for this business area therefore include:

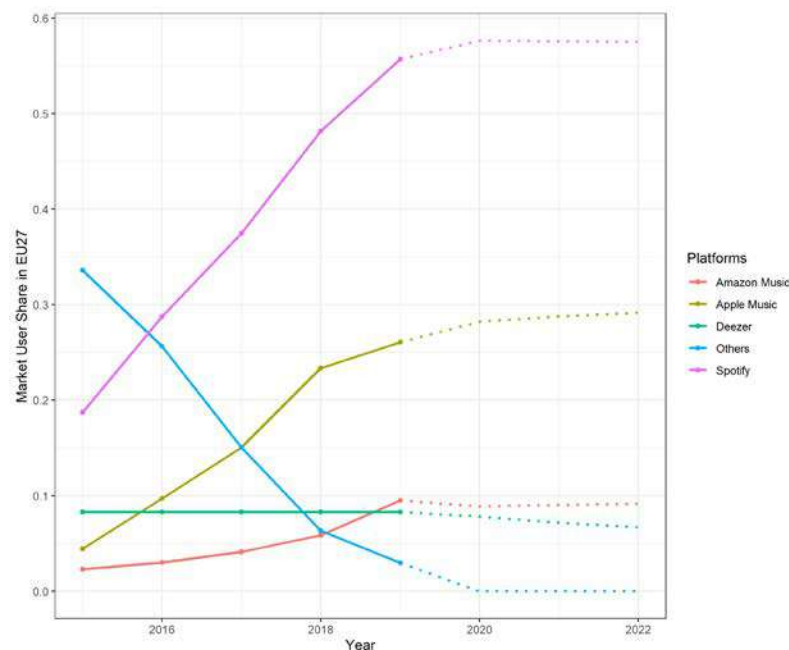
- **Market shares, overall number of users, ARPU in the core market (i.e. cross-subsidization potential)**

- **Dual-role (App store provider / Service provider on the marketplace)**
- **Control over an ecosystem (i.e. bundling potential, lock-in effects)**
- **Potential entry**

Audio-Streaming

The music industry has evolved from selling physical media, over digital files towards offering their content via streaming subscription services. In fact, music streaming has become a large scale phenomenon and stand-alone music streaming providers like Spotify are fighting fiercely to defend their market position against the integrated services offered by large gatekeeper platforms. Based on user numbers of the music streaming market in the EU we extrapolate the market shares of the largest players.

Figure 59. Audio streaming – Users

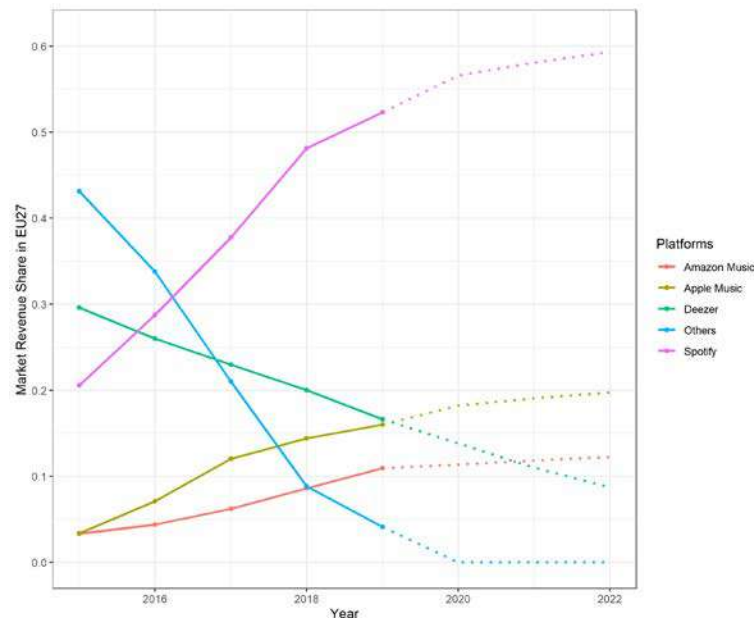


Despite several large gatekeeper platform music streaming services being active in the EU, Spotify, the most successful stand-alone provider of streaming music, has been able to expand its lead over its new competitors. Nevertheless, the music streaming services of Apple and Amazon are forecast to gain market share from smaller providers like Deezer, increasing the concentration in this market segment in the coming years. This conclusion is supported by the forecast of the revenues in the music streaming market, where Deezer and smaller competitors are expected to substantially lose shares to their competitors. Despite the fact that Spotify continues to be successful as a stand-alone service provider in the music streaming business areas, overall variety and competition in this business area is expected to decline in the foreseeable future.

The regulation of large conglomerate gatekeepers could even strengthen this effect by cementing the position of large single-purpose providers like Spotify. However, in contrast to e.g. the travel or transportation business area, trading partners of audio streaming service providers are rather large content publishers and not smaller individual businesses users. Therefore, it is unlikely that large digital distributors like Spotify would gain substantial bargaining power towards these players. Nevertheless, large audio streaming services like

Spotify would most likely benefit from action which reduced the capacity for gatekeeper platforms to leverage into this segment.

Figure 60. Audio streaming – Revenues



Analysis insight:

The market for music streaming has been successfully contested by large platform providers like Apple and Amazon that have gained a substantial share of the overall market in recent years. However, the most successful stand-alone streaming provider has been able to extend its lead over the services provided by large gatekeeper platforms. While Amazon is pursuing the same bundling strategy as in the video streaming business area for some years, Apple has only recently begun to bundle its music streaming service Apple Music with its other digital services. This strategy may prove more successful in gaining market position as Apple Music is tightly integrated into the interface of iOS and prominently advertised through the pre-installed music app. Potentially relevant indicators for this sector are:

- **Market shares, overall number of users, ARPU in the core market (i.e. cross-subsidization potential)**
- **Dual-role (App store provider / Service provider on the marketplace)Control over an ecosystem (i.e. bundling potential, lock-in effects)**

E-Commerce

The e-commerce business area in the EU is populated by several successful players (e.g. Amazon, E-Bay, Zalando, Otto, Cdiscount and others). However, there is a significant gap between the market shares of the larger alternative players and that of Amazon. Much may depend on the share taken by smaller players (“Others”) including the online brands of offline stores, which currently still maintain a large share of overall revenues in this market, but which are projected by Statista, to play a declining role in the coming years. According to Statista projections, from the selection of comparably larger players in this business area only Zalando and Amazon are forecast to gain user and revenue market shares in the foreseeable future.

Figure 61. E-Commerce – Users

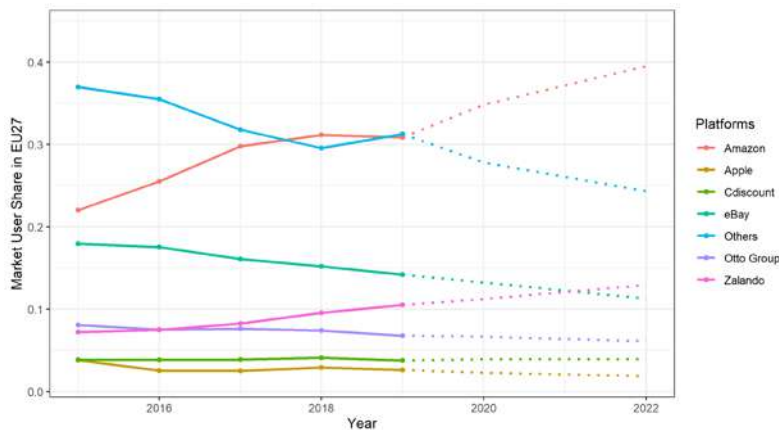
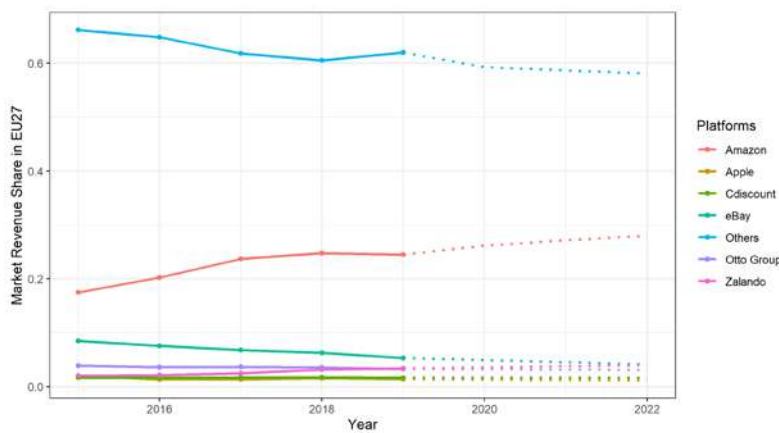


Figure 62. E-Commerce – Revenues



Analysis insight:

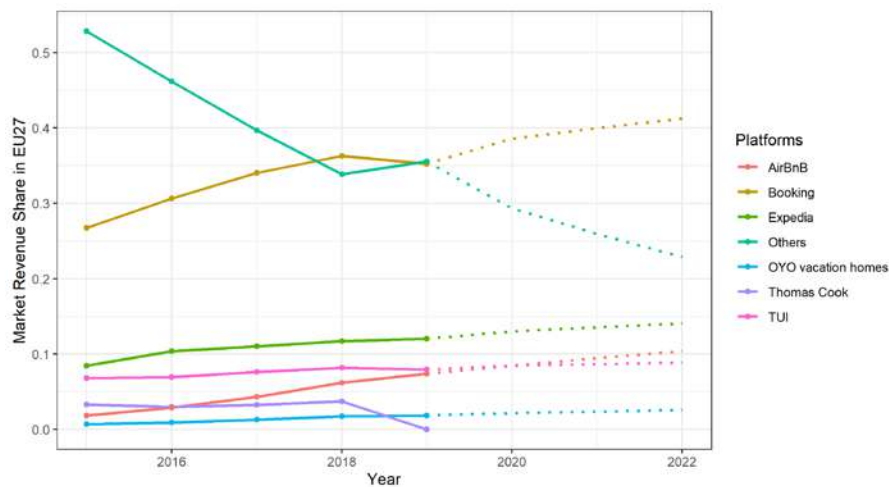
Amazon is by far the largest e-commerce platform operating in Europe. Available data and interviews with e-commerce merchants suggest that a significant number of merchants (and especially SMEs) are heavily reliant on Amazon and its fulfilment service. Amazon has also been investigated over unfair contract terms. Amazon faces a potential threat from other e-commerce retailers and the entry of off-line stores into e-retailing. However, it continues to play a significant role in the e-commerce segment and has gained traction in certain devices such as book-readers and streaming hardware, which could cement its position. With the exception of ratings and recommendations, switching barriers in this segment are low. However, Amazon benefits from:

- **Market shares, overall number of users, ARPU in the core market (i.e. cross-subsidization potential)**
- **Dual-role (App store provider / Service provider on the marketplace)**
- **Control over an ecosystem (i.e. bundling potential, lock-in effects)**

Travel / Booking

The travel and online booking business area in the EU is populated with numerous players that are in direct competition with each other. However, the variety of companies in this sector is relatively large. With AirBnB we have players that fall into the category “sharing economy” (i.e. C2C focus), meta search engines (e.g. Expedia) and online booking platforms with a strong B2C focus (e.g. booking.com).

Figure 63. Travel/Booking – Revenues



Reliable user numbers for this sector could not be obtained for this sector and are therefore omitted from the analysis. Our forecast of the revenue market shares in this business area reveals that the single-purpose platform booking.com is expected to increase its revenue market shares in the coming years in the EU.

Analysis insight:

Exact numbers of users using travel platforms are not available to derive reliable market trends and assess any impacts of network effects. However, it is evident that Booking.com captures the largest share of overall business area revenues and that it is growing faster than its competitors. Moreover, Booking.com has been implicated in investigations concerning unfair practices both regarding its business users (e.g. Most Favoured Nation clauses)³¹⁶ and consumers (e.g. regarding misleading ranking, high pressure sales practices).³¹⁷ Booking thus provides an example that even a single-purpose platform can engage in harmful or unfair business practices. It should be noted nonetheless that while it is not active in different business areas, Booking Holdings owns and operates several travel and booking platforms, including Priceline.com, Agoda.com, Kayak.com, Cheapflights, Rentalcars.com, Momondo, and OpenTable. Services that are not listed with a domain indicator are usually offered via unique country specific domains and are available in localised versions around the world including European countries. With that level of diversification in the travel and booking business area Booking Holdings covers many relevant sub-segments of its business area, which are primarily hotels, flights and rental cars. Moreover, the primary platform of Booking Holdings “booking.com”, which serves as the landing-page for most customers worldwide, as well as its other subsidiary platforms heavily rely on the same data base. In addition, Booking controls several entry points to overlapping sub-segments within the same business area, which might not be transparent to consumers.

Notwithstanding Booking.com’s strong position in this area, they may face a threat of competition from general search engine providers such as Google. Regulation of conglomerates such as Google which have an interest in expanding in the travel segment, could benefit single-purpose platform providers with a strong market position in a specific business area. Interventions which limit competition from conglomerate platforms could even cement the potential dependency and limited bargaining power of third-parties (and especially smaller providers such as hotel operators) vis a vis single-purpose platforms. Such

³¹⁶

https://www.researchgate.net/publication/333676317_Most_Favoured_Nation_Clauses_on_the_Online_Booking_Market

³¹⁷ <https://www.reuters.com/article/us-booking-hldg-hungary-idUSKCN22A3AZ>

potential effects may need to be considered in the context of the threshold analysis and application of any case by case remedies. However, a failure to tackle potential leverage could also expose single purpose platforms to unfair practices, whereby their market position is eroded through preferential treatment of a conglomerates own business rather than competition on the merits of its business model. However, despite potential competition from conglomerate platforms, single purpose platforms in the travel area might still be able to engage in unfair conduct. Indicators of this potential may include:

- **Market share**
- **Growth rate of market share compared to competitors (i.e. market tipping proxy)**
- **Number of dependent users**

Advertising

Sometimes the Internet economy is also referred to as the attention economy. Indeed, many online service providers offer their services for free to consumers (e.g. Facebook, Google). In the process, consumers reveal data about themselves, which allows the platform provider to tailor the ad-delivery to individual users (behavioural advertisements). Attention is an important factor for advertisement financed services, since more attention leads to more ad-impressions and more information about users leads to potentially higher click-through rates and higher conversion rates (i.e. consumers buying advertised products/services).

The online-advertising market is difficult to generalize and to operationalise. In the cases of Google and Facebook advertisement slots are auctioned off by considering e.g. untransparent quality indicators and information that is only available to the platform provider (i.e. Google Ad-Words auction, Facebook ad auction).

The process to deliver ads via Facebook is as follows³¹⁸:

- Advertisers chooses their daily budget
- Advertisers select what action they want to pay for (e.g. views, clicks etc.)
- Advertisers select their target audience by indicating e.g. demographics, interests, and relevant devices
- Facebook grades every potential ad's bid, estimates action rates by the audience, and automatically grades the ad quality
- Facebook uses these estimated action rates and the ad quality grade to determine ad relevance
- Facebook generates an ad's total value, based on bid, estimated action rate, and ad quality
- Facebook delivers the winning ad or the ad with the highest total value based on ad relevance to individual users

On a very high level we can provide the following average Facebook and Google advertising costs for different bidding models:

³¹⁸ Source: <https://www.webfx.com/social-media/how-much-does-facebook-advertising-cost.html>

Table 18. Average Facebook advertisement cost³¹⁹

Average Facebook advertisement cost	Bidding model
0,81 €	Cost-per-click (CPC)
6,02 €	Cost-per-thousand-impressions (CPM)
0,90 €	Cost-per-like (CPL)
4,58 €	Cost-per-download (CPA)

Table 19. Average Google advertisement cost³²⁰

Industry	Average CPC (Search Network)	Average CPC (Display Network)
Advocacy	1.27 €	0.55 €
Auto	2.19 €	0.52 €
B2B	2.96 €	0.70 €
Consumer Services	5.70 €	0.72 €
Dating and Personals	2.47 €	1.33 €
Ecommerce	1.03 €	0.40 €
Education	2.14 €	0.42 €
Employment Services	1.82 €	0.69 €
Finance and Insurance	3.06 €	0.77 €
Health and Medical	2.33 €	0.56 €
Home Goods	2.62 €	0.53 €
Industrial Services	2.28 €	0.48 €
Legal	6.01 €	0.64 €
Real Estate	2.11 €	0.67 €
Technology	3.38 €	0.45 €
Travel and Hospitality	1.36 €	0.39 €
Average	2.67 €	0.61 €

Ultimately, advertisement costs vary substantially between product or service category, target group and the characteristics of different sellers.

The following table shows for a specific European market the online advertising expenditure by industry for five years. As can be seen advertising expenditures vary substantially between different industries. However, average advertising expenditures are rising continuously over the last five years, although the year-on-year increase has declined from 12.7% (2016/17) to 8.9% (2019/20).

³¹⁹ <https://www.webfx.com/social-media/how-much-does-facebook-advertising-cost.html>

³²⁰ <https://www.webfx.com/blog/marketing/much-cost-advertise-google-adwords/>

Table 20. Ad Spending – Germany (Example)

Digital Ad Spending in Germany, by Industry, 2016-2020					
<i>billions of €</i>					
	2016	2017	2018	2019	2020
Retail	€1.16	€1.34	€1.50	€1.64	€1.79
Automotive	€0.74	€0.85	€0.95	€1.04	€1.13
Travel	€0.53	€0.61	€0.69	€0.74	€0.80
Financial services	€0.49	€0.55	€0.61	€0.68	€0.75
Healthcare & pharma	€0.32	€0.37	€0.41	€0.45	€0.50
CPG & consumer products	€0.26	€0.31	€0.32	€0.35	€0.38
Other	€1.78	€1.92	€2.15	€2.37	€2.59
Total	€5.27	€5.94	€6.63	€7.28	€7.93

Note: includes advertising that appears on desktop and laptop computers as well as mobile phones, tablets and other internet-connected devices, and includes all the various formats of advertising on those platforms; excludes SMS, MMS and P2P messaging-based advertising; converted at the exchange rate of US\$1=€URO.847471
 Source: eMarketer, July 2019

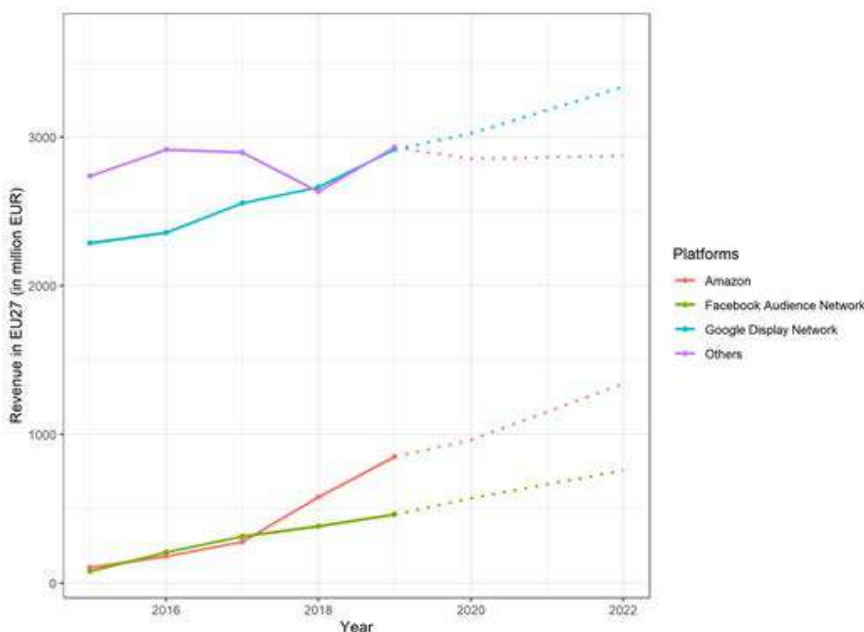
T10405 www.eMarketer.com

At a high-level the advertising market in general can be divided into three categories.

Display advertising

Display advertising refers to the method of advertising a product or service through e.g. images and videos on advertisement networks such as the Google Display Network and/or Facebook. Display advertisements are placed on relevant third-party websites. In this process the advertiser/marketer can choose the website they would like their ads to be on display. In contextual advertising the advertisement networks delivers ads on websites that have the same context as the advertisement (e.g. hiking gear on an outdoor activity website). The last category includes display ads that are delivered to consumers that have not yet completed the relevant conversion goal.

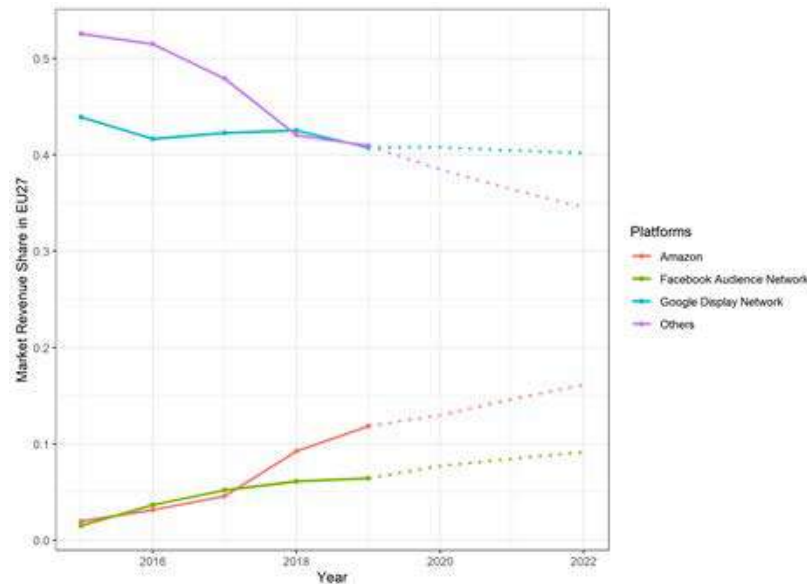
Figure 64. Display advertising – Revenues (absolute)



The market for display advertisements is expanding in the established segments of third-party display advertisements. Moreover, Amazon has established itself successfully in this segment by providing display advertisements on its own platform. Therefore, Amazon is rapidly increasing its share in the overall display advertising market. Despite the growth in

display advertisements, Amazon could increase its overall share and is forecasted to increase its share even further in the next years.

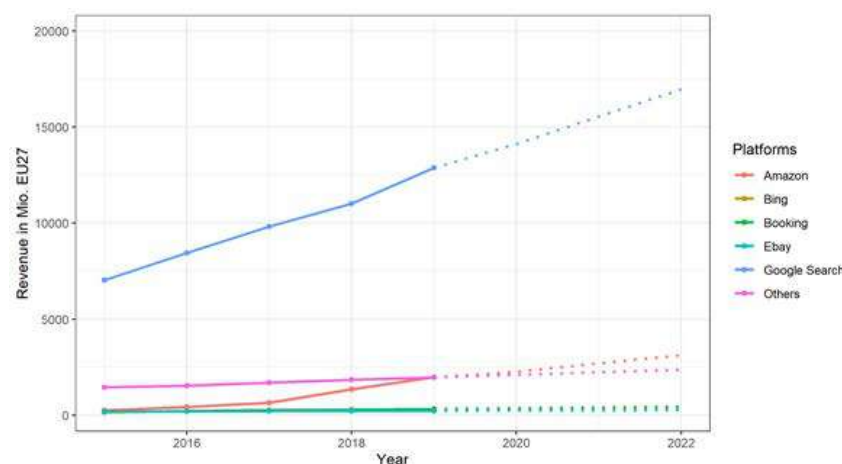
Figure 65. Display advertising – Revenues (shares)



Search advertising

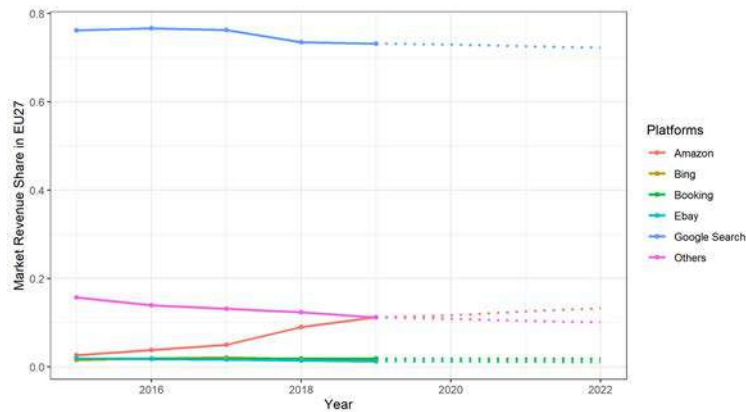
Advertisements in search engines appear next to organic search results. They are designed to match search terms entered by users. Before a purchase decision users often compare several alternatives online (e.g. travel, e-commerce). The relevance of the presented search advertisements to their buying interests influences the likelihood of consumers clicking on search ads instead of unpaid search results. Therefore, search advertisements can also reduce online users search costs.

Table 21. Search advertising – Revenues (absolute)



The search advertising market is dominated by Google due to its dominant position in the search engine market. Despite the fact that other general and single-purpose search engines are available, only Amazon is gaining market share due to the sponsored search business on its own platform.

Figure 66. Search advertising – Revenues (share)



Video advertising

Video advertising refers to advertising that occurs before, during and/or after a video stream on the internet. The advertising formats used in this case are pre-roll, mid-roll, and post-roll advertisements. The video advertising market is dominated by Google, which captures the largest share of overall revenues in this business area. Competitors like Twitch (Amazon) play only a minor role in this business area and do not surpass the aggregated market shares and revenues of the diverse group of other small market participants.

Figure 67. Video advertising – Revenues (absolute)

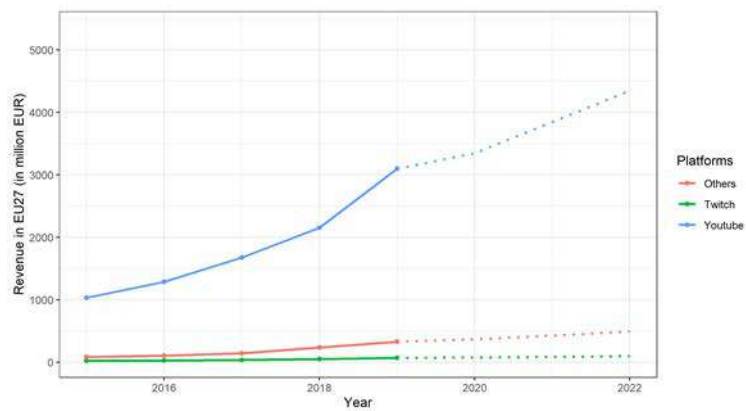
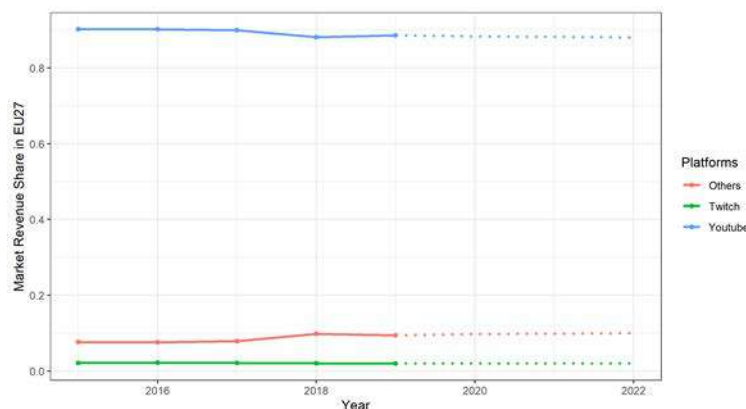


Figure 68. Video advertising – Revenues (shares)



Analysis insight:

The advertisement market is dominated by Google and Facebook. Facebook's advertisement revenues are only partially displayed in this section, as we show them in the social media business area analysis of this report. Google dominates the search and video advertisement portion of the overall online advertisement market, whereas Facebook and Amazon have become stronger competitors of Google in the display advertisement market. Furthermore, a multitude of small and medium players in the display advertisement market keep the share of "other" companies comparably high. In summary, we see strong concentration in the advertisement segments that are populated with large players in the individual underlying business areas. In the general market for display advertisements we observe more competition over time. However, the strongest individual competitors that emerged in that segment are both large gatekeeper platform providers themselves. Relevant candidates for indicators in this business area are:

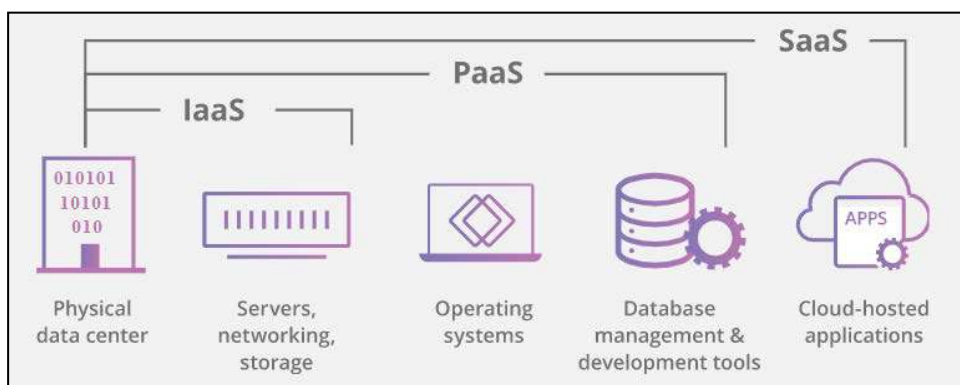
- **Market shares**
- **Overall number of users**
- **User engagement, usage frequency and time spend on core platform service**

SaaS

Originally, the cloud services market started with Infrastructure as a service (IaaS) where customers outsourced their infrastructure like servers and network storage. But the cloud market developed further into Platform as a Service (PaaS) and Software as a Service, (SaaS). The PaaS-model overlaps the IaaS model, so it includes not only the rental of the infrastructure but also all what is required to develop applications (operating system, database management and developer tools). SaaS is the most comprehensive service, where not only the infrastructure, operating systems and required tools are hosted and managed in the cloud by the SaaS provider but also the applications. See below figure

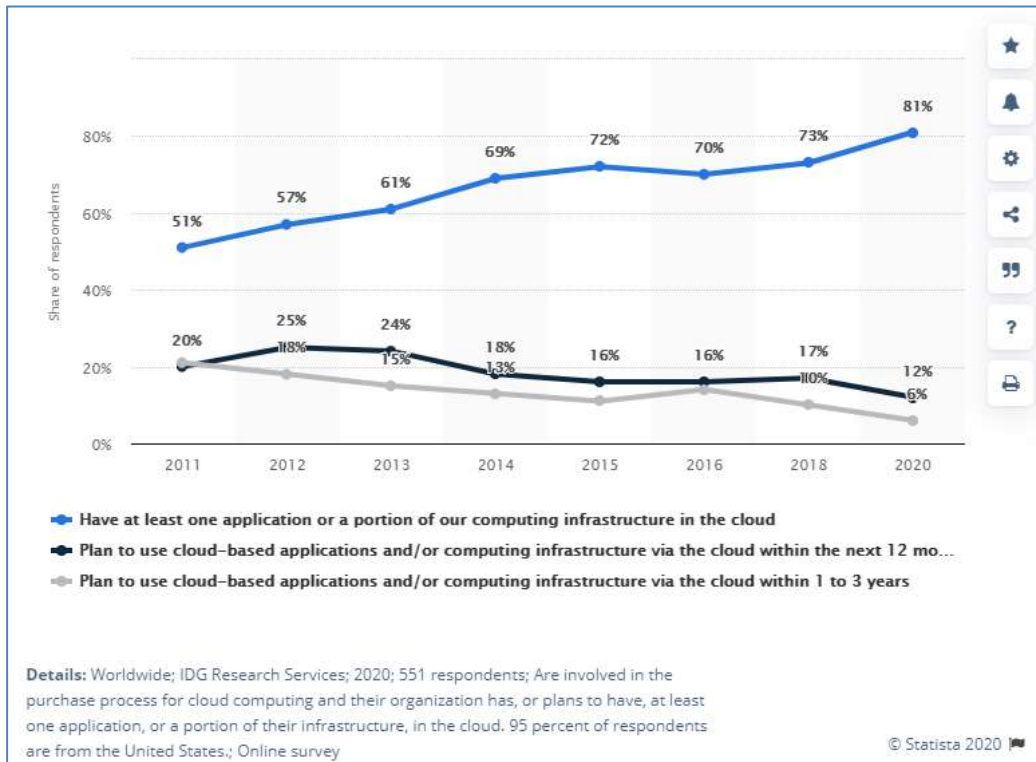
All cloud services have grown strongly in the last 10 years, but SaaS and PaaS cloud services make up roughly 2/3 of the total cloud market.

Figure 69. Different categories of cloud services



Source: Cloudflare.com

Figure 70. SaaS – Users



Exact

Numbers of users working with SaaS are not available. However, results from online surveys amongst companies indicate that currently 81% of companies use at least 1 application in the cloud and 12% more expect to do so in the coming year.

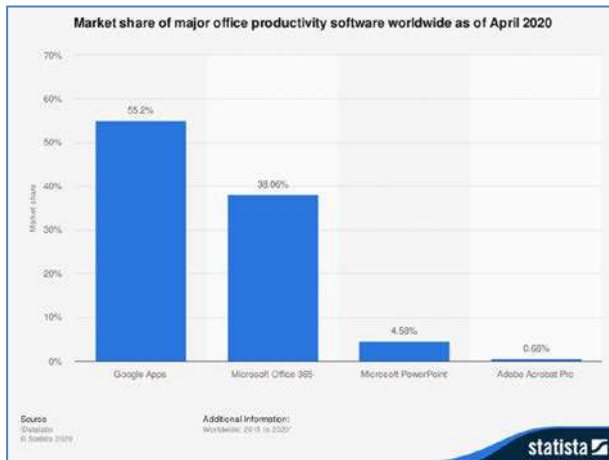
Amazon and more traditional IT companies like IBM are the largest players in the IaaS market. Microsoft only holds a market share of 5% in the IaaS market versus 25% for Amazon. However, Microsoft is leading in the largest part of the cloud market, the SaaS services and is also well positioned in the PaaS cloud market. Microsoft holds 16% market share in the SaaS market, followed by Salesforce (14%), IBM (4%) and Oracle (3%). From 2015 onwards, Microsoft's and Salesforce's market share have increased strongly in the SaaS cloud segment while IBM remained constant and Oracle declined slightly.³²¹

An important driver of this trend may be Microsoft's strong position in productivity software. Microsoft's market share in the cloud-based Office market was according to Gartner in 2019 around 88%.³²² Microsoft has made the conversion to SaaS and is offering now monthly subscription access fees instead of one-time licensing fees. If more and more companies convert to SaaS it can be expected that Microsoft will strengthen its position in the coming years.

³²¹ Statista 2019

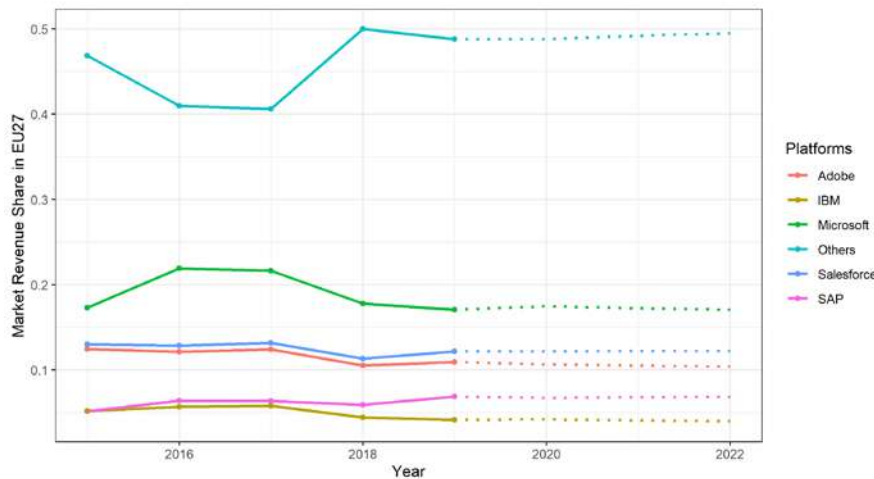
³²² Called the email and authoring market (formerly named the office suite market). See CIODIVE Article, 11 February 2020 by Samantha Ann Schwartz, <https://www.ciodive.com/news/Google-Microsoft-Office-collaboration/571740/>

Figure 71. SaaS – Office productivity



Despite the fact that smaller players in aggregate capture the largest share of the European SaaS business, Microsoft has the highest market share in the SaaS market.

Figure 72. SaaS – Revenues



Analysis insight:

We do not find evidence for a dominant position in the European SaaS market based on revenue market shares. Exact numbers of users working with SaaS are not available for individual platforms to derive reliable market trends. However, it becomes evident that Microsoft captures the largest share of overall business area revenues. Some business users and challengers in the provision of cloud computing services have expressed concerns that Microsoft’s control over its proprietary productivity software, the Office Suite, could enable Microsoft to gain leverage in the provision of cloud services. Bundling of Office with Teams in the cloud-based Office 365 solution has also prompted complaints from rival Slack about leverage into the provision of conferencing and collaboration tools, as noted in a case study for this report. Although Microsoft does not currently have a strong market position in SaaS, there is a potential concern around leverage from a neighbouring sector. Potential indicators that could be relevant include:

- Strong market position in a neighbouring sector
- Bundling and tying practices as part of a conglomerate strategy

Cloud services (PAS/IAS)

The Infrastructure as a service (IaaS) market with infrastructure hosting developed into Platform as a Service (PaaS) with companies' database management and developer tools and eventually their applications (Software as a Service, SaaS).

Worldwide, the largest cloud providers as of Q1 2020 were Amazon (32%), Microsoft (18%) and Google (8%). Amazon's (AWS) market share has been stable but slowly declining for the last 2 quarters with Microsoft and Google steadily increasing over the years. 42% of the market is still held by other parties.

Europe features the same top 3 providers (AWS, Microsoft, Google), as well as national players which include the telecom incumbents (DT, Orange, KPN, Swisscom) and specialized firms such as OVH in France and Rackspace in the UK.

In the IaaS market, AWS (25%) and more traditional IT companies such as IBM are the largest players. Microsoft only holds a market share of 5% in the IaaS market. However, Microsoft is leading in the largest segment of the cloud market, for PaaS/ SaaS

Worldwide, cloud services have grown strongly in the last 10 years (+20% or more) with SaaS and PaaS cloud services making up roughly 2/3 of the total cloud market and the SaaS segment being the largest segment with 50-60%. While much smaller than the US market, European cloud revenues are growing more rapidly; currently 38% per year (including IaaS, PaaS and hosted private cloud services).

The expectation is that the IaaS market will develop further but that there will be a stronger shift to the PaaS/SaaS market, which could increase Microsoft's position versus Amazon (AWS).

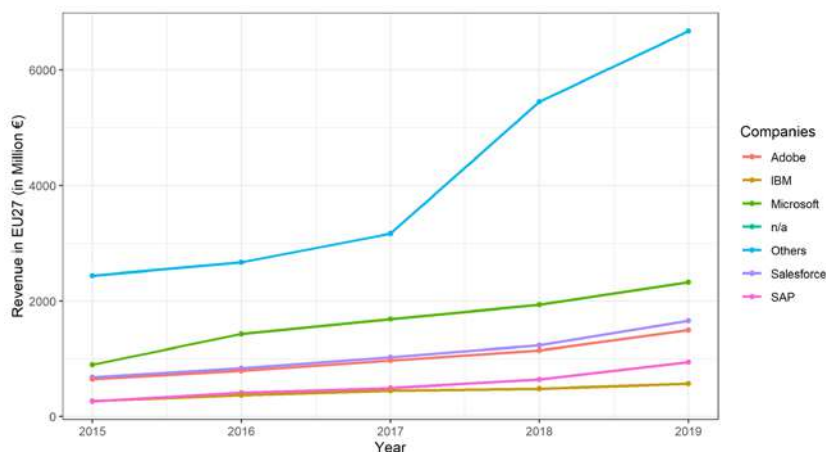
Table 22. Cloud market in the EU

Rank	Europe	UK	Germany	France	Netherlands	Rest of Europe*
1	AWS	AWS	AWS	AWS	AWS	AWS
2	Microsoft Azure	Microsoft Azure	Microsoft Azure	Microsoft Azure	Microsoft Azure	Microsoft Azure
3	Google Cloud	Google Cloud	Google Cloud	OVH	Google Cloud	Google Cloud
4	IBM	IBM	Deutsche Telekom	Orange	KPN	IBM
5	Salesforce	Rackspace	IBM	Google Cloud	IBM	Salesforce
6	Deutsche Telekom	Salesforce	Oracle	IBM	Oracle	Swisscom

Note: * Rest of Europe refers to the European countries excluding UK, DE, FR and NL.

Source: Synergy Research Group

Figure 73. Cloud – Revenues



Analysis insight:

Amazon, Microsoft and Google have the largest shares of the IaaS and PaaS cloud market in the EU. For these companies, significant investments in physical computing infrastructure (e.g. data centres) are necessary for their core business. Therefore, these companies benefit from high returns to scale, which enables them to sustain their position in the overall cloud market. This business area appears contestable, but could consolidate in the coming years. Relevant indicators include:

- **Market shares**
- **Returns to scale (e.g. investments in infrastructure)**

Implications of multi-market activity

As discussed in section ii, conglomeration can be one of the factors that could enable the maintenance of a gatekeeper position and reinforcing its effects.

Multi-market activity allows platforms to leverage gatekeeping power in demand-related markets and to coordinate data collection efforts across several levels of the Internet value chain to the benefit of their overall ecosystem (i.e. conglomerate business activities). Furthermore, multi-market activity allows platforms to trade-off short-term benefits in one area of business to long-term platform ecosystem benefits. In other words, platforms can e.g. make sacrifices along several business areas to establish a foothold in new business areas, with a focus on overall long-term ecosystem revenues, which is especially relevant in “winner-takes-most” markets.

In contrast, although they may still have the ability to influence contractual conditions within their business segment, larger players which specialize on providing “one-purpose” services are not able to cross-subsidize revenues among different services, collect data on their consumers in other contexts, or benefit from data-driven network effects spurring services (i.e. data collection tent pole technologies) that are not essential to their core value proposition. Furthermore, specialized services depend solely on the economic development of a single business area, which makes them more prone to market volatility and industry specific exogenous shocks.

Multi-market activity can include “**vertical integration**” by a digital platform provider. However, the concept of multi-market activity and multi-market contact between companies is more general than the concept of vertical integration. Large gatekeeping platforms do not have to rely on vertical integration, but can leverage their financial power to vertically expand in new business areas as well.

The result of vertical integration and expansion in multiple business areas is an ecosystem provider that is providing a conglomerate of services which are interwoven across several business areas.

Single-purpose service providers interact with large gatekeeping platforms only in specific areas of business (e.g. travel / booking, content e.g. music, video). In contrast, large gatekeeping platforms that are active in several business areas also have contact with other large gatekeeping platforms in several areas of business (e.g. browser, search, app stores, devices, e-commerce).

Multi-market contact has been found to dampen competition between companies.³²³

The effects of multi-market contact can best be explained by an illustrative example in the digital economy:

Apple and Amazon are companies whose core business substantially differs from each other. While Amazon has a large e-commerce platform and provides logistics services around the globe, Apple provides mobile consumer electronics with its own integrated operating system and connected services. However, Amazon also offers a video subscription service (Amazon Prime Video) and relies on Apple's AppStore to provide its services to Apple customers on TVs. On the other hand, Apple would benefit from Amazon's reach in the e-commerce market to sell its devices online outside of its own online store.

Before Apple launched its own video streaming service (Apple TV+), Amazon Prime Video was an important service to boost the sales of Apples newly launched Apple TV hardware based on ARM-chip technology in 2015. However, initially Amazon (in contrast to Netflix) was not willing to offer its services on the Apple TV platform for two reasons: First, it considered Apple's AppStore commission fees of 30% to be too high. Second, Amazon offers its own stand-alone streaming device called "Fire-TV" to provide direct access to its streaming services. At that time no Apple TV devices were sold via Amazon's e-commerce platform.

In 2016 Apple agreed with Amazon on a special deal to include Amazon's services on its platform by lowering the AppStore commission fee for Amazon to 15%.³²⁴ Furthermore, Apple presumably allowed Amazon to port its browser-based Prime Video application³²⁵ to the Apple TV, which was in direct violation of app developer guidelines for the Apple TV platform at that time. Both factors (lower fees / low development effort) finally convinced Amazon to offer its streaming service on the Apple TV platform, which early adopters of Apple TV expected to launch briefly after the reveal of the new hardware.

In 2018 Apple's negotiations with Amazon to include its products in the retail catalogue of the e-commerce giant reached a conclusion. Today, Apple products are sold via Amazon with one notable exception. Amazon does not offer the HomePod, Apple's answer to Amazons successful smart speaker line-up. However, despite the fact that Amazon also offers its own streaming set-top box (Fire TV), Amazon sells Apple's Apple TV hardware in its online-store. In contrast to the Apple TV that comes with access to the AppStore where Amazon managed to close a special deal, the HomePod is (currently) a closed system that only integrates with Apple Music and its own voice assistant (Siri).

Therefore, one can conclude that multi-market contact between large platform providers allows for agreements between these companies that span across different business areas to the mutual benefit of these companies. In contrast, even larger single-purpose providers cannot leverage gatekeeping power across different business areas and may find their

³²³ Choi, J. P., & Gerlach, H. (2013). Multi-Market Collusion with Demand Linkages and Antitrust Enforcement. *The Journal of Industrial Economics*, 61(4), 987-1022.

³²⁴ <https://www.bloomberg.com/news/articles/2020-07-29/apple-considered-taking-40-cut-from-subscriptions-emails-show?sref=ExbtjcSG>

³²⁵ <https://macdailynews.com/2017/12/07/amazon-prime-video-seems-like-a-quickie-port-for-apple-tv/>

bargaining power even further reduced if the large platform provider that is active in several business areas offers a competing service to their core business.

In summary, **multi-market activity can facilitate collusion between large platform providers with multi-market contact and increase self-preferencing towards single-purpose service providers.**

On the one hand, this might be seen as positive for choice and innovation, if it implies that large platform providers with multi-market presence could enter each others' core markets and compete with each other.

However, mutually beneficial arrangements between large multi-market platforms could have the effect of reinforcing and perpetuating the dominant position of the small group of platforms concerned, and limiting the potential for entry by potentially innovative smaller players. It is also unclear from current experience that the large multi-market platforms would seek to aggressively enter and compete in the core business areas of other leading platforms, as this could lead to retaliatory conduct and a reduction in the ability to set gatekeeping-level tariffs for access and/or advertising.

Thus, although competition in new segments from conglomerate players is welcome, it is important in preserving contestable markets and innovation, that conglomerate platforms contest new markets on the basis of the merits of the service they are offering and do not engage in practices which could confer an unfair advantage over other established single purpose platforms and potential entrants.

At the same time, while recognising that there is a risk to single purpose platforms from conglomerates using preferential marketing strategies, it is also important to note that platforms which do not engage in multi-market activity could also themselves impose unfair terms on business users, which may have harmful or even exclusionary effects. Moreover, the threat of single purpose gatekeepers entering downstream markets through acquisition or organic growth remains a risk for businesses which may be dependent on them. Thus, it cannot be excluded that single purpose platforms might also be subject to regulatory controls, if they meet the relevant threshold criteria.

iv. Conclusion on appropriate threshold to identify gatekeepers susceptible to ex ante regulation

Based on our assessment of the principles which underlie gatekeeper power alongside a practical analysis of quantitative indicators which could support the designation process, we conclude that:

The principles for designating gatekeeper platforms should be based on three criteria, namely:

1. size and importance to the single market;
2. ability to engender dependency amongst business users and/or end-users; and
3. the enduring nature of the gatekeeper power

Assessment against these criteria is best conducted on the basis of a mixture of quantitative and qualitative criteria

A gatekeeper assessment can be made at company level, but in order to determine where regulatory obligations should be applied, it is also necessary to apply the assessment to the core business areas (or platform services) operated by the platform concerned. Such business areas could be listed in the legislation itself, based on an analysis of platform services which are currently subject to challenges as a result of gatekeeper practices, or where there is a risk that problems could arise in the short to medium term. Examples

include Operating Systems, app stores, search, social media, advertising and cloud computing.

In the following table, we show some examples of indicators that could potentially be used to assess gatekeeper power in the context of digital platforms. Quantitative indicators have been based on a cluster analysis, while qualitative indicators are derived from the theoretical analysis, as well as assessments of the potential drivers of problems in specific business areas. This list is not definitive or exhaustive and we note that further qualitative factors may be relevant in determining whether platforms meet the 3 overarching criteria to determine “gatekeeper power”, as shown in Table 14.

Company Level	Quantitative	Qualitative (Indication)
	<p>Large platform: Threshold to be determined based on number of users, number of countries of operation</p> <p>Gatekeeper (Control of Bottleneck): Market share in core business area (indicative value >61%)</p> <p>Enduring gatekeeper</p> <ul style="list-style-type: none"> - Control over innovation Free Cash Flow (indicative value > 1,7 x sample (market average) and/or - Conglomeration: Aggregated market share in segments where present (indicative value >83%) (or similar analysis based on market ranking scores) <p>Presence in multiple business segments (indicative value = more than 5)</p>	<p>Gatekeeper</p> <p>Economic dependency</p> <p>Multihoming in business area (e.g. interview, survey data)</p> <p>Switching Consumer focus group, consumer survey data</p> <p>Enduring gatekeeper (Control over innovation)</p> <p>Control over strategic data</p> <p>Acquisitions practices</p> <p>Conglomeration facilitating bundling of services, entry into downstream and upstream markets and cross-market usage of data</p>

When an assessment of available company data was conducted based on the above quantitative indicators, a core set of companies were found to meet the criteria for gatekeeper platforms, namely Amazon, Apple, Google, Microsoft and Facebook.

An analysis at the level of specific platform services including some qualitative considerations, also highlights that, while the largest platforms have a strong position in several areas of the value chain, single purpose platforms could play a powerful role in specific sectors such as travel and hotel bookings. It also cannot be excluded that single purpose platforms in other areas such as music, or platforms in the sharing economy e.g. relating to ride-hailing or accommodation sharing may be identified as gatekeepers in the coming years. However, any such designation may require a more in-depth analysis by a regulatory authority. We also note that there are number of business areas in which no clear leaders at the moment, although in some cases, there may be a risk of leverage from large platforms operating in neighbouring markets.

It should be emphasised that the analysis is purely illustrative, and should not be taken as identifying which platforms might be identified as gatekeepers in the context of the DMA. However, it may provide an indication of the type of analysis that could be conducted on the

basis of quantitative indicators, and the more qualitative approach that could be pursued to identify gatekeepers which do not meet all quantitative criteria.

b. Regulatory measures

In this section, we consider which remedies may be relevant to address problems associated with gatekeeper platforms, and what would be the most suitable mechanism to implement these remedies.

i. Potentially relevant remedies

Annex 4 includes 10 case studies which describe abusive practices (from the perspective of competition law) as well as potentially harmful practices (indicated through interviews or pending cases), which have been pursued by major platforms in the fields of operating systems and app stores, search, social media, travel and e-commerce. The following table summarises for the five largest companies where harms have been found or are under investigation, the actual or alleged practices, potential resulting harm and the range of ex ante remedies which might be relevant in addressing the identified problem.

It should be noted that, based on the analysis in the previous section, it seems likely that these companies would be found to meet the threshold for gatekeeper power if the threshold is defined on the basis of the criteria proposed in this study. However, the conclusion on large gatekeeper status would be subject to analysis by and designation by the regulatory authority, and it also cannot be excluded that other platforms might be found to meet the threshold, today or in the future and depending on how the threshold is defined.³²⁶ Thus, these companies should be assumed to represent a sample of companies which may be likely to meet the threshold for intervention. It is also important to emphasise that the remedies described are intended to provide a spectrum of possible solutions that may be relevant to address the problems identified in each case if the companies are found to meet the gatekeeper threshold and regulation is deemed necessary, rather than to indicate that specific solutions *should* be imposed in the cases concerned.

Nonetheless, we can see by following the logic from the problem to the cause of the problem to the potential range of solutions that might be needed that there are a number of specific issues which may be relevant to cover in legislation providing for ex ante regulation of gatekeeper platforms. These are:

- Self-preferencing
- Tying and bundling
- Data-related practices: Use of third-party data for competitive gain, Data portability, Data sharing Unreasonable denial of access
- Unfair terms and conditions, including price
- Interoperability

In turn, *transparency* is a critical factor that would be needed to detect harmful behaviours, underpin obligations and assess whether enforcement has been effective.

³²⁶ Specifically, we propose to base the designation of a “large gatekeeper” on at least three criteria including “Size and cross-border presence”, “the degree to which the gatekeeper is in a position which results in “dependency”, and the potential for the gatekeeper to maintain this position. “Conglomeration” could be considered as a factor which may (where present), serve to support a gatekeeper’s potential to maintain its position.

Category	Platform	Characteristics enabling exercise of large gatekeeper power	Identified or alleged Behaviours	Potential harms	Range of relevant remedies
Devices / OS / App store	Apple	Large addressable retail market / high share in mobile device and associated OS, proprietary standards, control over functionalities, pre-loading and positioning, access. Impossibility for users to switch /use alternative app store once device purchased, extensive access to data including third party data, Vertical integration, bundling, single sign-on functionality, part of ecosystem	Restricting access, high wholesale charges, prohibition on advertisements for external subscriptions, restrictions on use of functionalities such as Apple pay, pre-loading / discrimination favouring own-brand applications, entry into downstream markets e.g. music (potentially benefiting from third party data), limited information provision on app providers' subscribers	Limits on choice and innovation, higher prices	Offer menu for alternative app stores, access to functionality, prohibition on restrictions from advertising alternative subscription options, regulation of prices, terms and conditions on app store, prohibition on self-preferencing, prohibition on use of data related to third parties to support own product development / stronger ND requirements e.g. Chinese walls, Equivalence of Input, requirement to provide data to third party apps about their subscribers

Category	Platform	Characteristics enabling exercise of large gatekeeper power	Identified or alleged Behaviours	Potential harms	Range of relevant remedies
E-commerce	Amazon	Large addressable market / high share of e-commerce transactions, control over positioning, access and associated terms, switching and/or multi-homing possible, but barriers exist (for consumers - ratings / recommendations, for business users - integration on platform / ratings), extensive access to data including third party data, Vertical integration, bundling, part of ecosystem	Unfair terms and conditions, high wholesale charges, entry into downstream markets (potentially benefiting from third party data), tying with neighbouring markets (video) with potential cross-subsidisation	Higher retail prices and/or reduced scope for investment by dependent users, potential for reduced choice over time in markets subject to vertical leverage or tying	Regulation or dispute settlement in relation to terms and conditions, wholesale prices. Prohibition on use of data related to third parties to support own product development / stronger ND requirements e.g. Chinese walls, EoI. Prohibition on unjustified tying / bundling and / or cross-subsidisation between core market and other markets. Access to data for consumers and dependent users / standardised data formats to support portability
Operating System / Cloud / productivity services	Microsoft	Dominant share of users in productivity software, OS on PCs, proprietary standards, control over functionality, positioning, pre-loading on PC OS. High switching barriers (stemming from storage	Anti-competitive tying of dominant PC operating software with Windows Media and Internet explorer. Bundling of cloud services with dominant office suite. Bundling of office/cloud services with online	Restricted choice in services tied to dominant platforms. Switching challenges. Potential for excessive pricing and limited innovation	Transparency over APIs, prohibition on unjustified tying / bundling and / or cross-subsidisation between core market and other markets. Standardised formats and

Category	Platform	Characteristics enabling exercise of large gatekeeper power	Identified or alleged Behaviours	Potential harms	Range of relevant remedies
		of user documents, dominance of proprietary standards), Vertical integration, bundling, part of ecosystem	collaboration software Teams. Potential cross-subsidies		processes to support data portability
Operating System / browser / search / app store / advertising	Google	Large number of users / high shares in device platforms / search / advertising. Similar capabilities on OS Android as available to Apple i.e. preloading, preferencing, restrictions on app store. Control over APIs. Control over positioning on search, highlighted search results and algorithms, approval of advertisements. Depth of data., Vertical integration, bundling, single sign-on functionality, part of ecosystem	Leverage from search into shopping, leverage from Android OS to support Chrome browser and Google search, auctions to appear on search engine list	Potentially excessive advertising / placement charges, restrictions on choice and innovation (potential to affect scope for entry of competing browsers, potential to restrict scope for entry and competition by downstream providers in diverse fields (e-commerce, mapping etc), potential for abuse of third-party data	Transparency over APIs, prohibition on unjustified tying / bundling and / or cross-subsidisation between core market and other markets. Prohibition on use of third-party data to inform own business strategy. Non-discrimination in placement, terms and conditions on pre-loading, app store, search, advertising (with potential for price control if necessary). Potentially stronger ND measures. Requirement to provide data held about end-users and business-users

Category	Platform	Characteristics enabling exercise of large gatekeeper power	Identified or alleged Behaviours	Potential harms	Range of relevant remedies
					(including advertisers) on request
Social media / advertising	Facebook	Large number of subscribers / high shares in social media and advertising. Network effects in this field. Depth of data. High barriers to end-user switching (due to storage and depth of personal data), Vertical integration, bundling, single sign-on functionality, part of ecosystem	Leverage into messaging, other services. Abuse of personal data, including data collection on third party sites.	Potentially excessive advertising / placement charges, restrictions on choice and innovation, resulting from barriers to the development of competing platforms, breaches of privacy.	Prohibition on unjustified tying and bundling. Prohibition on use of consumer data beyond core service provided. Standardised formats and processes to support data portability

In addition to conducts that have been found to be anti-competitive when applied by the largest conglomerate gatekeepers, competition and consumer protection authorities have taken action in relation to the conduct of major single purpose gatekeepers in sectors such as hospitality, and a number of further, often contractual issues have been raised in the course of interviews conducted for this study, which could in principle apply to other sectors.³²⁷

In the following table, we list these practices, alongside the harmful practices highlighted in the case studies.

With a view to identifying the most appropriate legislative solution, we consider to what degree each of the practices are:

- Sufficiently specific that they could be cited in legislation without the need for further clarification as to their meaning
- Self-executing, or would require supplementary implementation/enforcement measures
- Per se harmful, when performed by a gatekeeper platform (or whether the effects may depend on the circumstances and would therefore require analysis by the regulatory authority)

³²⁷ For example, exclusivity clauses have been cited as inhibiting entry in segments of the “sharing economy” such as ride-hailing

Issue	Specific problems reported	Specificity	Requirement for supplementary implementation / interpretation	Under which conditions is conduct harmful?
Unfair contract terms	Linking access or related services to unrelated conditions e.g. "investment", use of single sign-on	High	No	Per se
	Anti-steering clauses	High	No	Per se
	Requirement for price alignment	High	No	Per se
	Exclusive agreements with service providers	High	Yes	Where they impede switching to alternative providers
Lack of access to or misuse of data, barriers to data portability	Customer data not passed on or only with delay	High	Some (defn of data, data sharing mechanism)	Per se
	Use of third party data for competitive advantage	High	Some (for clarity in interpretation / implementation mechanism)	Per se
	Proprietary standards for customer data, product descriptions, packaging etc	Medium	Yes (required minimum list)	Per se problematic for "standard" fields, but not data fields which may involve a specific innovation

Issue	Specific problems reported	Specificity	Requirement for supplementary implementation / interpretation	Under which conditions is conduct harmful?
	Data insufficiently complete to enable portability	Low	Yes	Per se
	Lack of access to data which would be essential for contestability	Low	Yes	Depends on effects
Self-preferencing	Self-preferencing in ranking	High	No (if clearly specified), but monitoring needed	Per se
	Pre-loading on OS	High	Yes	If has exclusionary effect wrt other competing apps
	Steering e.g. towards an application, start screen	High	Yes	If has exclusionary effect wrt other competing apps
Barriers to access and interoperability	Lack of access to core services, or access only on unfair terms or conditions of prices	Low	Yes	Where impedes third party innovation
	Lack of interoperability	Low	Yes	Where impedes third party innovation
	Lack of access to technical functionalities	Low	Yes	Where impedes third party innovation

Issue	Specific problems reported	Specificity	Requirement for supplementary implementation / interpretation	Under which conditions is conduct harmful?
Bundling, tying and cross-subsidisation	Mandatory bundling or steering towards own-brand complementary products	Low	Yes	If, harmful to potential alternative platforms / app providers
	Bundled add-ons priced or offered in a manner which cannot be viably replicated	Low	Yes	If, harmful to potential alternative platforms / app providers

Based on this analysis, it is possible to group harmful practices into those which largely could be addressed through a per se blacklist (due to their specificity and potential for self-execution), vs those which may have to be outlined in more general terms and interpreted, vs those which can be defined in legislation, but which would require an implementing step.

A first noteworthy point is that there are a number of “unfair contract” practices, which might be suitable for per se blacklists and which appear relevant to a range of gatekeeper platforms in different sectors. For example;

- Linking access conditions to unrelated requirements could be relevant to a diverse range of platforms, ranging from e-commerce platforms where allegations have been made concerning requirements for “investments” as a condition of maintaining display conditions to circumstances where a conglomerate platform makes access or the purchase of advertising conditional on the deployment of its single sign-on service
- Misuse of third party data for competitive advantage could be relevant to all digital platforms where a gatekeeper platform has access to data from business users or application providers and is offering or seeking to offer its own downstream services
- Anti-steering clauses and MFN clauses have been exploited in the context of contracts for app stores as well as e-commerce and travel platforms.
- Self-preferencing in rankings has been identified as a problem in the context of search as well as e-commerce, and might also be application in other settings in cases where the platform is vertically integrated
- Issues concerning data portability and ensuring access to customer data could also be laid down in legislation and should in principle apply to all gatekeepers, but would need to be further elaborated.

Other self-preferencing practices, beyond those related to rankings, are likely to be insufficiently specific to allow for self-executing prohibitions or to address in the absence of implementing measures. However, self-preferencing (in a wide sense), bundling and cross-subsidisation which have an exclusionary effect could also in principle be prohibited under the terms of the legislation, while the interpretation and application of these measures could be elaborated in detail in case specific measures.

In addition to the practices described above, which might be susceptible either to specific per se prohibitions or more general prohibitions (“greylists”), there are a number of *obligations* which may be appropriate to address certain problems, but would require detailed examination e.g. to assess proportionality, costs and benefits, as well as ongoing measures to ensure effective implementation and enforcement. These are likely to be capable of being settled only through case by case remedies. Such obligations include price control, and specific obligations concerning access to platforms, access to APIs and associated transparency requirements and interconnection and interoperability obligations.

ii. Potential formulations for the DMA

Blacklist: prohibitions which are self-executing

Blacklists for specific contractual practices under the DMA could be based around the specific problems identified and described in detail. This would be a similar approach to that taken in the Code of Conduct for Computerised Reservation Systems. For example, as an example of the specificity of the provisions, CRSs are:

- prohibited from including contractual terms which are unfair or unjustified, or have no connection with the participation in a CRS, or the use of alternative CRSs;

- obliged to load and process data provided by participating carriers with equal care and timeliness;
- Another example of specific per se blacklisted practices comes from French legislation, concerning unfair business practices which provides that;
- Abrupt termination of established contractual relations" is per se unlawful
- It is illegal to require contractual advantages that do not correspond to any consideration provided by the other side, or which are manifestly disproportionate to that consideration.
- Automatic most-favored-nation clauses are per se unlawful, as are clauses requiring retroactive application of more favorable terms.

Greylist: more general prohibition requiring a case-by-case assessment

Reliance on blacklists alone risks a lack of flexibility in addressing practices that are identified after the adoption of the legislation. Thus, it could be advisable alongside blacklists, to **introduce “greylists” which are phrased as prohibitions, but which provide a more principles-based description of potentially unfair or harmful practices**, which may require a judgement call.

Examples of provisions that could provide a template for the preparation of “greylists” in the DSA (especially regarding provisions concerning unfair contracts) include provisions aimed at addressing unfair contractual conditions for consumers i.e. the Unfair Contract Terms Directive (UCTD) and the Unfair Commercial Practice Directive (UCPD).

Article 3(1) of the Unfair Contract Terms Directive (UCTD) defines *B2C unfair term* as follows:

a contractual term which has not been individually negotiated shall be regarded as unfair if, contrary to the requirement of good faith, it causes a significant imbalance in the parties’ rights and obligations arising under the contract, to the detriment of the consumer.

Article 5(2) of the Unfair Commercial Practice Directive (UCPD) defines a *B2C unfair practice* when:

(a) it is contrary to the requirements of professional diligence,¹ and

(b) it materially distorts or is likely to materially distort the economic behaviour¹ with regard to the product of the average consumer whom it reaches or to whom it is addressed, or of the average member of the group when a commercial practice is directed to a particular group of consumers.

Another relevant example may be the provisions concerning unfair B2B trading practices in the food supply chain. The Commission Communication on unfair trading practices in the food supply chain defines a B2B unfair trading practice as:

“a practice that grossly deviates from good commercial conduct, is contrary to good faith and fair dealing and is unilaterally imposed by one trading partner on another.”

Interestingly to delineate the boundary between EU antitrust rules and national unfair practices law, Rec 9 Regulation 1/2003 mentions: *legislation which prohibits undertakings from imposing on their trading partners, obtaining or attempting to obtain from them terms and conditions that are unjustified, disproportionate or without consideration.*

Thus, in general terms, unfair practice might be characterised as:

- a violation of good faith or good commercial conduct,

- a creation of imbalance in the contractual relationship with the transfer of costs and shift of entrepreneurial risk to the weaker party,
- a unilateral imposition.

Similar provisions are included in French legislation under which it would be illegal to impose, or attempt to impose, terms that create a "significant imbalance" in the rights and obligations of the parties.

These formulations are very general. They have the advantage of being flexible and so easily adaptable to technology and market evolution, which can be rapid and often unpredictable, in the digital economy. However, the drawback of including such general formulations is that it may increase legal uncertainty and increase the risk of type 1 errors (over-intervention). To mitigate those drawbacks, the general clause may need to be clarified, to increase legal certainty and predictability. Thus, if more general "greylist" provisions such as these were included in the DMA (alongside more specific blacklists), one solution could be to clarify such provisions through Guidelines which could be adopted by the European Commission, following consultation of the network of the National Digital Authorities.

Depending on the issue raised, and especially for practices which might have positive as well as negative consequences, it may also be necessary to include a "greylist" provision which is subject to a proportionality principle coupled with checks-and-balances to alleviate over-regulation. This type of "greylist" clause may in practice require some form of case by case interpretation and enforcement. Such cases could be **handled through binding agreements** entered into by players designated as conglomerate gatekeepers with the approval of the national regulatory authority (mandatory "Codes of Conduct") or through directly imposed regulatory measures.

An alternative would be to include in the DMA more precise grey lists such as the semi open clause which can be found in the UCPD and which relates to misleading commercial practices (actions or omissions) or aggressive commercial practices.³²⁸ Such a semi-open "greylist" could be used to increase specificity compared with some of the broader provisions in the UCTD; and /or to specify under which circumstances conduct might be viewed as harmful. This approach has the advantage of giving more precise indications of the prohibited practices (hence increasing legal certainty) while leaving some flexibility in the enforcement of the law.

Obligations

Certain issues are likely to require positive obligations rather than prohibitions. Some obligations may be imposed in the DMA as they would be limited to large gatekeeper platforms. They relate in particular to **access to technological functionality, access to platform services, data sharing, data portability** (going further than the current EU law, in particular the GDPR) and **interoperability**.

Other data related obligations to be applicable to a broader set of platforms could also be potentially addressed through the planned Data Act.

Obligations of the kind that may be appropriate to include in the DMA could in principle also be included within the legislation itself. However, in this case, obligations would need to be tightly specified, and phrased in a way that would allow them to be relevant and applicable under all circumstances, or would allow a judgement call to be made by the regulatory authority concerning the circumstances in which they are applicable.

Another approach to these kinds of provisions is to provide a toolbox. As explained in Annex 5, the toolbox approach mirrors the toolbox provided in the EECC to enable regulation of providers of electronic communications networks and services which have been found to

³²⁸ UCPD, arts.6-9.

have “Significant Market Power”. In the EECC regime, national regulatory bodies are given a menu of remedies from which they can choose although the choice is limited in various ways³²⁹.

The menu has been subject to periodic revision (and extension) when the legislative framework has been reviewed, and currently includes transparency and disclosure, accounting separation and non-discrimination obligations to address concerns about exclusionary conduct, obligations to provide access to a wide range of inputs, price control and cost accounting measures to address concerns about exploitative (or exclusionary, if wholesale inputs) conduct, and the ‘functional’ separation of activities. The framework does not give the NRA powers to require the divestiture of assets or businesses.

The toolbox approach is appropriate when the nature of the problem may vary from one case to another. However, it adds a further layer of case by case analysis compared with an approach based on general prohibitions or obligations which are directly established in the legislation, and thus may add a further element of delay or legal uncertainty, which may not be warranted in cases where there are behavioural principles that are relevant across a wide set of circumstances and platforms.

Transparency measures to ensure effective enforcement of the DMA remedies

In order to ensure effective implementation of the prohibitions and obligations mentioned above, the asymmetry of information between the large gatekeeper platforms and the regulatory authority need to be reduced. This would imply granting extensive information gathering power to the regulatory authority as well as **extensive information disclosure and transparency obligations** for the large gatekeeper platforms. Such information gathering provisions for gatekeeper platforms should be in addition to market data gathering powers, which could apply across the sector more broadly.

iii. Regulation vs co-regulation

There are a number of ways in which greylist provisions or more general requirements or prohibitions could be elaborated, if this approach is pursued under the DMA.

At its most straightforward, interpretation and elaboration of general requirements applying to specific platforms could be carried out directly by the regulatory authority through Decisions concerning remedies and their application.

Another potentially relevant approach to elaborating such measures, which is identified in the Furman Report³³⁰ could be that platforms with ‘strategic market status’ that perform a gatekeeper role should be subject to a code of conduct. The details of the code were to be developed, but were expected to include obligations to ensure users could obtain both access to the platform and prominence, rankings and reviews on the platform on a ‘fair, consistent and transparent’ basis, and prohibitions on restrictions or penalties for using other channels to market. Specific provisions may be required for particular markets or for a subset of platforms.

The CMA has taken up this proposal in its final report into digital advertising markets³³¹ with principles of ‘fair trading’ intended to address exploitative abuses, ‘open choices’ to prevent exclusion (including requiring interoperability of core services), and ‘trust and transparency’.

³²⁹ For example the remedies are conceived as a hierarchy, whereby regulators are required to prioritise interventions in upstream markets before they can consider the application of remedies downstream EECC, Article 73(2).

³³⁰ Furman report, paras 2.34-

³³¹ para 6.37-

The CMA envisage that a regulator would enforce the Code, with powers to issue interim measures in cases of suspected non-compliance and the power to appoint a monitoring trustee to oversee subsequent compliance if a breach has been found. It is important to note that, in this context, the “Code of Conduct” would be a co-regulatory tool, subject to approval by the authority, and not a self-regulatory measure. In this sense, it may have some of the same characteristics as “Commitments” entered into by the regulated party. Another example of the potential for operators with market power to enter into commitments are the relevant provisions of the recently adopted EU Electronic Communications Code.³³²

The **advantages** of co-regulatory Codes of Conduct as a means of “implementing” general measures is that:

- there is less need for a deep understanding by the regulatory body of all characteristics and structural aspects of the regulated platforms, as the regulated platform would propose the rules in the first instance;
- the rules that are envisaged would provide firms with greater predictability than is available under competition law (particularly in relation to matters on which there is little or no precedent) and may also prohibit practices which might otherwise be legal absent the regulatory framework;
- a regulatory body is expected to act much more quickly to remedy breaches of the rules than would be possible under existing competition law arrangements. This may include co-operative outcomes rather than requiring formal decisions. However, enforcing principles rather than detailed rules is still likely to give rise to arguments as to interpretation and application in a particular set of circumstances; and
- finally, the regulatory framework would be less concerned with establishing culpability or imposing fines, and more concerned with ensuring pro-competitive conduct. The relationship between regulator and regulated firm would be more of an ongoing dialogue, with guidelines which would adapt to changes over time and perhaps the trialling of different actions or measures to assess their effectiveness before they were implemented.

On the other hand, an approach which is governed through rules proposed by the gatekeeper platform and approved by the regulatory body could lead to regulatory capture and prove to be inadequate in addressing the problems identified. One solution, proposed by members of the expert panel convened for this study, would be to more closely involve stakeholders in both the development of the “Code of Conduct” and its monitoring. An example of such an approach can be seen in the provisions to ensure Quality of Service for large electricity customers in the UK, called the “Incentive on Connections Engagement” (ICE).³³³

However, a disadvantage of the Code of Conduct approach, whether pursued purely between the gatekeepers and the regulator, or involving stakeholders, is that it could be lengthy to administer and would require regular updates and case-specific enforcement for each gatekeeper platform identified. Such an approach might be appropriate if the threshold

³³² EECC, art.79.

³³³ This system was introduced in April 2015 to ensure that distribution network operators meet the needs of larger or more complex connections customers (i.e. business customers). Under this scheme, licensees establish targets in conjunction with their customer base and publish an implementation plan, which is subject to consultation. The firms must also publish data demonstrating how they have met their targets, and Ofgem publishes these reports and seeks feedback on licensees’ performance. An internal Ofgem panel reviews whether the licensees have met their obligations. If DNOs are found not to have met the needs of their stakeholders, they may be subject to a penalty of up to 0.9% of their base revenue for the market segments targeted by the regulation. <https://www.ofgem.gov.uk/publications-and-updates/incentive-connections-engagement-consultation-distribution-network-operators-2020-submissions#:~:text=The%20purpose%20of%20the%20Incentive,they%20could%20incur%20a%20penalty.>

for intervention captures only the largest platforms. However, if the threshold is wider and thus captures sectoral gatekeepers, implementing a “greylist” prohibition concerning exclusionary conduct coupled with Codes of Conduct for each gatekeeper may be disproportionate and overly burdensome.

iv. Conclusions regarding remedies

Based on analysis in previous sections, blacklist, greylist and whitelisted practices could potentially be addressed as shown in the following table.

Issue	Specific problems reported	Type of provision	Implementation	Potential provision
Unfair contractual practices	Linking access or related services to unrelated conditions e.g. "investment", or use of single sign-in	Blacklist	Self-executing	Prohibition on linking access or related services to unrelated transactions
	Anti-steering clauses	Blacklist	Self-executing	Prohibition on anti-steering clauses
	Requirement for price alignment	Blacklist	Self-executing	Prohibition on MFN clauses (wide)
	Exclusive agreements with business users	Blacklist	Self-executing	Prohibition on linking platform access (or other essential features) to exclusivity clauses
	Excessive commission charges, unjustified increases in commission charges	Greylist	Elaboration, case by case enforcement	Prohibition on charging fees for access to the platform which are manifestly unrelated to associated cost or value of the access provided
Access to data, misuse of data and data portability	Customer data not passed on or only with delay	Obligation	Elaboration needed / standards	Requirement for access to data relevant to customer transaction without undue delay.

Issue	Specific problems reported	Type of provision	Implementation	Potential provision
	Use of third party data for competitive advantage	Blacklist (potentially with implementing aspect)	Potentially self-executing, but guidelines may be helpful alongside active enforcement	Prohibition on use of third party data for competitive advantage
	Proprietary standards for customer data, product descriptions, packaging etc	General obligation	Implementation needed - mandatory standards	Obligation to provide dataset according to specified standards.
	Data insufficiently complete to enable portability	General obligation	Implementation needed - list of data	Obligation for minimum data set to be provided within given period.
Harmful Self-preferencing	Self-preferencing in ranking	Blacklist	Self-executing, but guidelines may be helpful	Prohibition on adjustments to ranking algorithm to favour own services
	Self-preferencing (general) including preferential placement of own brand or preferencing of ancillary services	Greylist	Implementation needed: via commitments or decision by authority	Prohibition on harmful self-preferencing including preferential placement of own-brand products or preferencing of ancillary services

Issue	Specific problems reported	Type of provision	Implementation	Potential provision
	Pre-loading	Case by case obligation	Implementation needed - commitments or decision by authority	Authority has power to prohibit pre-loading and/or require neutral listing procedure
	Steering e.g. towards an application, start screen	Case by case obligation	Implementation needed - commitments or decision by authority	Authority has power to prohibit steering
Refusal of access or interoperability	Lack of published APIs, incomplete documentation, delays in receiving updates	Case by case obligation	Implementation needed - decision by authority	Power to require timely publication and update of APIs and associated documentation
	Lack of access to technical functionalities	Case by case obligation	Implementation needed - decision by authority	Power to require access to technical functionalities and to set associated terms, conditions and price
	Lack of access to platform to provide complementary services	Case by case obligation	Implementation needed - decision by authority	Power to require access to platform, where needed to promote choice and innovation and to set associated terms, conditions and price

Issue	Specific problems reported	Type of provision	Implementation	Potential provision
	Refusal to interconnect	Case by case obligation	Implementation needed - decision by authority	Power to require interconnection and interoperability, where needed to facilitate choice and innovation, power to set associated terms, conditions and price
Harmful bundling and tying Harmful cross-subsidisation	Mandatory bundling or steering towards own-brand complementary products	Greylist	Implementation needed - commitments or decision by authority	Prohibition on preventing separate sale of services which may be supplied by alternative service providers. Authority may also prohibit steering to own-brand products and require neutral listings
	Bundled add-ons priced below cost	Greylist	Implementation needed - commitments or decision by authority	Prohibition on cross-subsidisation having anti-competitive effect

A summary of the measures that could potentially be applied is shown in the following table.

Type of provision	Practice addressed
Blacklist – per se general prohibition	<p>Unfair trading practices (specific) e.g.</p> <p>Prohibition on making the provision of access or associated conditions (including display and prominence) conditional on unrelated transactions such as obligations to participate in single sign-on</p> <p>Prohibition on making access or associated conditions conditional on exclusivity</p> <p>Prohibition on anti-steering clauses</p> <p>Prohibition on MFN clauses (wide)</p> <p>Prohibition on adjustments to ranking algorithm to favour own services</p> <p>Prohibition on misuse of third-parties data for competitive gain</p>
Greylist (with potential for clarification through Guidelines)	<p>Minimum data / timescales for data portability / requirement to meet standards</p> <p>Requirement to provide data associated with business users' own customers with given timescales / format</p> <p>Prohibition on harmful self-preferencing</p> <p>Prohibition on harmful tying and bundling</p> <p>Prohibition on cross-subsidisation (between different services or products or different geographic regions) having exclusionary effect</p>
General obligations with case by case application	<p>Access to core services on fair and non-discriminatory terms and conditions including price</p> <p>Access to technological functionality and associated APIs</p> <p>Data access obligations</p> <p>Interoperability obligations</p>

In addition, it would be necessary to include market monitoring provisions and a transparency obligation on gatekeeper platforms for effective enforcement of DMA remedies.

Elaboration of measures which require an implementing step could, as discussed, be conducted either directly by the Commission or via a co-regulatory process involving the regulated gatekeeper and potentially resulting in “commitments” or binding “Codes of Conduct”. There are merits to either approach, but it is clear, given the degree of the problems concerned and likely challenges associated with implementing measures that the regulatory authority would need to drive the decision-making process or actively engage in the development of and approve any commitments made by the platforms concerned.

Annex 3. Analytical methods

Table 23 below summarises the analytical methods used in the impact assessment according to the EU Better Regulation Guidelines³³⁴.

Table 23. Summary of analytical methods by impact

Specific impact	Approach	Analytical tools	Sources
Internal market fragmentation	Quantitative analysis	Secondary data on measures taken at national level or national legislation	Interviews
	Qualitative analysis	Data on proxies such as online cross-border trade	Literature review Focus groups Case studies
Economic growth	Quantitative analysis	Secondary data	Literature review
	Qualitative analysis	Input-output model	Econometric modelling
Compliance costs	Quantitative analysis	Standard Cost model (SCM)	Interviews
	Qualitative analysis	Quantitative data from similar interventions and/or consultations with stakeholders	Literature review Survey
Innovation: diversity of business models (e.g. privacy-friendly options), products and services available to consumers and business users	Qualitative analysis	Descriptive statistics on relevant indicators or proxies such as investment and trends in R&D, number of patents	Interviews
	Quantitative analysis	Other qualitative data validating/triangulating secondary evidence	Literature review Focus groups Case studies
Competition	Quantitative analysis	Descriptive statistics on relevant indicators such as market concentration index, distribution of financial shares, market shares	Interviews
	Qualitative analysis	Other qualitative data validating/triangulating secondary evidence	Literature review Focus groups Case studies
Consumer welfare and detriment	Quantitative analysis	Descriptive statistics on relevant indicators or proxies such as fees paid,	Literature review
	Qualitative analysis	Other qualitative data validating/triangulating secondary evidence Projections from input-output model	Survey Case studies
Online cross-border	Qualitative analysis	Other qualitative data validating/triangulating secondary evidence	Literature review

³³⁴ https://ec.europa.eu/info/law/law-making-process/planning-and-proposing-law/better-regulation-why-and-how/better-regulation-guidelines-and-toolbox/better-regulation-toolbox_en

a. Analytical tools for quantitative estimation

Given the availability of data, the approaches to estimate impacts were twofold:

- descriptive statistics with hypothetical extrapolation; and
- macro-econometric modelling (Input-Output model).

Regression analysis was not feasible because the time span did not allow for time series analysis. Likewise, considering the concentration of the platform economy, the number of firms (unit of observations) was too limited to achieve statistical power. However, descriptive statistics was used to offer valuable insights into general patterns and to explore associations between variables or observe trends. Such evidence, if triangulated with secondary sources, can bring valuable insights to the analysis.

i. Overview of data and methodology for the input-output model

This is a brief overview of the econometric modelling applied to this impact assessment aiming to quantify the impacts resulting from policy options that foster market contestability and fairer competition. Such impacts are measured in economic growth (GDP) and employment (job creation).

Introduction to the I-O model

The input-output (I-O) model is the name given to a modelling approach developed by Professor Wassily Leontief in the late 1930s³³⁵. As its name suggests, the I-O model assumes that there is a matrix that links transactions or flows recording payments **to and from** a sector within a year. Besides, the framework works on double-entry bookkeeping so that total gross output must equal gross input. Figure 74 below illustrates the model.

The row total represents the total produced (supplied) by a sector while the total column represents the total used (demanded) by such sector. Hence, any element α_{ij} in each cell is what sector j use from sector i.

Figure 74. Input-output transaction matrix

		PRODUCERS AS CONSUMERS								FINAL DEMAND			
		Agric.	Mining	Const.	Manuf.	Trade	Transp.	Services	Other	Personal Consumption Expenditures	Gross Private Domestic Investment	Govt. Purchases of Goods & Services	Net Exports of Goods & Services
PRODUCERS	Agriculture												
	Mining												
	Construction												
	Manufacturing												
	Trade												
	Transportation												
	Services												
	Other Industry												
VALUE ADDED	Employees	Employee compensation								GROSS DOMESTIC PRODUCT			
	Business Owners and Capital	Profit-type income and capital consumption allowances											
	Government	Indirect business taxes											

³³⁵ Leontief, W.W. (1986), Input-Output Economics, Second edition. Oxford: Oxford University Press.

Source: Miller and Blair (2009)³³⁶

The model is built using observed economic data from national account statistics to show the flows of products going from each industrial sector seen as a producer to sectors seen as consumers. The grey area in Figure 74 above is the interindustry trade to which must be added the final demand columns and the value-added rows.

National account data will populate the matrix which will be used to estimate impacts out of exogenous shocks. For example, each Z_{ij} in the matrix below (Figure 75) will be constructed from official statistics. Such matrix will be used to find a matrix with the multiplier effects to estimate how exogenous changes in one specific sector of the economic impacts in the other sectors, value-added, final demand and lastly in GDP.

Figure 75. Example of a two-sector economy

		Processing Sectors		Final Demand			Total Output (x)	
		1	2					
Processing Sectors	1	z_{11}	z_{12}	c_1	i_1	g_1	e_1	x_1
	2	z_{21}	z_{22}	c_2	i_2	g_2	e_2	x_2
Payments Sectors	Value Added (v')	l_1	l_2	l_C	l_I	l_G	l_E	L
		n_1	n_2	n_C	n_I	n_G	n_E	N
	Imports	m_1	m_2	m_C	m_I	m_G	m_E	M
Total Outlays (x')		x_1	x_2	C	I	G	E	X

Source: Miller and Blair (2009)

The next section describes the implementation of the I-O model to this impact assessment.

Implementation of the I-O model for the impact assessment

In this analysis, data was taken from the sources below:

- The 2014 world input-output table (WIOT) publicly available from the World Input-Output Database (WIOD, www.wiod.org),
- Employment (number of persons engaged) and compensation of employees obtained from the Socio-Economic Accounts (SEAs) of WIOD, and
- Private R&D investments in information and communication (and its subitems represented by NACE Rev.2's Section J's divisions and/or groups), obtained from Eurostat³³⁷.

The most recent data were available for 2014 (WIOD Release 2016), which explains the choice of the year in our impact assessments. The WIOTs and SEAs cover 43 countries and the rest of the world region, each detailed by 56 industries according to the International Standard Industrial Classification Rev. 4. All tables adhere to the latest version (2008) of the System of National Accounts.

³³⁶ Miller, R.E. and Blair, P.D., 2009. Input-output analysis: foundations and extensions. Cambridge university press. Available at: <http://digamo.free.fr/io2009.pdf>

³³⁷ Business expenditure on R&D (BERD) by NACE Rev. 2 activity and source of funds [rd_e_berdfundr2], metadata accessible at: https://ec.europa.eu/eurostat/cache/metadata/en/rd_esms.htm

To incorporate **the impact of market contestability and fairer competition in GDP and employment into the I-O model**, we needed to assume that such market dynamic would result in **higher investment in R&D in the platform economy**, impacting in GDP and job creation. However, as the platform economy is still relatively new to the national account system there is not an exact code for such sector and we had to take some sub-sectors from the ICT sector as a proxy³³⁸.

The results suggest that private investments in ICT sectors account only for roughly 0.10% of the EU GDP. The I-O modelling exercises show that these investments imply:

- An overall EU income increase from 0.09% to 0.17% (of 2014 EU GDP) and EU employment increase from 0.07% to 0.15% (of 2014 EU employment);
- At the EU level, most of the impacts are driven by one ICT subsector, consisting of Computer programming, consultancy and related activities and Data processing, hosting and related activities, web portal;
- The impacts are, however, heterogenous across the individual EU countries.

Limitations

One of the main limitations is the lack of exact code to identify the platform economy which may be underestimating the actual size of the sector and hence the contribution and links to the overall economy.

A second limitation is that it only incorporates the increase of R&D but there might be other exogenous shocks resulting from market contestability and fairer competition, including higher market size and higher online-cross-border trade. As it is difficult to know a priori the increase in market size and across which sector, incorporating this into the model proves challenging.

Other direct and indirect effects such as entrepreneurship, quantitative and qualitative changes in the patterns of innovation as well as lower prices to consumers resulting from market contestability are not included in the model for the same reasons as failing to incorporate change in market size.

Therefore, the estimations must be taken as conservative and lower bound.

Further methodological background to the I-O model

This section expands on the methodology of I-O model summarised in the previous sections.

Data

For the impact assessment purposes, we used the following data:

- The 2014 world input-output table (WIOT) publicly available from the World Input-Output Database (WIOD, www.wiod.org),

³³⁸ The R&D expenditure data cover part of ICT services (but not ICT manufacturing), along with other subitems of Information and communication sector. These ICT services include Software publishing (NACE Group 58.2), Telecommunications (NACE Division 61), Computer programming, consultancy and related activities (NACE Division 62), and Data processing, hosting and related activities; web portals (NACE Group 63.1)

- Employment (number of persons engaged) and compensation of employees obtained from the Socio-Economic Accounts (SEAs) of WIOD, and
- Private R&D investments in information and communication (and its subitems represented by NACE Rev.2's Section J's divisions and/or groups), which were obtained from the ICF.

The most recent data were available for 2014 (WIOD Release 2016), which explains the choice of the year in our impact assessments. The WIOTs and SEAs cover 43 countries and the rest of the world region, each detailed by 56 industries according to the International Standard Industrial Classification Rev. 4 (see Table 24). All tables adhere to the latest version (2008) of the System of National Accounts.

Table 24. Countries/regions and industries covered in WIOD release 2016

Countries		Industries (ISIC Rev. 4)	
<i>Acr</i>	<i>Name</i>	<i>Code</i>	<i>Name</i>
AUS	Australia	A01	Crop and animal production, hunting and related service activities
AUT	Austria	A02	Forestry and logging
BEL	Belgium	A03	Fishing and aquaculture
BGR	Bulgaria	B	Mining and quarrying
BRA	Brazil	C10-C12	Manufacture of food products, beverages and tobacco products
CAN	Canada	C13-C15	Manufacture of textiles, wearing apparel and leather products
CHE	Switzerland	C16	Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials
CHN	China	C17	Manufacture of paper and paper products
CYP	Cyprus	C18	Printing and reproduction of recorded media
CZE	Czech Republic	C19	Manufacture of coke and refined petroleum products
DEU	Germany	C20	Manufacture of chemicals and chemical products
DNK	Denmark	C21	Manufacture of basic pharmaceutical products and pharmaceutical preparations
ESP	Spain	C22	Manufacture of rubber and plastic products
EST	Estonia	C23	Manufacture of other non-metallic mineral products
FIN	Finland	C24	Manufacture of basic metals
FRA	France	C25	Manufacture of fabricated metal products, except machinery and equipment
GBR	United Kingdom of Great Britain and Northern Ireland	C26	Manufacture of computer, electronic and optical products
GRC	Greece	C27	Manufacture of electrical equipment
HRV	Croatia	C28	Manufacture of machinery and equipment n.e.c.

Countries		Industries (ISIC Rev. 4)	
Acr	Name	Code	Name
HUN	Hungary	C29	Manufacture of motor vehicles, trailers and semi-trailers
IDN	Indonesia	C30	Manufacture of other transport equipment
IND	India	C31_C32	Manufacture of furniture; other manufacturing
IRL	Ireland	C33	Repair and installation of machinery and equipment
ITA	Italy	D35	Electricity, gas, steam and air conditioning supply
JPN	Japan	E36	Water collection, treatment and supply
KOR	Republic of Korea	E37-E39	Sewerage; waste collection, treatment and disposal activities; materials recovery; remediation activities and other waste management services
LTU	Lithuania	F	Construction
LUX	Luxembourg	G45	Wholesale and retail trade and repair of motor vehicles and motorcycles
LVA	Latvia	G46	Wholesale trade, except of motor vehicles and motorcycles
MEX	Mexico	G47	Retail trade, except of motor vehicles and motorcycles
MLT	Malta	H49	Land transport and transport via pipelines
NLD	Netherlands	H50	Water transport
NOR	Norway	H51	Air transport
POL	Poland	H52	Warehousing and support activities for transportation
PRT	Portugal	H53	Postal and courier activities
ROU	Romania	I	Accommodation and food service activities
RUS	Russian Federation	J58	Publishing activities
SVK	Slovakia	J59_J60	Motion picture, video and television programme production, sound recording and music publishing activities; programming and broadcasting activities
SVN	Slovenia	J61	Telecommunications
SWE	Sweden	J62_J63	Computer programming, consultancy and related activities; information service activities
TUR	Turkey	K64	Financial service activities, except insurance and pension funding
TWN	Taiwan	K65	Insurance, reinsurance and pension funding, except compulsory social security
USA	United States	K66	Activities auxiliary to financial services and insurance activities
RoW	Rest of the World	L68	Real estate activities
		M69_M70	Legal and accounting activities; activities of head offices; management consultancy activities
		M71	Architectural and engineering activities; technical testing and analysis

Countries		Industries (ISIC Rev. 4)	
Acronym	Name	Code	Name
		M72	Scientific research and development
		M73	Advertising and market research
		M74_M75	Other professional, scientific and technical activities; veterinary activities
		N	Administrative and support service activities
		O84	Public administration and defence; compulsory social security
		P85	Education
		Q	Human health and social work activities
		R_S	Other service activities
		T	Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use
		U	Activities of extraterritorial organizations and bodies

The R&D expenditure data cover part of ICT services (but not ICT manufacturing), along with other subitems of Information and communication sector. These ICT services include Software publishing (NACE Group 58.2), Telecommunications (NACE Division 61), Computer programming, consultancy and related activities (NACE Division 62), and Data processing, hosting and related activities; web portals (NACE Group 63.1). The corresponding three WIOD industries are highlighted in Table 24 above.

To obtain the ICT final demand shocks for the EU countries, we first used the relevant information for the most recent period of 2015-2018. It provides data on total R&D expenditures on information and communication, and separately also for its subitem Software publishing (missing for some countries). From this data total private R&D investments were obtained for each EU country as the maximum value over the period (see Table 25). As seen from Table 25, most of these figures correspond to total R&D investments made in the year of 2017. Similar procedure has been applied to the existing data on R&D expenditures in Software publishing, while the missing figures were estimated in the second step to be discussed next.

For earlier period – for which we restricted our focus to the 2009-2014 period – the R&D data also give the details, albeit incomplete, for NACE sector J's subitems, i.e. Publishing of books, periodicals and other publishing activities (J58.1), Software publishing (J58.2), Motion picture, video and television programme production, sound recording and music publishing activities (J59), Programming and broadcasting activities (J60), Telecommunications (J61), Computer programming, consultancy and related activities (J62), Data processing, hosting and related activities; web portals (J63.1) and Other information service activities (J63.9). We used this information (i.e. subitems shares of total R&D expenditure per country over the considered period) to allocate the total R&D private investments to these subitems. The resulting R&D private investments in three WIOD ICT sectors are presented in the last three columns of Table 25. These figures are used as our ICT final demand shocks in quantifying the income and employment effects of private R&D investments in ICT services.

Table 25. R&D expenditures on information and communication by business enterprise sector (unit: mln. euro)

	2015	2016	2017	2018	Chosen total investments	ICT final demand shocks		
						J58.2	J61	J62_J63.1
Austria	377.939	0	438.789	0	438.789	23.496	64.212	350.319
Belgium								
Bulgaria	27.901	37.54	39.443	0	39.443	0.232	0.084	39.127
Croatia	5.635	9.391	13.001	0	13.001	0.344	10.769	1.888
Cyprus	8.879	20.967	22.827	0	22.827	21.069	0.048	1.710
Czechia	100.294	93.36	157.77	182.478	182.478	27.207	18.459	136.812
Denmark								
Estonia	42.63	0	0	0	42.630	0.000	6.363	36.267
Finland	479.5	502.7	556.2	0	556.200	61.800	45.755	447.125
France	0	3710.013	4296.257	0	4296.257	1108.143	463.834	2516.755
Germany	0	0	3084.4	0	3084.400	15.400	368.145	2700.855
Greece	54.89	0	117.54	0	117.540	4.355	37.481	75.704
Hungary	67.666	67.512	85.664	0	85.664	13.032	2.172	70.460
Ireland								
Italy	1128	1291.531	1372.69	0	1372.690	6.574	833.158	522.811
Latvia	1.28	1.35	5.04	0	5.040	0.000	0.000	5.040
Lithuania	10.565	7.744	20.442	0	20.442	0.136	11.877	8.429
Luxembourg								
Malta	12.435	13.789	16.468	0	16.468	3.439	0.010	10.583
Netherlands								
Poland	395.378	0	686.469	0	686.469	18.863	0.000	619.159
Portugal	167.096	0	237.283	276.448	276.448	11.629	158.311	105.228
Romania	27.317	86.056	56.553	0	86.056	46.221	1.643	38.192
Slovakia	36.338	40.933	42.733	49.982	49.982	0.000	0.000	49.982
Slovenia	0	31.404	0	0	31.404	2.767	3.687	24.843
Spain	638	692	682	0	692.000	17.000	130.774	515.463

	2015	2016	2017	2018	Chosen total investments	ICT final demand shocks		
						J58.2	J61	J62_J63.1
Sweden	566.312	0	2192.401	0	2192.401	0.000	0.000	1107.827
United Kingdom	0	3340.207	3595.301	0	3595.301	12.775	1494.515	1953.272

Source: Own elaboration using Eurostat R&D expenditure data.

Methodology

To assess the impact of ICT R&D expenditures, we use multi-regional demand-driven input-output (IO) quantity models. The IO (quantity and price) models were first developed and empirically tested by Wassily Leontief (see e.g. Leontief, 1936, 1986), for which he was awarded The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel in 1973.

Consider an IO setting with two countries and the rest of the world region, each with n industries. Then the $3n \times 3n$ matrix of intermediate interindustry transactions, the $3n \times 3$ matrix of final demands, the $3n$ -dimensional vector of gross value added (included taxes less subsidies on products paid by industries), and the $3n$ -dimensional vector of gross outputs have the following respective forms:³³⁹

$$\mathbf{Z} = \begin{bmatrix} \mathbf{Z}^{11} & \mathbf{Z}^{12} & \mathbf{Z}^{13} \\ \mathbf{Z}^{21} & \mathbf{Z}^{22} & \mathbf{Z}^{23} \\ \mathbf{Z}^{31} & \mathbf{Z}^{32} & \mathbf{Z}^{33} \end{bmatrix}, \mathbf{F} = \begin{bmatrix} \mathbf{f}^{11} & \mathbf{f}^{12} & \mathbf{f}^{13} \\ \mathbf{f}^{21} & \mathbf{f}^{22} & \mathbf{f}^{23} \\ \mathbf{f}^{31} & \mathbf{f}^{32} & \mathbf{f}^{33} \end{bmatrix}, \mathbf{v} = \begin{bmatrix} \mathbf{v}^1 \\ \mathbf{v}^2 \\ \mathbf{v}^3 \end{bmatrix}, \text{ and } \mathbf{x} = \begin{bmatrix} \mathbf{x}^1 \\ \mathbf{x}^2 \\ \mathbf{x}^3 \end{bmatrix},$$

where e.g. \mathbf{Z}^{rs} is the $n \times n$ matrix of intermediate deliveries from industries in country r to industries in country s .

The output-side accounting identity states that the output supply of each industry is equal to the sum of intermediate and final demands for the products produced by the industry in question, i.e.

$$\mathbf{x} = \mathbf{Z}\mathbf{i} + \mathbf{F}\mathbf{i}, \quad (1)$$

where \mathbf{i} is the summation vector of ones. Now define the *input coefficients* as intermediate deliveries per unit of output of each purchasing industry, i.e. $a_{ij}^{rs} = z_{ij}^{rs}/x_j^s$, or in compact matrix notation, $\mathbf{A} = \mathbf{Z}\hat{\mathbf{x}}^{-1}$ where $\hat{\mathbf{x}}$ is the diagonal matrix with elements of \mathbf{x} along its diagonal and zeros otherwise. Plugging this latter expression into (1) and solving for the vector of outputs yields the solution of the basic IO quantity model as follows:

$$\mathbf{x} = \mathbf{L}\mathbf{F}\mathbf{i}, \quad (2)$$

³³⁹ Adopting the conventional notation in IO analysis, matrices are given in bold, upper-case letters, vectors in bold, lower-case letters, and scalars in lower-case, italicized letters. Vectors are columns by definition, and thus row vectors are obtained by transposition, indicated by a prime (').

where $\mathbf{L} \equiv (\mathbf{I} - \mathbf{A})^{-1}$ is the called Leontief inverse matrix, whose typical element l_{ij}^{rs} indicates the (extra) output in industry i in country r that is directly and indirectly required to satisfy one (extra) unit of final demand in industry j in country s . The open Leontief IO model (2) can be used to find the estimates of outputs that are necessary to satisfy any exogenously given final demand vector $\tilde{\mathbf{f}}$, as follows from:

$$\tilde{\mathbf{x}} = \mathbf{L}\tilde{\mathbf{f}}. \quad (3)$$

The assumptions of the model are fixed input coefficients and fixed product prices. As such this model is useful for short-term impact analysis purposes and is particularly relevant when the economy (or economies) under consideration are under-employing factors of production such as labor and capital.

Any other policy-relevant impact (e.g. income, employment, emissions) can be found through linking the variable(s) of interest to gross outputs of industries. For example, if we denote the *direct income coefficients* vector by $\hat{\mathbf{v}}_c = \mathbf{v}\hat{\mathbf{x}}^{-1}$, then the income generated (by industries and countries) due to the final demand shock $\tilde{\mathbf{f}}$ is straightforwardly derived from:

$$\tilde{\mathbf{v}} = \hat{\mathbf{v}}_c\mathbf{L}\tilde{\mathbf{f}}. \quad (4)$$

In case one wants to endogenize the intermediate demands of industries in countries 1 and 2 only, the input coefficients matrix to be used in the IO analysis should not account for all production links with industries in the “outsider” region 3 by *excluding* all a_{ij}^{3s} and all a_{ij}^{r3} . This situation formalizes one of our simulation environments, wherein only the intermediate demands of industries in the 28 EU countries are endogenously obtained from the IO model. However, by expanding the dimension of \mathbf{A} further to include the remaining 16 WIOD non-EU countries (Australia, Brazil, Canada, Switzerland, China, Indonesia, India, Japan, Republic of Korea, Mexico, Norway, Russian Federation, Turkey, Taiwan and the United States), the IO model would additionally account for the so-called inter-country/regional *feedback effects* coming from the non-EU countries due to the original ICT final demand shocks occurred within the EU countries. That is, a final demand stimulus within the EU increases intermediate demand for outputs of not only EU-producers, but also that of non-EU industries, the size of which depends on the nature of industries and the existing IO production network. This stimulus of new outputs in the non-EU countries due to the output stimulus within the EU is often called as *interregional spillover* effects. However, if one endogenizes non-EU intermediate demands (which is more realistic given recent globalization trends), the non-EU industries will in their turn also directly and/or indirectly require new outputs of the EU industries in order to satisfy their increased demands. Such loop of interactions, connecting EU industries to non-EU industries and back to EU industries, represents interregional feedback effects (Miller and Blair, 2009, p. 81).

In equation (3) and (4), final demand categories (private consumption, government consumption, gross capital formation, and exports) were assumed to be exogenous. An extension of the basic IO model thus calls for endogenizing a part of final demand. One such widely used semi-closed IO model treats households similar to industries on the ground that: (a) households earn income in exchange for their labor inputs to production, and (b) as consumers, households spend income on products in “rather well patterned ways” (Miller and Blair, 2009, p. 35). Households as a choice of final demand

endogenization is additionally driven by the fact that private consumption accounts for a significant part (about 60%) of GDP in most (developed) countries.

In a two-country IO system, the semi-closed model has the following form:

$$\begin{bmatrix} \mathbf{x}^1 \\ \mathbf{x}^2 \\ w^1 \\ w^2 \end{bmatrix} = \begin{bmatrix} \mathbf{A}^{11} & \mathbf{A}^{12} & \mathbf{h}_c^{11} & \mathbf{h}_c^{12} \\ \mathbf{A}^{21} & \mathbf{A}^{22} & \mathbf{h}_c^{21} & \mathbf{h}_c^{22} \\ (\mathbf{w}_c^1)' & \mathbf{0}' & \mathbf{0} & \mathbf{0} \\ \mathbf{0}' & (\mathbf{w}_c^2)' & \mathbf{0} & \mathbf{0} \end{bmatrix} \begin{bmatrix} \mathbf{x}^1 \\ \mathbf{x}^2 \\ w^1 \\ w^2 \end{bmatrix} + \begin{bmatrix} \bar{\mathbf{f}}^1 \\ \bar{\mathbf{f}}^2 \\ 0 \\ 0 \end{bmatrix}, \quad (4)$$

where the new vectors are defined as follows:

- \mathbf{w}_c^r – is the vector of *households input coefficients*, whose j -th element indicates country r 's households' compensation of employees per unit of output of industry j in country r , i.e. $w_{c,j}^r = w_j^r / x_j^r$,
- \mathbf{h}_c^{rs} – is the vector of *consumption coefficients*, whose i -th entry gives consumption expenditure of households in country s on products of industry i from country r per total income (i.e. compensation of employees) earned by households in country s , i.e. $h_{c,i}^{rs} = h_i^{rs} / w^s$, and
- $\bar{\mathbf{f}}^r$ – is the remaining total final demand in country r that excludes households' consumption expenditures.

Model (4) is essentially Miyazawa's (1976) model, where instead of income groups the heterogeneity of households is captured by their country of residence. If we further denote

$$\mathbf{A} = \begin{bmatrix} \mathbf{A}^{11} & \mathbf{A}^{12} \\ \mathbf{A}^{21} & \mathbf{A}^{22} \end{bmatrix}, \quad \mathbf{W}_c = \begin{bmatrix} (\mathbf{w}_c^1)' & \mathbf{0}' \\ \mathbf{0}' & (\mathbf{w}_c^2)' \end{bmatrix}, \quad \mathbf{H}_c = \begin{bmatrix} \mathbf{h}_c^{11} & \mathbf{h}_c^{12} \\ \mathbf{h}_c^{21} & \mathbf{h}_c^{22} \end{bmatrix}, \quad \text{and } \mathbf{x} = \begin{bmatrix} \mathbf{x}^1 \\ \mathbf{x}^2 \end{bmatrix},$$

the solution of (4), i.e. the vector of outputs necessary to satisfy any exogenously specified final demand vector $\tilde{\mathbf{f}}$, can be shown to have the following form (see e.g. Miyazawa, 1976):

$$\tilde{\mathbf{x}} = \mathbf{L}(\mathbf{I} + \mathbf{H}_c \mathbf{K} \mathbf{W}_c \mathbf{L}) \tilde{\mathbf{f}}, \quad (5)$$

where $\mathbf{K} = (\mathbf{I} - \mathbf{W}_c \mathbf{L} \mathbf{H}_c)^{-1}$ is the *inter-country income multiplier* matrix – an equivalent of the well-known Keynesian macro-multiplier in an interindustry IO framework. Thus, compared to the standard IO model in (3), in equation (5) additionally the impacts induced by households' consumption expenditures due to increased earned income are taken into account.

In the IO literature, Type-I and Type-II multipliers are widely used, and often respectively considered as lower and upper bounds of the actual impacts of a change in final demand (Oosterhaven, 2019). Withing the first modelling setting households are taken as exogenous, while in Type-II models households' behavior is explicitly modelled. Thus, the impacts derived from (3) and (5) can be called, respectively, as Type-I and Type-II

modelling impacts. The matrix of *industry-country pairs* impacts per unit of final demand are captured by Type-I and Type-II multipliers, which in case of income generation are, respectively, defined as:

$$\mathbf{M}_I = \hat{\mathbf{v}}_c \mathbf{L} \quad \text{and} \quad \mathbf{M}_{II} = \hat{\mathbf{v}}_c \mathbf{L} (\mathbf{I} + \mathbf{H}_c \mathbf{K} \mathbf{W}_c \mathbf{L}). \quad (6)$$

While Type-I multipliers capture the initial, direct and indirect effects of an exogenous change in final demand, Type-II multipliers additionally capture induced effects due to the increased private consumption driven by higher incomes. (For further details on multiplier types, see Temurshoev and Oosterhaven, 2014). Summing across different parts of \mathbf{M}_I and \mathbf{M}_{II} gives the multiplier impacts of interest, where the impacts could be distinguished e.g. by country of origin and/or destination of impacts, by industries, country-industry pairs, etc.

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Annex 4. Case Studies

a. Unjustified tying and bundling (Cases 1–3) – General legal context

Offering products together as part of a package can benefit consumers who like the convenience of buying several items at the same time. It can also reduce the manufacturer's costs for packaging, shipping and marketing the products.

But when products are only offered as part of a package, it can be more difficult for consumers to buy only what they want.

In an EU legal context, bundling usually refers to arrangements in which products are:

- only sold jointly (pure bundles); or
- made available separately but, when acquired as a bundle, the price is lower (mixed bundling).

Tying usually refers to situations where customers who purchase one product (the tying product A) are required also to purchase another product (the tied product B) from the dominant undertaking.

In this categorisation, the difference between tying and pure bundling is that, in tying, the tied product B is available separately.

Tying may be contractual or technical³⁴⁰, such that the tying and tied product are integrated or designed to only work together.

i. Economics of tying and bundling

The Chicago School of Economics typically holds that tying can only have an underlying efficiency purpose, due to the well-known “single monopoly profit” theory, which holds that a firm which has a monopoly in one product cannot increase its monopoly profits by using tying to leverage itself into a second monopoly in another product (Bork 1978). However, the single monopoly profit theory was found to hold only under extreme, rather unrealistic assumptions (Elhaug 2009); accordingly, more recent literature suggests that tying of sales by a monopolist (or dominant player) can be used to leverage market power into new markets and maintain dominance in globalised digital markets (Ciriani and Lebourges, 2017). Also, older literature suggests that tying is profitable for the monopolist because it has the potential to exclude rivals in the tied market (Whinston, 1989).

In digital platform markets, where technological progress is rapid and the lifetime of products short, the transfer of monopoly power through tying complementary products discourages entry from alternative producers (Carlton and Waldman, 2002; Ciriani and Lebourges, 2017). This serves to increase and extend dominance in future periods (Carlton and Waldman, 2002).

At the same time, the dominant platform is incentivised to innovate and bundle new products with complementary products more rapidly. For the dominant platform, the innovation can come through acquiring smaller providers of digital technologies and services, incorporating the external innovation capacity. This pre-empts innovation from potential competitors that could capture the dominant platform's profits in the future (Van Gorp and Honnefelder, 2015).

The welfare effects of tying as a means to steer consumers' demand towards a single dominant platform are ambiguous (Haucap and Heimeshoff, 2014), and overall depend on the size of indirect network effects, the potential leveraging of market power, and the extent

³⁴⁰ European Commission guidance (Communication 2009/C 45/02) on the application of art. 102 TFEU, para. 48. <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52009XC0224%2801%29>

to which consumers can access compatible products from competing platforms (Ciriani and Lebourges, 2017).

Overall, the economic literature suggests that the systematic regulation of tying is not always justified on efficiency and welfare grounds. Tying can often be justified on efficiency grounds and expands the range of products to users and the profit of the platform. Potentially anticompetitive effects can be mitigated by effective multi-homing, provided lock-in effects are not too strong and switching costs not too high (Ciriani and Lebourges, 2017).

Against this background, academic research has shown that large digital platforms use tying both to defend their most entrenched sources of competitive advantage (so-called “defensive leveraging”) as well as to enter new markets and compel use of its services (Edelman, 2015), which makes it relevant for this study.

The above discussion suggests that tying is especially problematic if multi-homing is insufficient, lock-in effects are strong, and switching costs are high.

ii. Tying and bundling in EU competition law

In EU competition law, anticompetitive bundling and tying may constitute abuses of dominance under article 102(2)(d) TFEU, which prohibits dominant undertakings from making “*the conclusion of contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts*”.

Contractual tying occurs when the customer who purchases the tying product undertakes also to purchase the tied product (and not the alternative tied products offered by competitors). Tying can also infringe article 101(1)(e) TFEU, which explicitly refers to such practices.

Technical tying occurs when the tying product is designed in such a way that it only works properly with the tied product (and not with the alternative tied products offered by competitors).

The European Commission’s 2004 *Microsoft* decision³⁴¹ (for details, see Section d below), set out the following criteria (upheld by the General Court) for characterising a tying abuse: (1) the tying and the tied products are two separate products; (2) the undertaking concerned is dominant in the market for the tying product; (3) the undertaking concerned does not give customers a choice to obtain the tying product without the tied product; and (4) the practice forecloses competition.

In relation to foreclosure, tying or bundling may lead to anticompetitive effects³⁴² in the tied market, the tying market, or both at the same time.

According to the European Commission, “*the risk of anticompetitive foreclosure is likely to be greater if the dominant undertaking’s tying or bundling strategy is a lasting one, for example through technical tying which is costly to reverse*”³⁴³.

³⁴¹ Case T-201/04 *Microsoft v Commission*, para. 842, 869 and 1058

<http://curia.europa.eu/juris/liste.jsf?num=T-201/04>. See also European Commission guidance (Communication 2009/C 45/02) on the application of art. 102 TFEU, para. 50. <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52009XC0224%2801%29>

³⁴² It is debatable whether EU case law requires competition authorities to prove the anticompetitive effects of tying or whether they can be presumed (per se illegality), and whether there is some difference between contractual and technical tying in this regard. In recent practice, the Commission’s decisions include an analysis of anticompetitive effects. See, for example, Lianos, Ioannis, Korah, Valentine, Siciliani, Paolo. *Competition Law* (p. 1180). OUP Oxford. Kindle Edition.

³⁴³ European Commission guidance (Communication 2009/C 45/02) on the application of art. 102 TFEU, para. 53. <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52009XC0224%2801%29>

b. Case 1: Unjustified tying and bundling – Amazon Video and Prime Shipping

i. What is the problem/s associated with this case?

The focus of the present case study is on the market for online video streaming. Amazon, as the dominant e-commerce platform in principle, has the potential to transfer this strong market position to other markets such as online video streaming. A bundling of specific products is a strategic means to do so.³⁴⁴

Moreover, in Europe, Amazon offers express delivery for products bought on its e-commerce platform *exclusively* in a bundle together with a subscription to its video streaming platform in a package called Prime. Such a pure bundling strategy³⁴⁵ is particularly successful in leveraging market power as express delivery is an essential/attractive component for e-commerce, which is not available without subscription to Amazon's video platform.³⁴⁶

In summary, the problem at hand is that Amazon bundles exclusively its desired premium shipping service together with additional services (video and music streaming, but also cloud storage and eBooks) for a bundle price which seems to be subsidised. This has brought Amazon a number 2 position in Europe in the SVoD market directly after Netflix. In the short term, the low bundle price is attractive for customers, but in the long run, there might be issues.

In short:

- Amazon is the dominant e-commerce platform in Europe. Amazon started in 2005 in the US with its 2-day delivery Prime shipping service for a yearly fee of \$79. Other countries followed quickly. In 2018, Amazon surpassed 100 million subscribers of Prime worldwide.
- 84% of Prime customers consider the free Prime shipping service as the most important feature.
- Amazon is bundling this Prime shipping service exclusively in its Prime bundle.
- Prime Video was added exclusively to the Prime bundle from 2011 in the US and from 2014 in Europe (GER, UK, AT started).
- The importance of Prime shipping in Europe is illustrated by subscription rates. The subscription to Amazon Prime is between 3% and 6% in EU countries where Prime shipping is NOT available and between 9% and 43% in EU countries with Prime shipping available.

³⁴⁴The possibly anti-competitive consequences of tying or bundling have been the subject of a large volume of literature. A survey is provided by Rey, Patrick and Jean Tirole (2007), "A Primer on Foreclosure". Handbook of Industrial Organization, Volume 3. Ed. by Mark Armstrong and Robert Porter. Amsterdam: Elsevier, pp. 2145– 2220. There are a number of recent papers who examine how the theory should be modified to take into account the specific features of digital markets, see Choi, Jay Pil and Doh-Shin Jeon, "A leverage theory of tying in two-sided markets", mimeo, 2016, <https://msu.edu/~choijay/tying.pdf> and de Cornière, Alexandre and Greg Taylor, "Upstream Bundling and Leverage of Market Power", mimeo, 2018, https://idei.fr/sites/default/files/IDEI/documents/conf/CSIO2018/de_corniere.pdf.

³⁴⁵Pure bundling offers only the product bundle, whereas mixed bundling offers both the bundle and the individual components of the bundle.

³⁴⁶Pure bundling offers only the product bundle, whereas mixed bundling offers both the bundle and the individual components of the bundle. In the US Amazon sells both a standalone Prime Video offer and the bundle Amazon Prime.

- In Europe, Prime Video is the second most highly subscribed VoD service (25.5 million customers) directly behind Netflix (39.5 million), and is the number one VoD service in Germany.
- The current price for the Prime bundle is differentiated across European countries and ranges from €7.99 per month or €69 per year in Germany to €3.99 per month or €36 per year in Italy. Prime delivery and Prime Video appear to be generally cross subsidised; according to a calculation from Beyond devices, a yearly price of \$ 79 only covers a maximum 68% of Amazon's shipping costs and, in addition, the per subscriber costs for Prime Video are estimated to be at least \$ 60 per year. A standalone subscription for Prime Video costs \$ 9 per month.
- The low price of Amazon Prime is confirmed by the fact that 41% of US customers indicate the better price-performance as the reason to choose Prime Video
- 39% of US customers indicated that the original content was a reason to choose Prime Video. The importance of original content is also confirmed by the fact that 87% of Prime Video subscribers are also subscribed to Netflix.
- However, margins have been very thin for Amazon; despite that its worldwide revenue more than doubled since 2014 to around \$ 281 billion, only from 2016 onwards did its net income increase significantly (to \$ 11.6 billion in 2019) and still amounts to only 4% of revenue.
- Amazon seems to use its scale and dominance from e-commerce to gain market share in the SVoD market, which may lead to issues in the long run for consumers.
- The recommended approach is to analyse in detail whether Prime shipping service and Prime video are indeed cross-subsidised (and in that respect also the bundled eBook and cloud storage) and to observe the developments in not only the SVoD market as it is still emerging with new entrants Disney+ and Hulu, but also the cloud storage and eBook markets.
- Depending on the legal basis and market developments, remedies could be to ban certain bundling, to provide services at cost-base plus up to the strongest remedy to require separation of the business units of Amazon in Europe.

Amazon has a strong market position in e-commerce

With a market capitalisation³⁴⁷ of \$ 1,536.8 billion as of 8 July 2020 (Refinitiv Datastream)³⁴⁸ the tech company Amazon was the most valuable company in the world. Roughly 70 per cent of Amazon's turnover in 2019 was generated in e-commerce. Amazon offers buyers convenience, good prices, fast delivery and a vast selection.³⁴⁹ The German Amazon e-commerce platform continued to be number one in the German market with a turnover of almost €9.3 billion in 2018 out of €57.8 billion in German total e-commerce revenue, far

³⁴⁷Market capitalisation, commonly called market cap, is the market value of a publicly traded company's outstanding shares. Market capitalisation is equal to the share price multiplied by the number of shares outstanding. Since outstanding stock is bought and sold in public markets, capitalisation could be used as an indicator of public opinion of a company's net worth and is a determining factor in some forms of stock valuation. (See https://en.wikipedia.org/wiki/Market_capitalization last download 31.07.2020).

³⁴⁸See Der Spiegel, Nr. 29, 11.07.2020, page 69.

³⁴⁹"For many online shoppers in the United States and abroad, Amazon is at the core of their online shopping experience. When asked about the most important platforms when first researching products online, 66 per cent of U.S. Amazon users stated that they started their search on Amazon, ahead of search engines (20 per cent) or even the brand website (four percent). The key reasons for U.S. users to shop via Amazon were price and low shipping costs." See <https://www.statista.com/statistics/639155/popular-amazoncom-sales-by-category/> last download 08.08.2020.

ahead of Otto (€ 3.2 billion) and Zalando (€ 1.4 billion). The outstanding market position of Amazon continued to grow significantly during the Corona pandemic with growth rates of 40% worldwide. The resulting financial resources open up the possibility for Amazon to be active and successful in other markets such as cloud services, video streaming, audio streaming, electronic books etc.^{350,351}

Amazon Prime as a bundled offer

The Prime Programme was launched in 2005 and is available internationally. In the United States, access to Prime Video is available through a video-only membership, which does not require a full Prime subscription. (However, 82 per cent of US households are subscribers of Amazon Prime)³⁵². In Europe, the Prime offer is currently as follows (reference to the German offer): for a monthly price of € 7.99 or a yearly subscription price of € 69 (to be paid in advance, corresponding to an amount of € 5.75 per month) the following services are included: free Prime Shipping, Prime Video for free, Prime Music for free, one download of an electronic book by Kindle, unlimited photos on Amazon Drive and early access (30 minutes in advance) to special offers.³⁵³ Seventeen million of 41 million households in Germany are subscribers of Amazon Prime.³⁵⁴ The complete description of the Amazon Prime offer in Germany and Austria is presented in the subsequent figure.

Figure 76. The Amazon Prime Offer in Germany and Austria

amazon prime Germany and Austria	<input type="radio"/> Prime (Monthly)	<input checked="" type="radio"/> Prime (Annual)
	EUR 7.99/month	EUR 69.00/year Equivalent to EUR 5.75/month
Free Premium Delivery with Amazon Prime	✓	✓
Watch unlimited movies and TV shows with Prime Video	✓	✓
Over two million songs and football live. At home, on the way and ad-free.	✓	✓
Save it once. See it everywhere.	✓	✓
Best Annual Value		✓

Source: Amazon³⁵⁵

The focus of the present case study is on the market for online video streaming. Amazon Video is an online video-on-demand service that is developed, owned, and operated by the e-commerce platform provider Amazon. Amazon Video offers television shows and films for rent or purchase. In contrast, Prime Video offers only a selection of licensed acquisitions and Amazon Studios original content which is included in the overall Prime subscription (flat rate). The films which are available via Prime Video vary over time due to licensing restrictions.

Amazon offers its Prime subscription as a bundled product: this offer might be seen from the start as a means to enter into (respectively penetrate) the video-streaming market which at that time was dominated by Netflix. To leverage its strong position in the e-commerce

³⁵⁰More details about Amazon are presented in the subsequent section.

³⁵¹In the first quarter of 2020 this area created an operating result of 3.4 Billion Dollar in this section <https://www.spiegel.de/wirtschaft/unternehmen/amazon-profitiert-stark-in-der-coronakrise-40-prozent-mehr-umsatz-a-79e7b2b2-e9f3-4ec7-8b28-79d31a60933f> last called 31.07.2020.

³⁵²See Der Spiegel, Nr. 29, 11.07.2020, Himmel und Hölle, page 72.

³⁵³See https://www.amazon.de/amazonprime?_encoding=UTF8&ref_=nav_prime_try_btn last called 31.07.2020.

³⁵⁴See Der Spiegel, Nr. 29, 11.07.2020, Himmel und Hölle, page 72.

³⁵⁵See

https://www.amazon.de/amazonprime?%2AVersion%2A=1%2Aentries%2A=0&ie=UTF8&language=en_GB last download 01.08.2020.

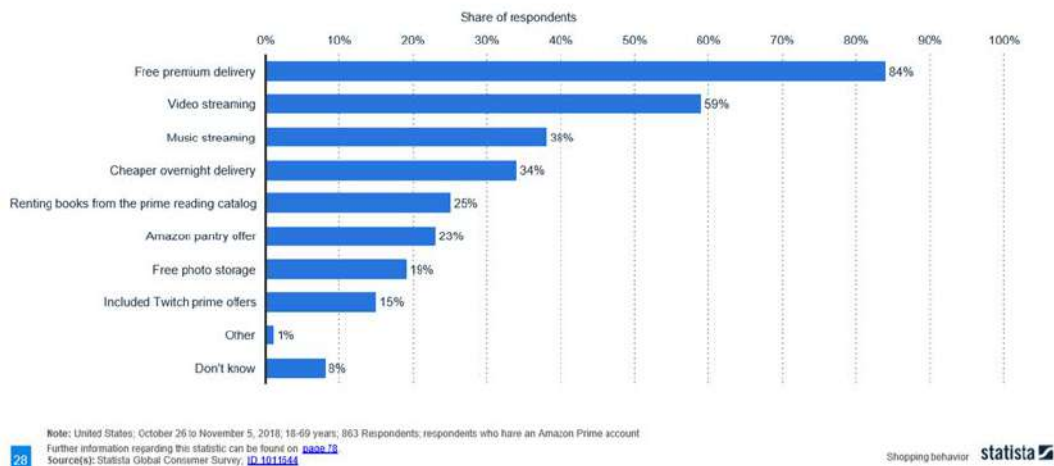
market, Prime video is automatically included in the bundle with free express shipping and early access to specific sales in the Prime subscription.

The case study demonstrates that Amazon’s strong market position in e-commerce enables this platform provider to leverage this power to enter other markets by bundling shipping benefits for its e-commerce service to its video streaming service. Such a leveraging of market power in case of such a platform is possible by choosing well designed (pure) bundled offers. The leverage of a strong market position in one market is reinforced in platform markets by the ability to interconnect the various services/platforms. The analysis here focuses on video streaming as an additional Prime service besides free shipping which, across Prime users, is considered as the most important additional Prime account feature (see the following figure).

Figure 77. Prime features by importance

What are the most important prime account features for you?

Amazon Prime features by importance in the U.S. 2018



Source: Statista.

With regard to Amazon Prime, Amazon has the possibility to launch a direct link on the sales platform (internet site or app) to other services/platforms such as Amazon Prime Video in a prominent spot on the website/app. The empirical evidence of the case under consideration here will support the hypothesis that such a leveraging of market power from the generic platform service to additional platform services is indeed possible and in the case of Amazon a fact. This may cause harm to innovation and competition.

ii. Legal context

Although there are several past and pending abuse of dominance cases in the EU against Amazon (see Annex 1), these cases have not specifically addressed tying/bundling of Amazon’s video (or music) streaming service to its Prime Delivery subscription service.

Competition authorities in the US and Canada are investigating Amazon but, at this stage, it is unclear whether Amazon Prime is among the focus areas of these investigations.

Amazon’s alleged practice of forcing third-party sellers on its online market place to use the company’s logistics services is discussed in Section f.ii.

When unconditionally clearing Amazon's acquisition of a 16% stake and “certain rights” in online food delivery company Deliveroo in a phase II merger review³⁵⁶, the UK competition authority considered a potential theory of harm that the parties could bundle their respective subscription services, i.e. include Deliveroo Plus within Amazon Prime, foreclosing (or preventing) either other food delivery companies or other suppliers of subscription services from competing with them. The authority dismissed this concern, mainly because the low level of Amazon’s shareholding in Deliveroo would reduce its incentive to fund a large discount that would be necessary to attract a large volume of customers, and consequently foreclose competitors.

iii. Characteristics of the platform concerned

Amazon: History and services offered

Amazon.com, Inc. was founded by computer scientist Jeff Bezos. The idea of an electronic bookstore was born together with the investor David E. Shaw, when Bezos worked in his financial company D. E. Shaw & Co. In 1994, he left the company to found Amazon.com in Washington State as an online bookstore. In July 1995, the company sold its first book on its Internet platform.

The company expanded to sell electronics, software, video games, apparel, furniture, food, toys, and jewellery over time. In 2015, Amazon surpassed Walmart as the most valuable retailer in the United States by market capitalisation. In 2017, Amazon acquired Whole Foods Market for US\$13.4 billion, substantially increasing Amazon's footprint as a physical retailer in the US.

Amazon’s expansion was not only driven by expanding its retail business to different categories, but by its successful Prime service as well. In 2005, Amazon announced Amazon Prime as a membership service offering free two-day shipping within the United States on all eligible purchases for an annual fee of \$79.³⁵⁷ Amazon launched the program in Germany and the United Kingdom in 2007; in France in 2008 and in Italy in 2011. In 2018, Bezos announced that its two-day delivery service, Amazon Prime, had surpassed 100 million subscribers worldwide.

Amazon debuted its video service under the label “Amazon Unbox” in 2006 in the US, which was two years later rebranded as “Amazon Video on Demand”. In early 2011 Amazon added access to 5,000 movies and TV shows for its Prime subscribers under the label “Prime Instant Video”. The service launched in 2014 in Germany, the UK and Austria and has been available to all Amazon Prime subscribers worldwide since December 2016. Today, Amazon offers a larger video and music streaming catalogue to its Prime subscribers, while access to additional content is charged extra.

Presently Amazon is comprised of over 100 business entities held across the world, many of which are affiliates of its e-commerce and media businesses.³⁵⁸ Amazon³⁵⁹ is an online marketplace, AI assistant provider, streaming platform and cloud computing platform company. According to Wikipedia it is the largest Internet company by revenue in the world and the second largest private employer in the United States and one of the world's most valuable companies. Amazon has a publishing arm, Amazon Publishing, a film and television studio, Amazon Studios, and a cloud computing subsidiary, Amazon Web Services (AWS). It produces consumer electronics including Kindle e-readers, Fire tablets, Fire TV, and Echo

³⁵⁶ The CMA decision of 4 August 2020 in case Amazon/Deliveroo merger inquiry <https://www.gov.uk/cma-cases/amazon-deliveroo-merger-inquiry>.

³⁵⁷ See http://www.slate.com/blogs/moneybox/2014/03/13/amazon_prime_price_increase_still_inexpensive.html

³⁵⁸ See <https://www.cbinsights.com/research/report/amazon-strategy-teardown/>

³⁵⁹ See [https://en.wikipedia.org/wiki/Amazon_\(company\)](https://en.wikipedia.org/wiki/Amazon_(company)) for the text of this paragraph.

devices. In addition, Amazon acquisitions include Ring, Twitch, Whole Foods Market, and IMDb. Among various controversies, the company has been criticised for technological surveillance overreach, a hyper-competitive and demanding work culture, tax avoidance, and anti-competitive practices.

Amazon's presence in Europe

Germany is Amazon's most important market in Europe. The German language website Amazon.de is operated by Amazon EU S.à r.l. in Luxembourg and went online on 15 October 1998.³⁶⁰ Customers from Austria, Switzerland and Lichtenstein use the German website with adjusted prices. Meanwhile Amazon has established a remarkable physical infrastructure as reflected by the number of logistics centres, parcel distribution centres and customer service centres distributed across Germany.³⁶¹ In Europe, Amazon is present under the following national domain names (see Table 26).

Table 26. European Domain names of Amazon

Country	Domain name	Since
France	amazon.fr	August 2000
Germany	amazon.de	October 1998
Italy	amazon.it	November 2010
The Netherlands	amazon.nl	November 2014
Spain	amazon.es	September 2011

Source: Wikipedia (see <https://de.wikipedia.org/wiki/Amazon> download as of 02.08.2020).

The number of employees of Amazon increased exponentially up to 798,000 employees worldwide at the end of 2019. Since the outbreak of Coronavirus, Amazon hired around 170,000 additional employees in the first seven months of 2020. In Europe, Amazon has the highest number of employees in Germany, 19,700 in 2019. As an EU Member State, France is in third place with 5,200 employees in 2019.

³⁶⁰See <https://de.wikipedia.org/wiki/Amazon> download as of 02.08.2020.

³⁶¹See <https://de.wikipedia.org/wiki/Amazon> download as of 02.08.2020.

Figure 78. Estimated number of Amazon employees in transport and logistics in European countries as of 2019



Source: Statista

Main economic data of Amazon

The following financial data provide evidence that Amazon was quite successful especially in recent years. Global net revenue increased from \$88.98 billion in 2014 up to \$280.53 billion in 2019. Most important is still the e-commerce business. Roughly 70% (online stores and retail third party seller services) of Amazon’s global revenue is generated by the e-commerce business. Prime subscription services became more and more important. Over the last six years Prime subscription revenue increased by roughly 700%. Revenues from Amazon’s web-based services also increased by a similar magnitude (around 750%) from 2014 to 2019 and now contribute more than 12% to Amazon’s total revenue.

Table 27. Global net revenue of Amazon from 2014 to 2019, by product group (in billion US dollars)

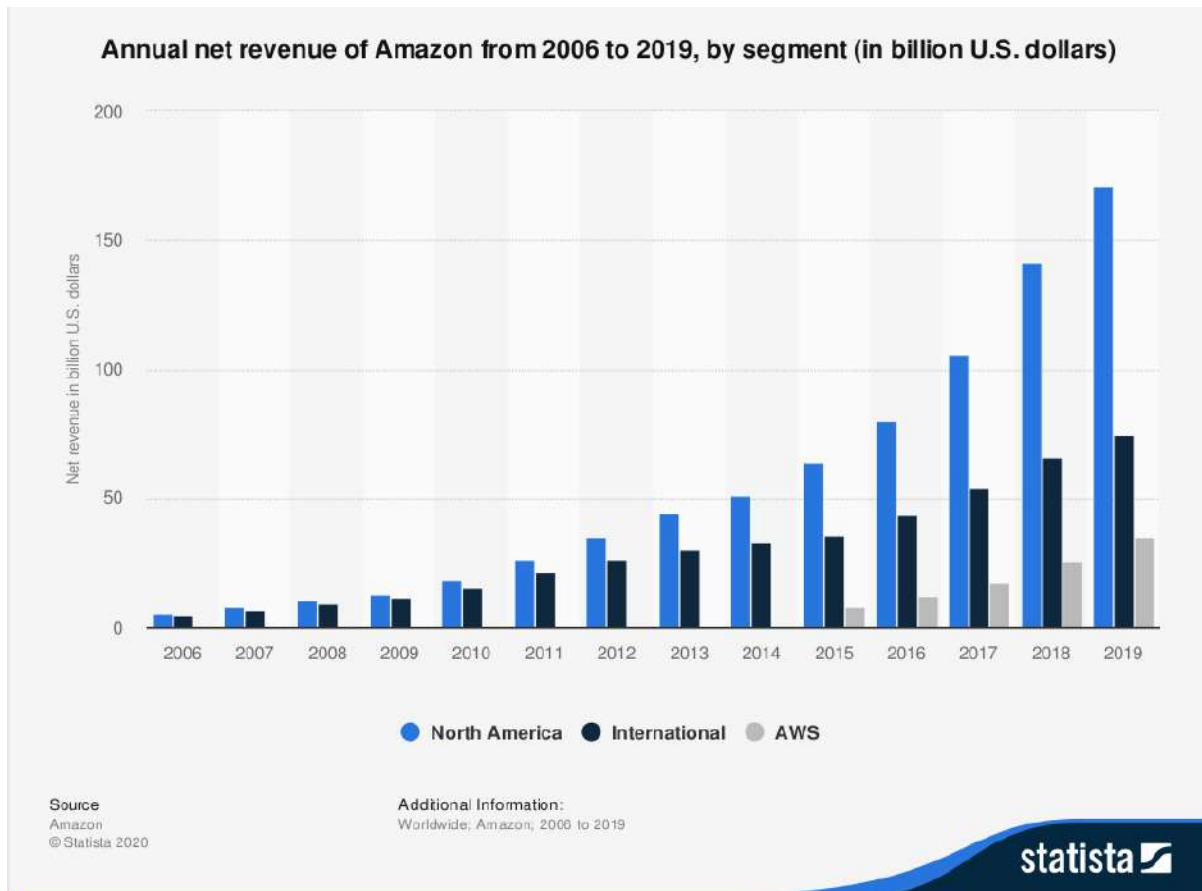
	Online stores	Physical stores	Retail third-party seller services	Subscription services	AWS	Other	Total
2014	68.51	-	11.75	2.76	4.64	1.32	88.98
2015	76.86	-	16.09	4.47	7.88	1.71	107.01
2016	91.43	-	22.99	6.39	12.22	2.95	135.98
2017	108.35	5.8	31.88	9.72	17.46	4.65	177.86

	Online stores	Physical stores	Retail third-party seller services	Subscription services	AWS	Other	Total
2018	122.99	17.22	42.75	14.17	25.66	10.11	232.9
2019	141.25	17.19	53.76	19.21	35.03	14.09	280.53

Source: Statista³⁶²

The following figure demonstrates that Amazon’s net revenue increased exponentially in recent years. The Corona months of 2020 are not yet included in this calculation.

Figure 79. Annual net revenue of Amazon from 2006 to 2019

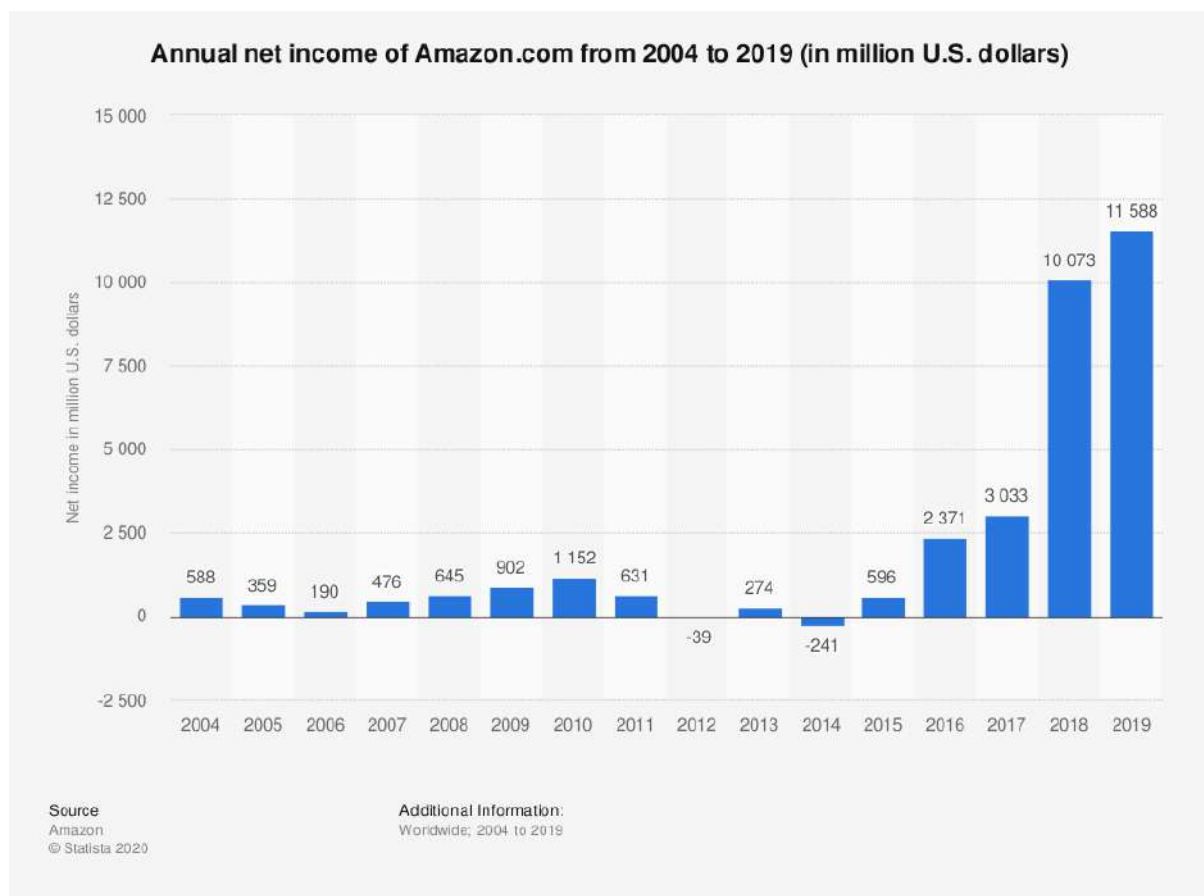


Source: Statista

³⁶²Definition of Services as remarked by Statista: *Online store*: We leverage our retail infrastructure to offer a wide selection of consumable and durable goods that includes media products available in both a physical and digital format, such as books, music, videos, games, and software. These product sales include digital products sold on a transactional basis. Digital product subscriptions that provide unlimited viewing or usage rights are included in Subscription services. *Physical stores*: Includes product sales where our customers physically select items in a store. *Retail third-party seller services*: Includes commissions, related fulfillment and shipping fees, and other third-party seller services. *Subscription services*: Includes annual and monthly fees associated with Amazon Prime membership, as well as audiobook, e-book, digital video, digital music, and other non-AWS subscription services. *Other*: Includes sales not otherwise included above, such as certain advertising services and our co-branded credit card agreements.

In contrast, Amazon’s annual net income has only risen exponentially since 2016. Before 2016, and therefore for the majority of the time since the company was founded, margins were very thin, despite Amazon’s astounding growth. Therefore, Amazon has been accused of predatory pricing.³⁶³ However, the money used to continue its business expansion stemmed not from investors, since Amazon has not raised equity financing since 2003. Furthermore, the company’s net debt has been almost zero or even negative for its entire history, with the only exception being the Whole Foods acquisition. Amazon simply re-invested every Euro/Dollar it earned to grow and expand its business in a rapid pace. However, it cannot be excluded that Amazon might have cross-subsidised loss-leader products with other revenues from other retail products, which can drive specialised competitors out of the market or put Amazon in a better bargaining position for acquisitions (e.g. Diapers.com)

Figure 80. Annual net income of Amazon from 2004 to 2019



Source: Statista

Amazon: The Video Streaming Service

At the global level

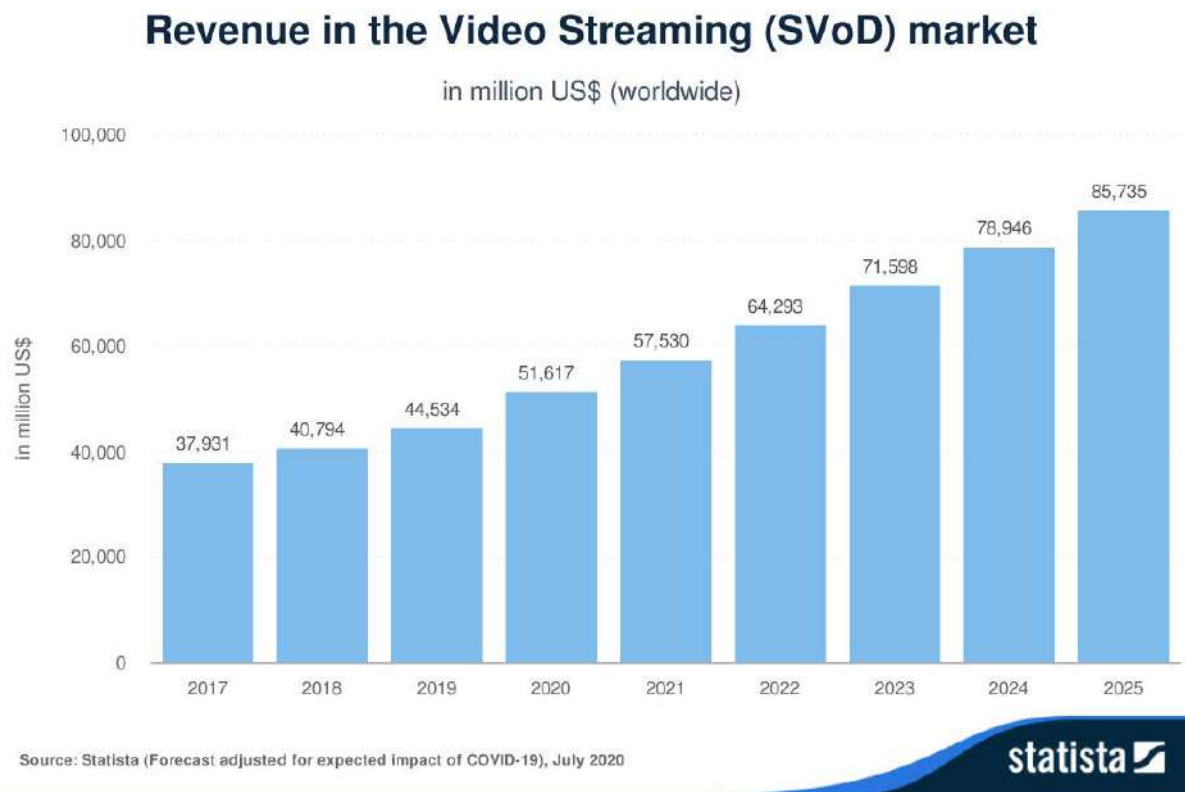
According to Statista, ever since Netflix³⁶⁴ expanded its operations to streaming media in 2007, video-on-demand streaming has become a phenomenon. Along with Netflix,

³⁶³Khan, L. M. (2016). Amazon's antitrust paradox. *Yale IJ*, 126, 710.

³⁶⁴The Netflix offer in the UK is available at <https://www.netflix.com/de-en/> last download 05.08.2020.

companies like Amazon and Hulu³⁶⁵ have created a new market that is changing the way people view movies, TV shows, and video content in general. As of 2017, Amazon’s video-on-demand service, Amazon Prime Video³⁶⁶, occupies the second position in the growing video-on-demand industry, with around 112 million subscribers (December 2019) in the United States.³⁶⁷ As the market expands and demand increases, companies have begun to produce their own original content. Amazon produced 23 new digital original series in 2017 alone, a number which has been increasing since the company released its first block of original programming in April 2013.

Figure 81. Revenue in the Video Streaming (SVoD) market



Source: Statista.

The number of users of video streaming reached a level of 882 million in 2020 worldwide and is expected to increase up to 1,337 billion users by 2025 (according to Statista forecasts). Due to the Coronavirus, the growth of video streaming services like Netflix and Amazon Prime Video has increased. Recently launched new services such as Apple TV+ or Disney+ might attract new customers. Statista assumes that the adoption of such services will soon reach its peak, especially in developed countries.

³⁶⁵The Hulu offer in the US is available at https://www.hulu.com/welcome?orig_referrer=https%3A%2F%2Fwww.bing.com%2Fsearch%3Fq%3Dhulu%2Bus%26form%3DEDGEAR%26qs%3DPF%26cvid%3D3a12cd5cefce45a1a36e07fd12bb4ac8%26cc%3DDE%26setlang%3Dde-DE%26plvar%3D0 last download 05.08.2020.

³⁶⁶The Amazon Video offer in the UK is available at <https://www.amazon.co.uk/Amazon-Video/b?ie=UTF8&node=3010085031> last download 05.08.2020.

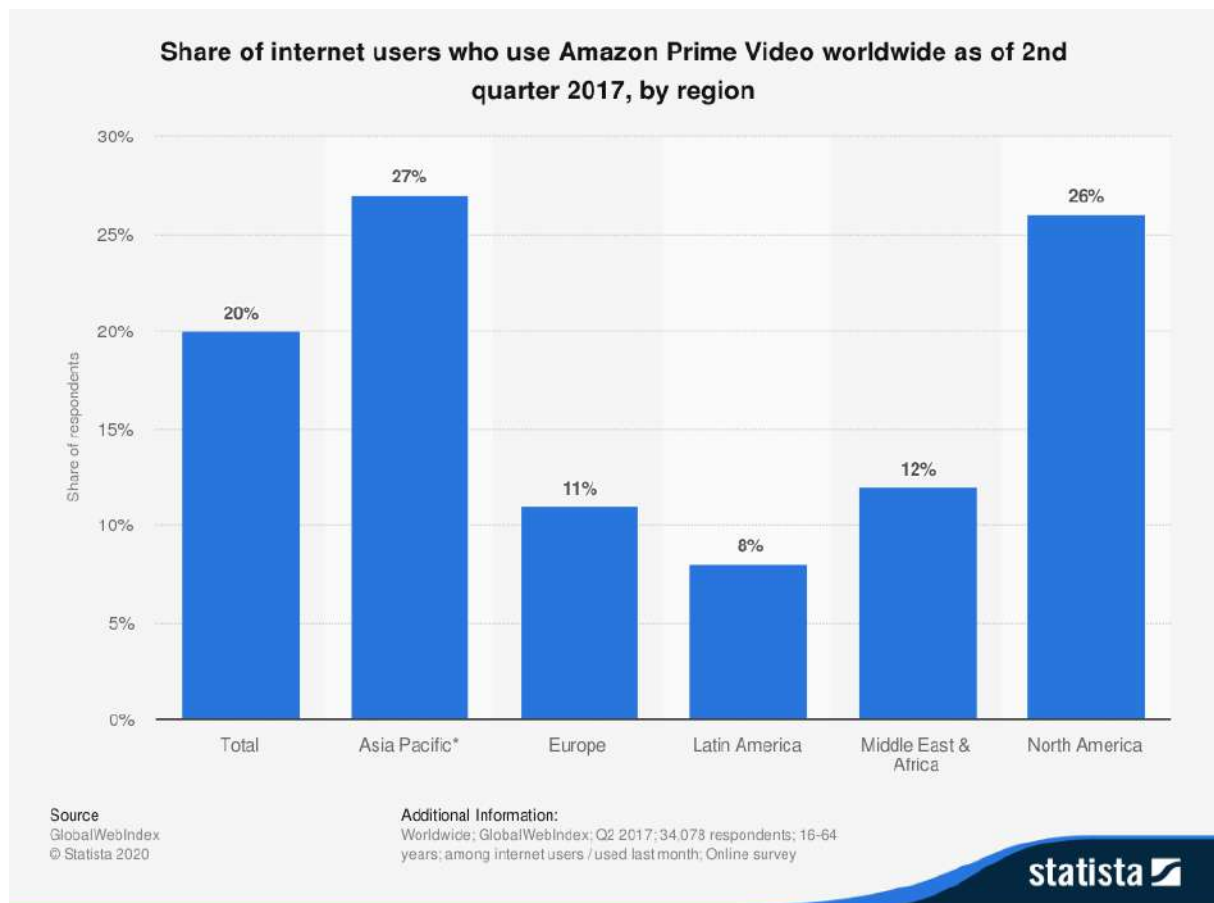
³⁶⁷See <https://www.statista.com/statistics/546894/number-of-amazon-prime-paying-members/> and <https://www.statista.com/statistics/250934/quarterly-number-of-netflix-streaming-subscribers-worldwide/>

The following figure presents the currently most popular Video Streaming Services around the world. Neglecting regional offers, Netflix and Amazon Prime are by far the most important global video streaming services. However, at the end of November 2019, Netflix had twice as many subscribers worldwide as Amazon Prime Video. Therefore, the focus of this case study is on Netflix as a benchmark to Amazon Prime and Prime Video.

Figure 82. Video streaming service with most subscribers as of November 2019

Source: Statista.

Figure 83. Share of global Internet users using Prime Video (2017)

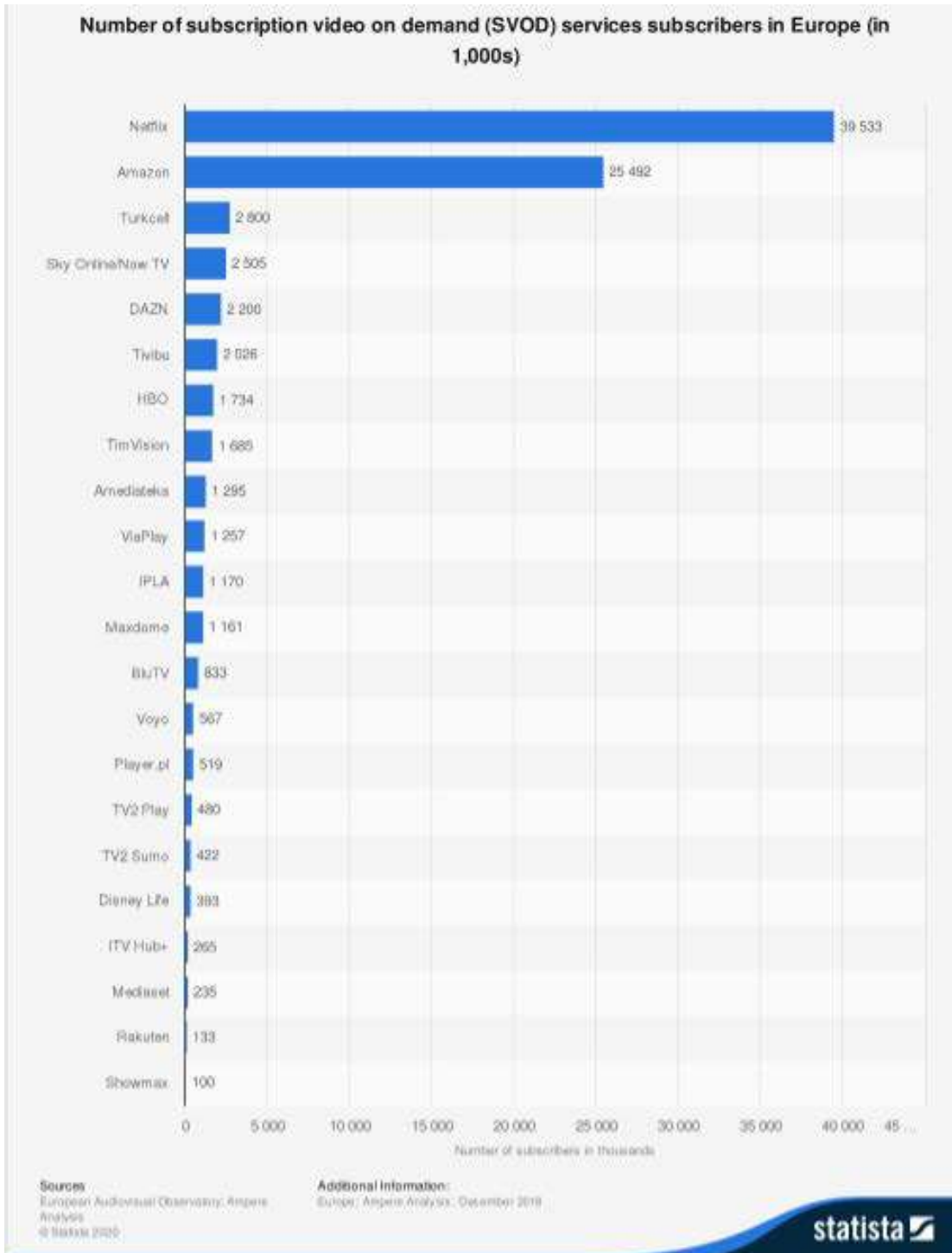


Source: Statista.

At the European Level

In Europe, the situation is quite similar to the US. In Europe, Netflix and Amazon are by far the two main video streaming providers with the highest subscription rates. With more than 39 million subscribers in 2020, Netflix is significantly ahead of Amazon. However, in some European markets (like Germany), Amazon Prime is ranked first, with nearly the same number of subscribers as Netflix in 2020.

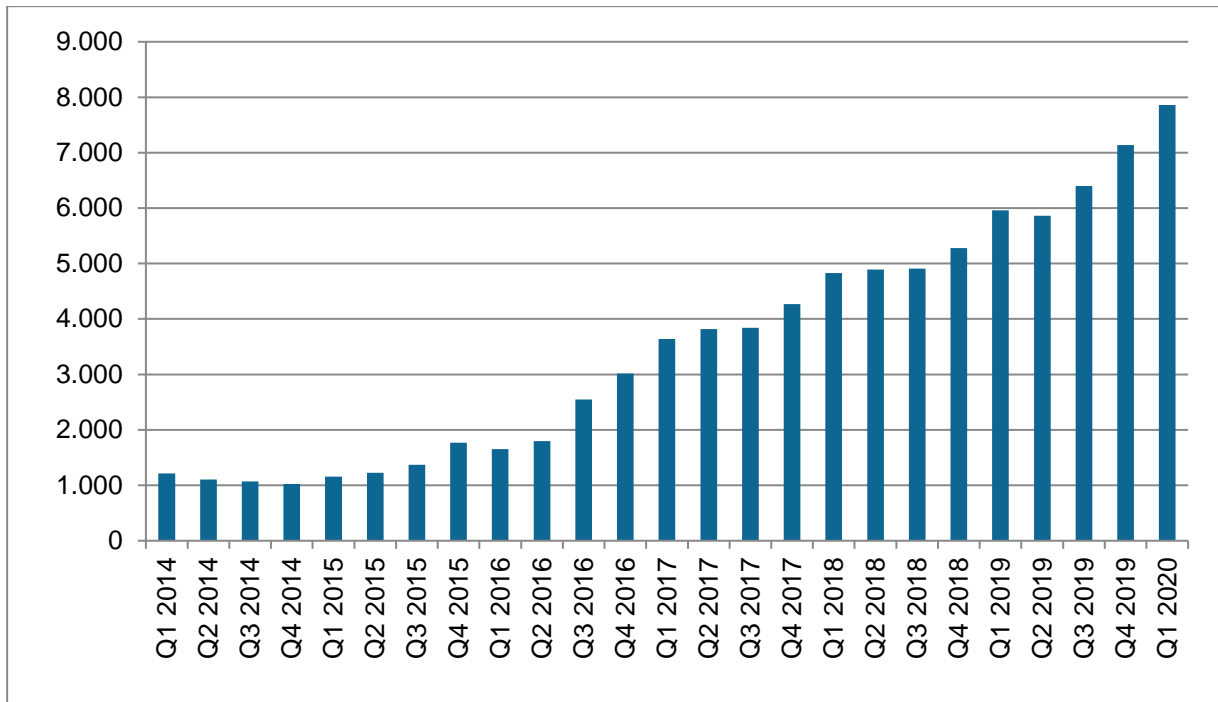
Figure 84. Number of subscription video demand (SVOD) services subscribers in Europe



Source: Statista.

The following figure describes how the households that use Amazon Prime in the UK developed over time.

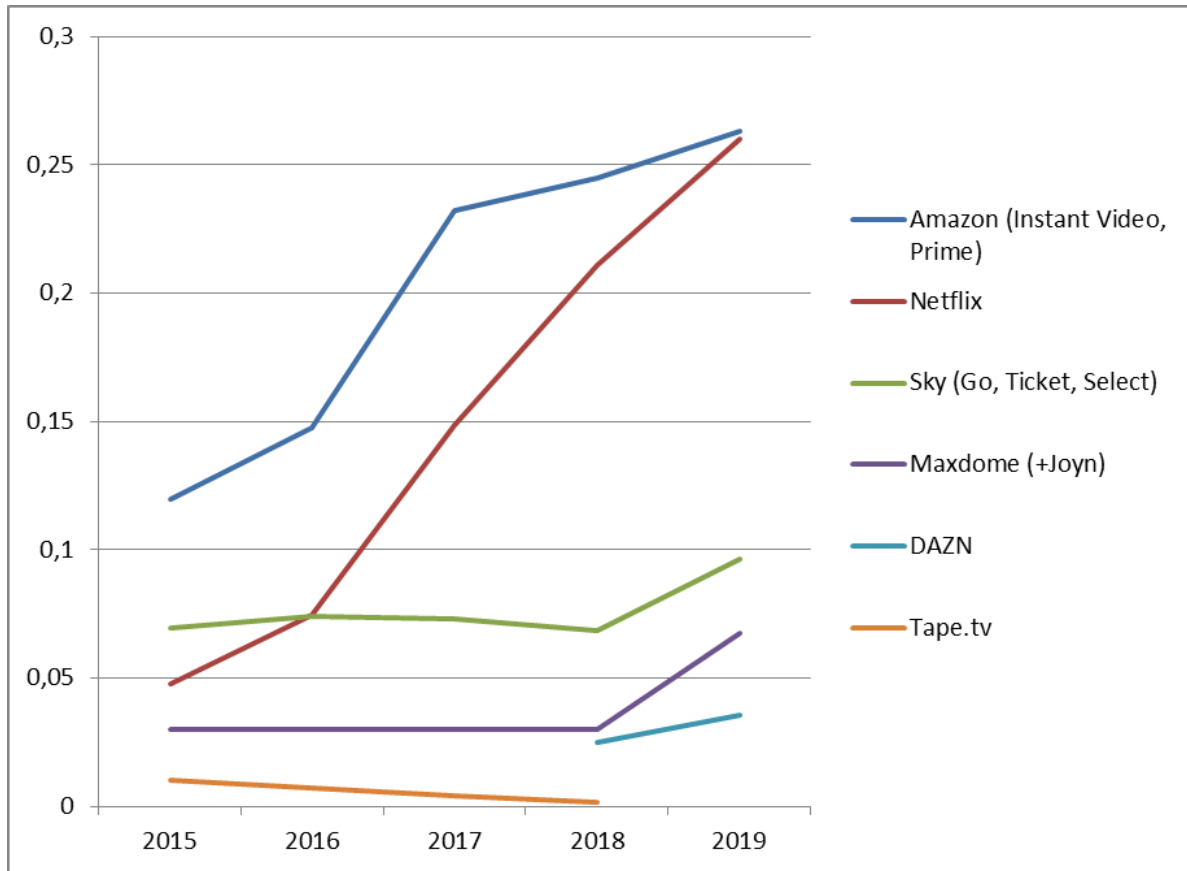
Figure 85. Amazon Prime Video households in the United Kingdom (UK) Q1 2014-Q1 2020 in million (published May 2020)



Source: barb.co.uk

A consumer survey conducted by WIK-Consult shows that Amazon Prime is more used than Netflix in Germany. Figure 85 displays not only that Amazon Prime has the largest user base in the survey, but also the general increase in demand in the segment of VoD-streaming from 2015 to 2019.

Figure 86. Most used VoD brands in Germany



Source: WIK –Consult (Survey Question: Which of the following on-demand services or Internet offers of the TV stations have you used in the last 30 days, no matter on which end device? (Multiple selection possible), Sample size: 850-2500 Persons)

In total, Amazon Prime has 17 million subscribers in Germany.³⁶⁸

Amazon: Reasons to adopt Amazon's Prime Video

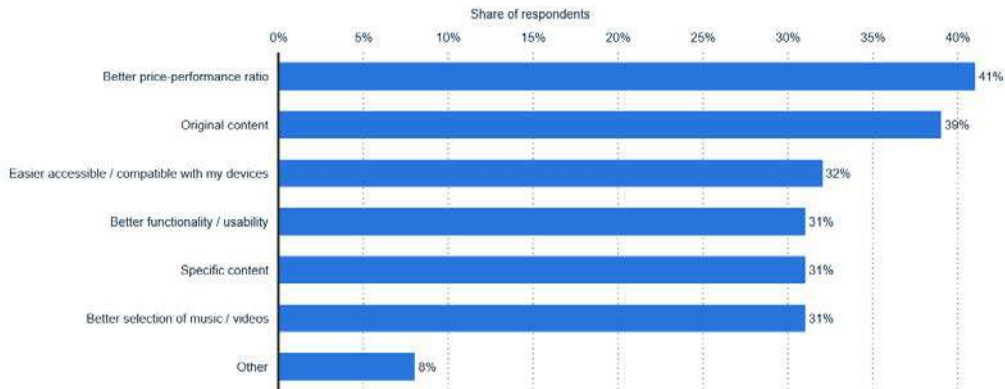
This case study aims at deducing the reasons for Amazon achieving such a high penetration within just a few years. The pricing scheme of the product bundle makes Amazon Prime Video generally attractive for users. Further, Statista's Global Consumer Survey (see Figure 86) identifies core aspects in this regard which are a better price-performance ratio, followed by Amazon Video's original content (expressing that Amazon offers good quality) and its comfortable and convenient use. It has a high functionality and easy accessibility not least because of its compatibility with all devices. In line with Amazon's philosophy it is designed to make usage easy and comfortable for consumers.

³⁶⁸See Der Spiegel, Nr. 29, 11.07.2020, Himmel und Hölle, page 72.

Figure 87. Drivers for Amazon Prime usage in the US 2018

What made you choose Amazon Video over other competitors?

Drivers for Amazon Prime usage in the U.S. 2018



Note: United States, October 26 to November 5, 2018; 18-69 years; 487 Respondents, respondents who use Amazon Prime
 Further information regarding this statistic can be found on [page 76](#)
 Source(s): Statista Global Consumer Survey; [IQ 1011607](#)

Shopping behavior **statista**

Source: Statista.

Multi-homing is when a consumer uses several platforms simultaneously. With regard to video streaming, this is the case when a user subscribes to content on both Amazon Prime and Netflix. Multi-homing indicates that the video platforms are different in their offerings. In the language of economists, these have to be considered as heterogeneous goods. Multi-homing can empirically be observed in the video streaming market. In the US, 82% of subscribers used Netflix, 65% Amazon Prime Video and 51% Hulu.³⁶⁹ Further, 87% of Amazon Prime Video users also subscribed to Netflix.

Figure 88. SVoD services multiple subscriptions in the U.S. 2020

Share of subscription video on demand (SVoD) subscribers who also subscribe to other services in the United States in June 2020, by service

SVoD service multiple subscriptions in the U.S. 2020

	also subscribe to Netflix	also subscribe to HBO Now	also subscribe to HBO Max
Netflix	-	32.95%	8.87%
HBO Now	89.36%	-	10.03%
HBO Max	92.94%	62.29%	-
Amazon Prime Video	86.62%	41.78%	11.15%
Disney+	88.75%	45.43%	13.44%
Hulu	85.92%	46.57%	13.30%
Apple TV+	91.35%	67.46%	20.07%

wik
CONSULT

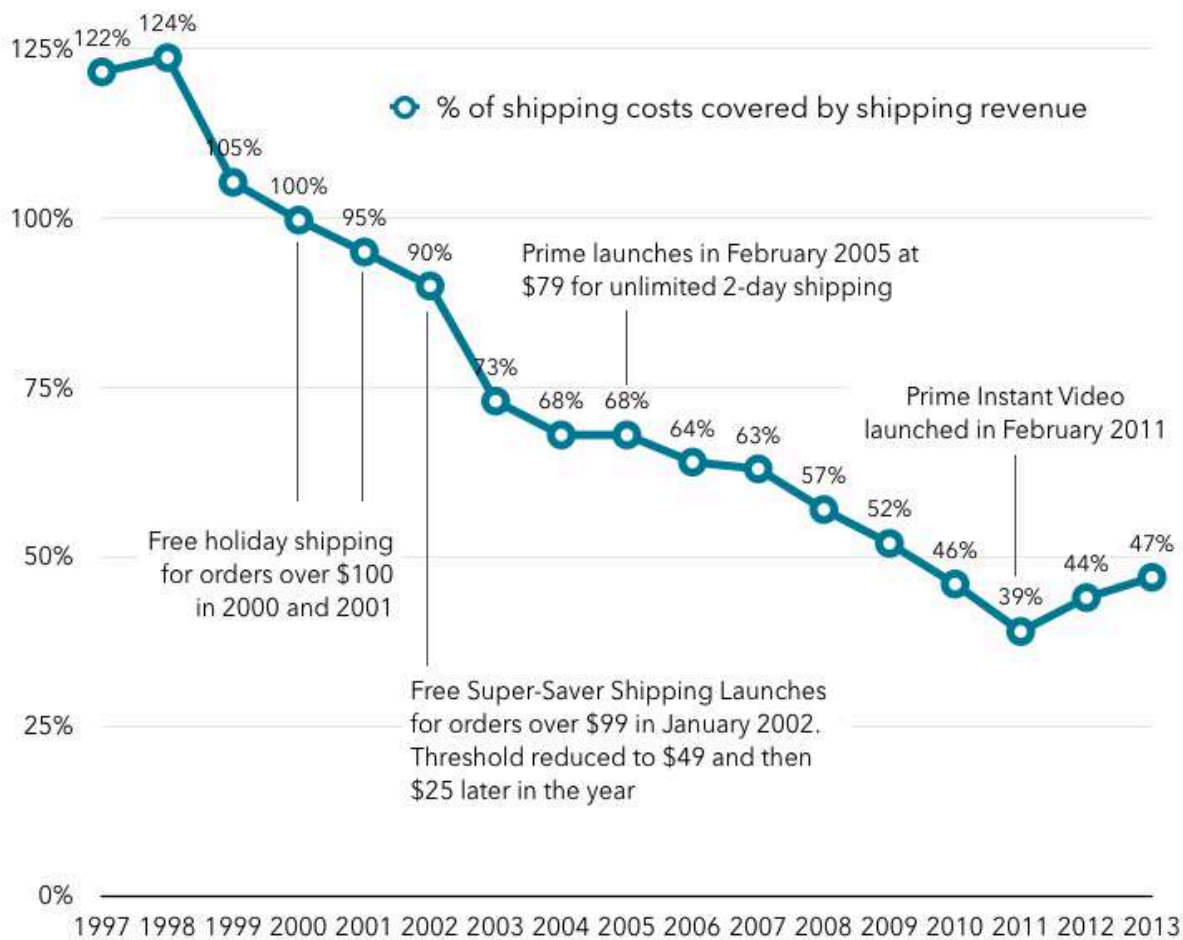
³⁶⁹“Studies show that the majority of households in the US have not just one, but multiple streaming services. 54% of CCN Readers Bundle Amazon Prime and Netflix.” see <https://www.cordcuttersnews.com/54-of-ccn-readers-bundle-amazon-prime-and-netflix/>

Amazon: Analysis of Amazon’s strategy in the video streaming market

Prime Video appears to be cross-subsidised

Beyond Devices³⁷⁰ provides some calculations that strongly suggest that Amazon Video does not cover its costs. Based on data available from Netflix, the cost per subscriber was derived from Amazon Video. The implicit assumption was that both Netflix and Amazon Video offer a similar service. Taking into account the different number of Amazon Video and Netflix subscribers, Amazon Video's per-subscriber cost was calculated at \$60 to \$80 per year. At that time, the annual subscription fee for Amazon Prime was \$79, and since "Amazon was already losing money by sending Prime (see table below) before adding instant video to the offering, adding instant video pushed the offering much further into the red".

Figure 89. % of shipping cost covered by shipping revenue



Source: <http://www.beyonddevic.es/2014/02/03/amazons-prime-problem/>

In addition, the authors pointed out that the standalone monthly Prime Video service Amazon offers comes in at \$9, suggesting that without the benefits of free shipping, it needs to recoup far more like the total real cost of providing the streaming service.

Low adoption in countries with a limited (in terms of free shipping) Prime Offer

The following analysis provides evidence that the adoption and use of Prime Video is lower if there is no cross-subsidisation via a comprehensive Amazon Prime bundled offer as, for

³⁷⁰See <http://www.beyonddevic.es/2014/02/03/amazons-prime-problem/>

example, available in Germany or Italy. In several European countries, the Amazon Prime offer is quite limited in terms of free shipping. In these countries in which free shipping is not included in the Amazon Prime offer, the adoption of Amazon Video is significantly lower as becomes obvious by the following figure.

Figure 90. Usage of Amazon Prime if shipping is available or not



Source: Global/Webindex, Q1 2020. Survey Question: In the last month, which of these services have you used to watch / download TV shows, films or videos? Please think about any sort of TV, video or film content that you have watched, streamed, downloaded or accessed in any other way. All answers but "Amazon Prime Video" are omitted in this figure. In Austria, Italy, Germany, Spain, France and Belgium, the full Amazon Prime Shipping Service is available (including "Amazon Same-Day-Shipping"). Amazon Prime customers in Austria and Belgium may use the Amazon.de store but get the same conditions as customers in Germany. For the other countries, Prime shipping is not available but Amazon Prime Video is, hence effectively, there is no product bundling in these countries.

Source: Global/Webindex

Pricing below costs to penetrate the market (penetration pricing)

A highly used trading platform like Amazon has access to a large range of individual user profiles, which allow it to generate valuable information for offering tailored different products and services and marketing/sales activities through intelligent analysis. They can also shift large amounts of current platform users to the use of other services and applications like Prime Video. With a cross-subsidised offer, here prices below costs for the video streaming service, Amazon gained significant numbers of subscribers for its service and reached a remarkable market share in comparison to the incumbent Netflix.

Initially this is to the benefit of the consumers which have access to an additional video streaming service at low cost. However, customers are likely to be harmed when taking a long-term view. The resulting harm to consumers, although less obvious, is due to a reduction in long-term competitive forces in the video streaming market. The latter stifles innovation and reduces consumer choice. The video streaming only providers may be squeezed out of the market. In the future, Amazon could use this market structure to charge significant higher prices, to compensate for the losses the company has suffered in the past due to predatory pricing.

Thus, it makes sense from a competition policy point of view to take action in presence of such a bundling strategy by a platform which obviously has an outstanding market position in online e-commerce.

Conclusion

We derive the following conclusions from the case study 1

- The previous figures provide strong evidence that Amazon gained a significant number of subscribers on the video streaming market both in the US and

Europe, especially the main European markets Germany and UK, within several years.

- Amazon was able to successfully establish itself alongside the incumbent Netflix in the video streaming market.
- Users consider Amazon Prime to be an attractive offer. It seems reasonable to conclude that tying these services was one of the main reasons for Amazon's success in the video streaming market.
- Amazon Video seems to be cross-subsidised. The current success of Amazon Prime Video seems to be due to penetration pricing.
- The video-streaming market in Europe is still considered as being attractive for newcomers as the recent (announcement of a) service launch by Disney+ and Hulu indicates.
- Competition authorities have to be cautious to prevent Amazon Video from becoming a dominant firm in the video streaming market in the long run via a cross-subsidised offer as it seems to be currently the case with the Amazon Prime offer.

iv. Evidence of the problem and associated harms

With its Prime Offer, Amazon now counts subscribers in more than 70 % of households in the United States. The tying of e-commerce with other services at attractive prices for the bundle has resulted in the Federal Trade Commission asking whether this bundling of services with the Amazon Prime offer allows Amazon to unfairly undercut competitors. One line of thinking: If Amazon doesn't need to profit directly from the annual Prime membership fee — and it's not clear that it does — how are competitors who have to make money from an individual service supposed to compete on price? Thus the question arises, whether Amazon will be able in the long-run to dominate the video-streaming service market by pursuing such a bundling price strategy. Thus, even if at the moment there is no strong indication that Netflix will not survive as a main player or that Disney+ or Hulu will be not successful in entering the video streaming market in Europe by earning a reasonable profit in the medium term, it cannot be ruled out that Amazon Video will be successful in dominating the video streaming market in the medium or long term. If the latter were the case, users of video streaming service are vulnerable to harm by such a dominant position. In consequence they would face a lower number of providers, less diversity of services and higher prices due to market power of the remaining player(s). Innovation in this market would be hampered.

To prevent such a potential negative scenario, it would be worth investigating whether the video market gets harmed by a bundled product like Amazon Prime even though it currently seems to be quite attractive for a Prime subscriber. If it turns out that this could be the case, this might justify a competitive intervention. Such an intervention should create a level playing field for all firms competing in the video streaming market.

v. Solutions and impacts

On the basis of the preceding analysis, a final assessment of the situation is not yet possible. As already mentioned above, a more detailed investigation should be carried out to determine whether Prime Video is in fact cross-subsidised and to what extent. Such a detailed examination, which requires extensive financial company data from Amazon Prime, is beyond the scope of this study. If cross-subsidisation in favour of Amazon Video does exist, it should be considered which remedies are to be imposed, if there is a corresponding legal basis. Such requirements could include a ban on bundled offers with regard to Amazon Video. In an extreme case, a functional or even structural separation of the business units could also be envisaged with regard to Prime Video. Competition policy or regulatory

intervention should always be proportionate. Separations should therefore only be envisaged if the other measures are not deemed to be effective.

As the previous analysis has shown, the video streaming market in Europe is still an emerging market. The market entry of Disney+ and the announced market entry of Hulu for 2021 and the growing number of video streamers in Europe provide strong empirical evidence for this thesis. It therefore remains to be seen how the market develops.

Furthermore, in September 2020 Apple announced to launch Apple One which is a subscription based product bundle and includes services of iCloud, Apple Music, Apple TV+, Arcade, News+, and the newly announced Fitness+.³⁷¹ The product configuration is therefore similar to that of Amazon's Prime subscription and is based on the attractiveness of its cloud storage and video- and audio streaming services. With its launch on October 30th 2020 it should be a relevant and competing service to Amazon's Prime product portfolio. However, after a first evaluation of Apple One's subscription prices, it seems as if the price discount is by far not comparable to that offered by Amazon Prime. Hence, it is unclear whether Apple actively cross-subsidises specific products as part of a bundle to strategically strengthen its competitive position in the corresponding market segments. From today's point of view the underlying intention is about a reduction of consumer's transaction costs through aggregation and offering a moderate quantity discount. Nevertheless, it could be seen as a strategic market driven answer to the ever more frequent bundling and tying activities not only by Amazon but also other market players.

c. Case 2: Unjustified tying and bundling – Google advertising ecosystem

Traditionally, advertising space in newspapers, television and other mediums was traded via in-person negotiations. In recent decades, the internet and digital platforms have enabled a very different system to develop. Today, most online display advertising is bought and sold in real time via advertising exchanges. These function via intermediaries that route buy and sell orders from buyers (advertisers) and sellers of ad space (e.g. publishers like newspaper websites).

In this context, Google has come to dominate online advertising (Srnivasan, 2020), and its ecosystem is ubiquitous and interconnected with many services that control majority shares in their respective markets. Google's advertising is present across many platforms including services or applications (Search, Play, YouTube, Maps, etc.) on a variety of mediums (desktop computer, tablet, smartphone) and operations systems.

The present case study examines Google's advertising ecosystem, focusing on tying and bundling practices related to various ad services across all Google services and platforms.

i. What is the problem/s associated with this case?

This case study focuses on 'tying', which refers to a seller refusing to provide one product (the tying product) unless a customer also purchases another product (the tied product) (Ellig and Ellig, 2001)³⁷². **Sellers may implement tying with contractual provisions or technological protocol**, such that the tying and tied product are integrated or designed to only work together. Tying is of concern because it may have exclusionary effects, preventing competition in an otherwise competitive market, and protecting dominance in the tying product market. For further information on economic effects and welfare implications of tying practices we refer the interested reader to Section a.i.

³⁷¹ See the news coverage of Mashable.com under: <https://mashable.com/article/apple-event-2020-apple-one/?europa=true>

³⁷² Ellig, Jerry and Jerome Ellig (2001), *Dynamic competition and public policy: Technology, innovation, and antitrust issues*, Cambridge University Press.

ii. Legal context

Concerns about Google’s market power in online advertising have been identified in: sector inquiries conducted by some European national competition authorities; during merger proceedings (e.g. *Google/DoubleClick*³⁷³); the ongoing investigation by the Italian competition authority into Google’s practices in the display advertising market³⁷⁴; and the European Commission’s 2018 *Google Android*³⁷⁵ decision (appealed), a closely related case because Google’s anticompetitive strategy, which included tying, had as its objective and effect to protect and strengthen Google’s dominant position in general search services and, therefore, its revenues from search ads. In October 2020, the United States DoJ, together with eleven state attorneys general, filed a lawsuit against Google alleging similar anticompetitive conduct than in *Google Android*.³⁷⁶ Also, the Australian Competition and Consumer Protection authority has carried out a sectoral inquiry into the online advertising business (see Annex 5.g), eliciting a reply from Google, which argues that the company does not foreclose competition in that market segment (Bitton and Lewis 2020).

Table 28. Sector inquiry findings of selected European competition authorities

Sector inquiry	Identified (potential) concern
<p>French competition authority³⁷⁷</p> <p>(When describing the possible abuses of dominance, the report is not clear which company, Google and/or Facebook, could be concerned).</p>	<p><i>“... some stakeholders identified practices that they present as strategies for bundling or tied sales, low prices and exclusivities. The behaviour mentioned includes the association of several intermediation services, the link between intermediation services and services supplying targeting data, and the link between an intermediation service and exclusive access to a website’s inventory. Many stakeholders consider that some companies make access to their data contingent on the purchase of their own advertising solutions and services, and that this data could not be used on competing ad services. Furthermore, data access is said to be provided free of charge with the use of services and solutions”.</i></p>

³⁷³ European Commission decision of 11 March 2008 in Case M.4731 *Google/DoubleClick* http://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=2_M_4731

³⁷⁴ The Italian NCA investigates whether Google is engaged in an exclusionary abuse of dominance in the online display advertising market, where its ad intermediation services rely on “non-replicable” user data that Google collects within its ecosystem. Pending case A542 *Google nel mercato Italiano del display advertising* www.agcm.it/dettaglio?db=41256297003874BD&uid=9AA68BBBC1F2E727C125861400592EE7&view=vw0301&title=A542-GOOGLE%20NEL%20MERCATO%20ITALIANO%20DEL%20DISPLAY%20ADVERTISING&fs=%20%2082_CE/102_CE-Abuso%20di%20posizione%20dominante; press release in English <https://en.agcm.it/en/media/press-releases/2020/10/A542>

³⁷⁵ European Commission decision of 18 July 2018 in Case 40.099 *Google Android* https://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=1_40099. Appeal T-604/18 *Google and Alphabet* pending before the General Court.

³⁷⁶ <https://www.justice.gov/opa/press-release/file/1328941/download>

³⁷⁷ Autorité de la concurrence, *Opinion no. 18-A-03 of 6 March 2018 on data processing in the online advertising sector*, para. 248-249 https://www.autoritedelaconcurrence.fr/sites/default/files/integral_texts/2019-10/avis18a03_en_.pdf

Sector inquiry	Identified (potential) concern
Dutch competition authority ³⁷⁸	<p>The competition authority identified a potential competition concern that a dominant online video streaming platform only makes available advertising space through its own technological systems. ACM mentioned the example of YouTube bundling its advertising space with Google's online advertising technologies.</p> <p>However, this competition problem did not seem likely to ACM as:</p> <ul style="list-style-type: none"> • none of the online video streaming platforms is currently dominant in the market for the provision of online advertising space (YouTube/Google and Facebook are the largest ones); and • although Google is a major online advertising technology provider, there is sufficient competition in this market which seems to have low barriers to entry.
The UK competition authority ³⁷⁹	<p><i>“We have identified two main concerns. First, Google has been able to use its market power in search and its wider ecosystem to build its position as a demand-side platform (DSP). This has involved leveraging its user data and large base of advertisers (from Google Ads) to favour its DSP, and tying access to YouTube to use of its DSP services”.</i></p>

Google Android – contractual tying of Google’s mobile apps to protect search ad revenues

In *Google Android*, the Commission found that Google engaged, among other things, in contractual tying practices that ensured that its general search app and mobile browser are pre-installed on practically all Android devices that are sold in the EEA.

This conduct was part of a strategy that protected and strengthened Google’s dominant position in general search services and, therefore, its revenues from search ads.

Original equipment manufacturers (OEMs) interested in pre-installing Google apps must sign a Mobile Application Distribution Agreement (MADA). The MADA only allows the preinstallation of Google Mobile Services (GMS) suite of apps, which includes the Play Store, Google Search and Google Chrome, as a bundle.

³⁷⁸ The Netherlands Authority for Consumers and Markets, *A closer look at online video platforms*, 22 August 2017 https://www.acm.nl/sites/default/files/old_publication/publicaties/17572_rapport-online-video-platforms-onder-de-loop-22-08-2017.pdf, English summary https://www.acm.nl/sites/default/files/old_publication/publicaties/17575_report-taking-a-closer-look-at-online-video-platforms-22-08-2017.pdf

³⁷⁹ The UK The Competition and Markets Authority, *Online platforms and digital advertising, Market study final report*, July 2020, para. 65 and 99. <https://www.gov.uk/cma-cases/online-platforms-and-digital-advertising-market-study>

Table 29. Two of the four abusive conduct concerned contractual tying of the Google Search app with the Play Store as well as tying of Google Chrome with the Play Store and the Google Search app

Abuse of dominance (article 102 TFEU)	Markets where Google abused its dominance	Markets where the conduct is likely to restrict competition
Tying Google Search (tied product) with the Play Store (tying product) ³⁸⁰	<ul style="list-style-type: none"> • Android app stores 	<ul style="list-style-type: none"> • General search services
Tying Google Chrome (tied product) with the Play Store and Google Search (tying products) ³⁸¹	<ul style="list-style-type: none"> • Android app stores • General search services 	<ul style="list-style-type: none"> • Non-OS-specific mobile web browsers • General search services
Preventing original equipment manufacturers (OEMs) from using Android fork operating systems (OSs) by making the licensing of the Play Store and Google Search conditional on anti-fragmentation obligations	<ul style="list-style-type: none"> • Android app stores • General search services 	<ul style="list-style-type: none"> • Licensable smart mobile OSs • General search services
Granting revenue sharing payments to OEMs and mobile network operators in return for exclusivity	<ul style="list-style-type: none"> • General search services 	<ul style="list-style-type: none"> • General search services

Likely anticompetitive effect of tying

According to the Commission, the pre-installed (and un-installable) apps gave Google an advantage over its search and mobile web browser competitors, helping Google to maintain and strengthen its dominance in general search (defensive leveraging). The increased usage of Google Chrome did this indirectly, because:

web browsers are an important entry point for general search services on mobile devices; Google Search is set as the default general search service on Google Chrome; and users are unlikely to change this when the default search service on the web browser already delivers the required functionality to a satisfactory level.

Such default biases played an important role in the Commission’s analysis³⁸².

“The reason why pre-installation, like default setting or premium placement, can increase significantly on a lasting basis the usage of the service provided by an app is that users that find apps pre-installed and presented to them on their smart mobile devices are likely to “stick” to those apps... Users are unlikely to look for, download, and use alternative apps, at

³⁸⁰ European Commission decision of 18 July 2018 in Case 40.099 *Google Android*, section 11.3. https://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=1_40099

³⁸¹ Ibid., section 11.4.

³⁸² Kotzeva, R., Kovo, D., Lorincz, S., Sapi, G., Sauri, L., Valletti, T., *Recent Developments at DG Competition: 2018/2019*. Rev Ind Organ 55, 551–578 (2019). <https://doi.org/10.1007/s11151-019-09739-w>

least when the app that is pre-installed, premium placed and/or set as default already delivers the required functionality to a satisfactory level³⁸³.

Table 30. The Commission’s theories of harm in relation to tying

Theory of harm	Key argument
Significant competitive advantage that competing service providers cannot offset by other methods of distribution	The finding is consistent with the evolution of Google's market shares (for both general search and non-OS-specific web browsers)
Increased barriers to expansion	It is harder for competing general search services to gain search queries and the respective revenues and data needed to improve their services.
Increased barriers to entry	Competitors must spend resources to overcome the status quo advantage conferred by pre-installation.
Deterred innovation	Competitors have a lower incentive for competitors to invest in developing innovative features.
Direct or indirect consumer harm	Consumers “may see less choice”

Google’s efficiency claims rejected by the Commission

The Commission rejected Google’s claim that tying is objectively justified because it allows to:

- Monetise Google’s investments in Android;
- Offer the “consistent out-of-the-box experience that users expect, and facilitates competition with Apple and other vertically integrated or closed mobile platforms”; and
- Allows OEMs to get the Play Store licence for free.

In the view of the Commission:

- Google did not need tying to achieve substantial revenues from the Play Store, on top of collecting of user data and increasing revenues from search advertising;
- OEMs can also satisfy the user demand for an out-of-the-box experience by pre-installing applications from different providers; and
- Google has an interest in providing the Play Store for free to increase penetration, as also other app stores do.

Fines and remedies

The Commission fined Google a record €4.34bn for the infringements (which also included other elements than tying). It also ordered the company to bring the infringements effectively to an end within 90 days and refrain from adopting any practice or measure having an equivalent object or effect. In relation to tying, Google should refrain from:

licensing the Play Store to OEMs only on condition that they pre-install Google Search; and licensing the Play Store and/or Google Search to OEMs only on condition that they pre-install Google Chrome.

³⁸³ European Commission decision of 18 July 2018 in Case 40.099 *Google Android*, para. 781-782 https://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=1_40099.

In addition, Google should refrain from adopting any practice or measure having an equivalent object or effect, including payments, discounts, punishments or threats to incentivise OEMS to pre-install Google Search or Chrome.

In October 2018, Google announced its first compliance measures for all new smartphones and tablets launched in the EEA. Google's compliance measures introduced in the EEA include that device manufacturers can since 29 October 2018 license, against a fee, the GMS suite of apps separately from Google Search and Google Chrome.

In April 2019, Google announced an Android update that would offer the option for users in the EEA to download additional alternative search apps and browsers. As a further measure, on 1 March 2020 Google introduced a so-called choice screen³⁸⁴ that requires users to choose a default search provider on new Android devices. Alternative search providers need to participate in quarterly auctions on a per EEA country basis to win one of the three places in the choice screen, in addition to Google. For 3Q 2020, less-known search engines DuckDuckGo and Info.com won a choice screen place in all 31 countries.³⁸⁵ Microsoft's Bing is absent in all markets.

Google's choice screen is similar to one of the undertakings that Microsoft gave in 2009³⁸⁶ to alleviate the Commission's competition concern over tying the Internet Explorer web browser to the Windows OS (see Section d.ii). However, Microsoft did not charge rivals for the inclusion in its choice screen, which featured the most widely used web browsers.

iii. Characteristics of the platform concerned

Google's core business is its search engine – a free-to-use service made profitable through advertisements shown alongside search results. Advertising has long been Google's core revenue driver, and it has steadily grown in absolute terms to over USD 134 billion globally in 2019.³⁸⁷ Still today, advertising is parent company Alphabet's largest source of revenue, accounting for around 82% of its total revenue in 2019.³⁸⁸ However, Google has diversified in recent years, as illustrated by "other" revenues³⁸⁹ increasing from 1% of the total in 2007 to 14.6% in 2018, as shown in Figure 91.

³⁸⁴ <https://www.android.com/choicescreen/>, accessed on 4 August 2020.

³⁸⁵ <https://www.android.com/choicescreen-winners/>, accessed on 4 August 2020.

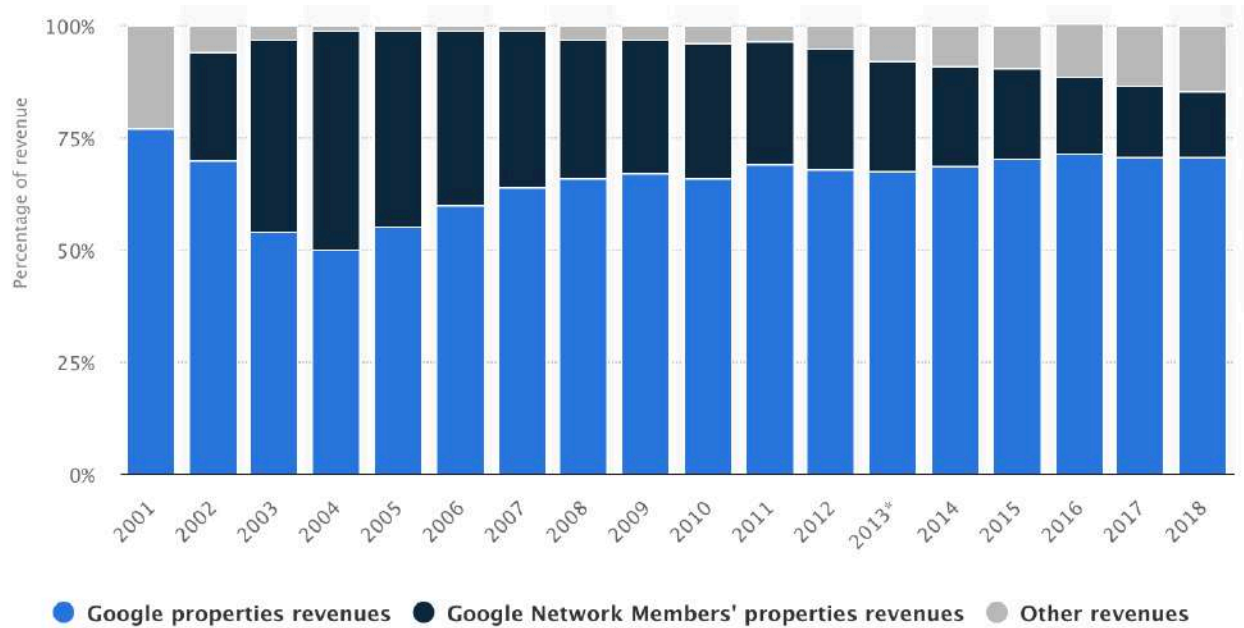
³⁸⁶ European Commission decision of 16 December 2009 in Case 39.530 *Microsoft (tying)* https://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=1_39530

³⁸⁷ See <https://www.statista.com/statistics/266249/advertising-revenue-of-google/>

³⁸⁸ See earnings report: https://abc.xyz/investor/static/pdf/2019Q4_alphabet_earnings_release.pdf?cache=05bd9fe

³⁸⁹ App sales, hardware like Chromecast, service fees for Google Cloud and APIs, licensing, etc.

Figure 91. Google revenues by source



Source: Statista

Note: Google properties mainly consist of AdWords, YouTube (including YouTube TrueView and Google Preferred), and other ad revenue from additional services on Gmail, Finance, Maps, and Google Play. Google Network Members' properties mainly consist of AdSense, AdExchange, AdMob, DoubleClick, and other network products.

Google accounted for 32.3% of total digital advertising revenues globally in 2019 – a figure which has hardly moved since 2016.³⁹⁰ Its dominance is much more marked in search engine usage. Globally, Google's share of the search market has hovered around 90% from 2010-2020,³⁹¹ while in Europe, the figure is 93.5%.³⁹²

In Q3 of 2019, Google had 114,096 employees globally, of whom most were in North America.³⁹³ Google also maintains dozens of offices across Europe, while its largest EU office is in Dublin.

Google's prospects remain very strong in online advertising, alongside Facebook. However, Amazon has become a more significant competitor in online advertising in recent years, growing at a 50% rate and accounting for 8.8% of US digital advertising revenue in 2019.³⁹⁴ To some extent, more specific searches have grown in importance. For example, the Economist reports an estimate that about 60% of product searches now start on Amazon (The Economist, 2020)³⁹⁵.

³⁹⁰ See <https://www.statista.com/statistics/193530/market-share-of-net-us-online-ad-revenues-of-google-since-2009/#:~:text=Google's%20market%20share%20of%20global%20digital%20ad%20revenues%202016%2D2019&text=In%202016%2C%20the%20search%20engine's,ad%20revenues%20was%2032.8%20percent>.

³⁹¹ See <https://www.statista.com/statistics/216573/worldwide-market-share-of-search-engines/>

³⁹² See <https://gs.statcounter.com/search-engine-market-share/all/europe>

³⁹³ See https://abc.xyz/investor/static/pdf/2019Q3_alphabet_earnings_release.pdf

³⁹⁴ See Statista, <https://www.statista.com/chart/17109/us-digital-advertising-market-share/>

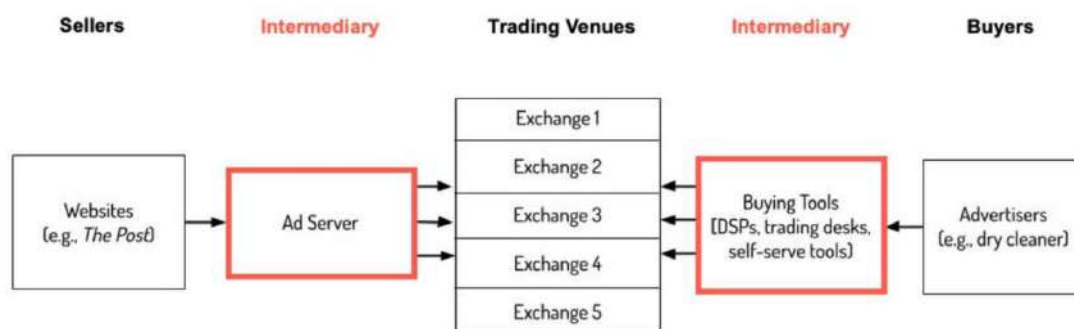
³⁹⁵ The Economist (2020), "Google Grows Up", The Economist, 1 August.

Online ad exchanges where Google operates

Google's advertisement ecosystem is interwoven with its services such as Google Search, Play, YouTube, Maps, and many more. Google's advertisement practices and services are highly complex, and an exhaustive description is beyond the scope of this case study. Thus, this discussion is necessarily simplified.

Online ad exchanges are essentially comprised of three software components: **ad servers, exchanges, and buying tools**. On the seller side, websites sell advertising space next to content that consumers visit for (e.g. articles). Websites communicate their available spaces to trading venues (exchanges) via an intermediary called an ad server. On the buyer side, advertisers (e.g. a local dry cleaner) bid on advertising space. One or more exchanges hold an auction, pick a winning bid, and return it to the ad server.

Figure 92. Electronic ad trading structure



Source: Srinivasan (2020: p. 15)³⁹⁶

Note: DSP means Demand Side Platform.

Each advertising exchange sets a time limit on bids, typically 100-160 milliseconds. The buying tools race to unpack data contained in the ad request, query additional data about the user (e.g. spending habits), and select an ad and price to bid. At the set time, the exchange selects a winning bid. The ad server then selects the exchange with the highest offer and displays it to the user.

Note that different payment models are possible within (and besides) this, such as pay-per-click (PPC), cost per impression (CPM), and cost per action (CPA).³⁹⁷ Google reports its monetisation metrics with paid clicks on Google properties, cost-per-click on Google properties, impressions on Google Network Members' properties, and CPM on Google Network Members' properties.³⁹⁸ Note also that this model primarily refers to banner ads, while Google also competes with search advertising services (e.g. results that appear next to search results – primarily of note with Google's AdSense).

In the model shown in Figure 93, **Google and its services are involved at each step of this process**. From left to right, it operates: 1) websites and platforms (e.g. Google Search, YouTube, Google Shopping, Gmail, Google Maps, Google Play) selling ad space; 2) ad servers, like AdSense³⁹⁹ and market leader DoubleClick;⁴⁰⁰ 3) the largest exchange, Google

³⁹⁶ Srinivasan, D. (2020), "Why Google Dominates Advertising Markets", p. 74.

³⁹⁷ See <https://support.google.com/google-ads/answer/6268632>.

³⁹⁸ See Q3 2019 for example,

https://abc.xyz/investor/static/pdf/2019Q3_alphabet_earnings_release.pdf.

³⁹⁹ Launched in 2003.

⁴⁰⁰ Acquired in 2007. See Google to Acquire DoubleClick, S.E.C. (Apr. 13, 2007),

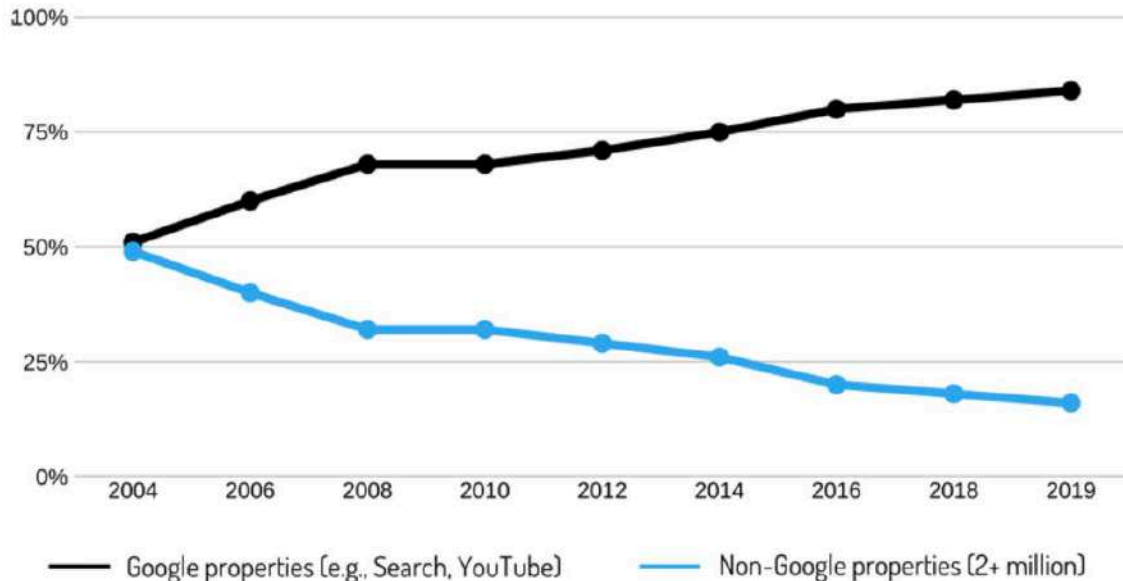
<https://www.sec.gov/Archives/edgar/data/1288776/000119312507084483/dex991.htm>. Cited from Srinivasan (2020).

Ad Exchange (AdX);⁴⁰¹ the buying tool Google Ads,⁴⁰² which caters to smaller advertisers, and the DSP Display & Video 360 (DV360)⁴⁰³ for enterprise advertisers; and finally, 4) Google itself places ads for its products and services.

Establishing dominance in online ad exchanges

Google entered the programmatic advertisement market rather late in 2009, when the market had many more players. Nevertheless, it quickly grew dominant as shown in Figure 93.

Figure 93. Share of Google Ad Revenues Going to Google vs. Non-Google Properties 2004-2019



Source: Srinivasan (2020: p. 41)

By around 2013, Google ran the most successful exchange, with many competing exchanges closing by 2015. Most other competing exchanges now offer discount prices because they are **unable to identify users associated with an ad space**, resulting in less targeted advertising.⁴⁰⁴

To understand why, we must bear in mind that two main factors can give advertisers an advantage in these auctions: **greater speed**, and **greater information on the user**. The latter is of particular concern in this case study.

Google products are much better at recognising users than its rivals. This allows Google to offer better (faster, more precise identification of users) trades between buyers and sellers compared to rival exchanges.⁴⁰⁵

Google's current dominant position has significant implications for data usage. The success of Google Ads compared to more traditional forms of advertising relies on highly targeted advertising, necessitating intensive data collection, storage, and analysis. In addition, Google

⁴⁰¹ Acquired in 2007, originally called DoubleClick Ad Exchange.

⁴⁰² Launched in 2000 as Google AdWords, rebranded as Google Ads in 2018.

⁴⁰³ Launched in 2012, originally called DoubleClick Bid Manager.

⁴⁰⁴ The full picture is considerably more complex. For example, in order to identify a user associated with an ad space, intermediaries other than Google must use cookies to assign new proprietary IDs, and synchronize these with Google's hashed ones – a process called cookie syncing. This is inefficient for users (longer page loads) and intermediaries, and does not always result in correct identification of users. See Srinivasan (2020: pp. 27–28).

⁴⁰⁵ For more detailed discussion see Srinivasan (2020)

can collect and integrate user data across many services, and compel third parties to provide data.

As discussed above, Google is present throughout the online advertising value chain. This gives it a unique data advantage compared to competitors. In a 2018 Opinion, the French Competition Authority pointed out that Google:

*only let[s] advertisers who buy ad space via their buying platforms mine data generated from the services they publish. This means that Google combines supplying its data and providing intermediation services and ad servers for advertisers (AdWords, the DCM ad server and the DBM DSP), which would seem to give it an advantage over its competitors. Advertisers can define audience segments based on several types of data that only Google is able to collect. This includes user data, Google's first-party data from the use of Google services, data on websites and third-party inventories that Google sells through the Google Display Network, AdWords and DoubleClick AdX, and data from third-party websites and applications that use DoubleClick and share data with Google.*⁴⁰⁶

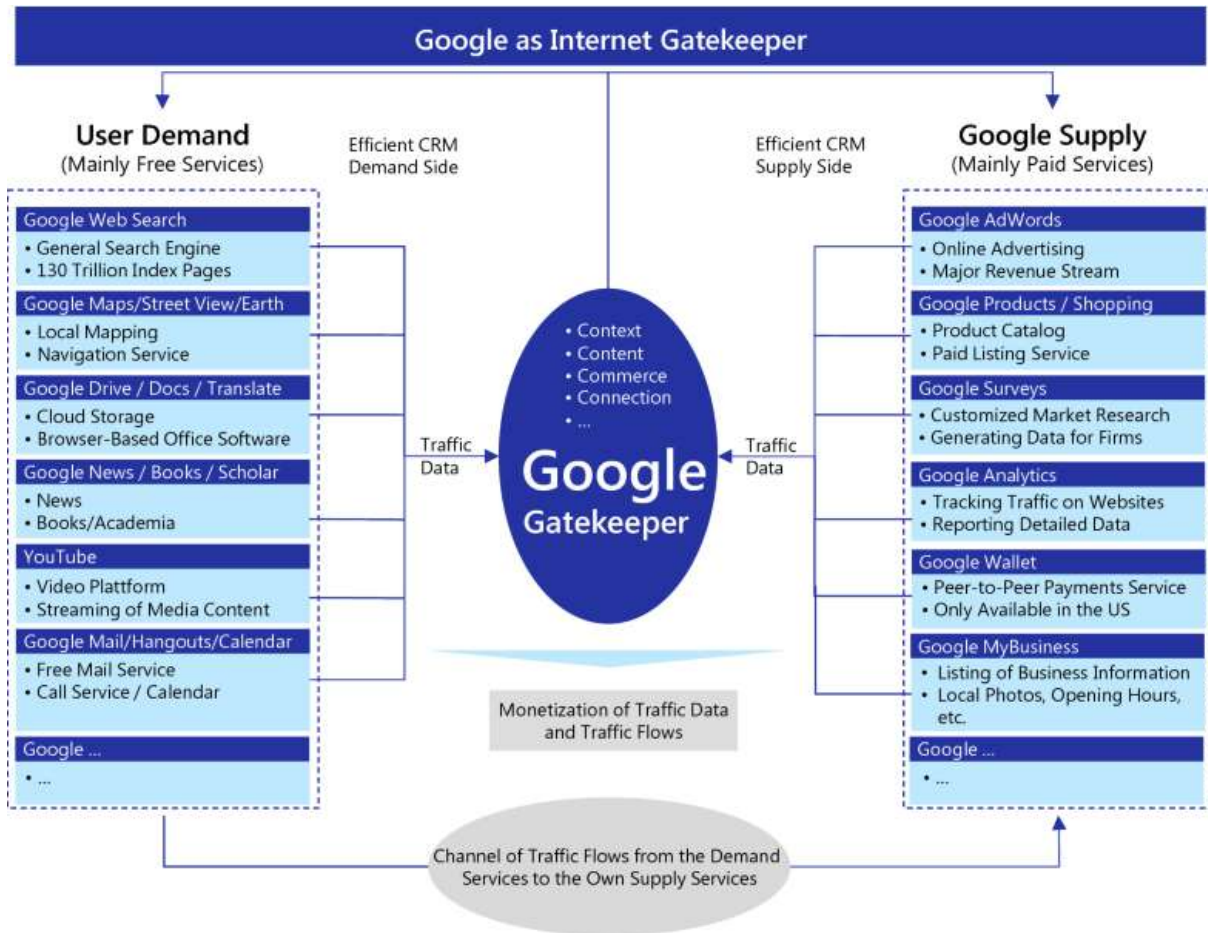
Beyond these data advantages, Google's persistent dominance in the ad server market seems protected by several factors. Among these are: 1) high switching costs, of which publishers are wary; 2) DFP is virtually free and fully integrated with AdX, which means competitors cannot compete on price, and customers leaving DFP may be concerned with losing profits from AdX; and 3) Google's exchange AdX is the dominant ad exchange. By November 2018, AdX had a market share of 62.65%, compared to the nearest competitor AppNexus with 13.44% (Geradin and Katsifis, 2019).

Factors contributing to gatekeeping role

Google's primary service, Search, is possible because it searches, stores, and catalogues trillions of websites. When users enter a query, Google uses the words they type and stored cookies to generate a list of "organic" results, alongside targeted advertisements. While competitors like Yahoo and Bing control a portion of the search market, Google's dominant majority share in all countries except China means it plays a large role in what information users can find and access. As such, Google plays a gatekeeping role for users who rely on it for searches, as shown in Figure 94. This includes content of all sorts, including news, academic literature, products and services, and navigation.

⁴⁰⁶ FCA Opinion para 143, cited from Geradin and Katsifis (2019)

Figure 94. Google as Gatekeeper



Source: Wirtz (2019)⁴⁰⁷

Moreover, Google may act as a gatekeeper to competitors and third parties. Google's organic search results and Ad placements are ordered such that top results are much more visible and likely to be noticed and clicked. This has been examined in the context of Google preferentially placing ads for Google Shopping to the detriment of other online shopping comparison tools.⁴⁰⁸

iv. Evidence of the problem and associated harms

The problem relating to online advertising, specifically online display advertising and online search advertising⁴⁰⁹, which is known for its lack of transparency, relate to the dominance of Google throughout the ad tech value chain and its potential abusive conducts producing exploitative and exclusionary effects to the detriment of publishers, advertisers and other competitors.

Evidence of dominance of Google in the ad tech markets

The ad tech value chain comprises key actors:

⁴⁰⁷ Wirtz, B.W. (2019), "Google/Alphabet Case Study", in B.W. Wirtz (ed.), Digital Business Models: Concepts, Models, and the Alphabet Case Study, Cham: Springer International Publishing (https://doi.org/10.1007/978-3-030-13005-3_11).

⁴⁰⁸ See https://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=1_39740

⁴⁰⁹ Search and display advertising have been considered as separate markets by the French Competition Authority. See

- Publishers and Advertisers
- Publisher ad servers and Advertiser ad servers, which for the former is used by publishers to manage their ad inventory (e.g. Google's Double Click For Publishers (DFP), OpenX ad server, AdZerk ad server), and for the latter is used by advertisers to manage their ad campaigns (e.g. Google's DoubleClick Campaign Manager);
- Supply Side Platforms (SSPs) organise demand for ad inventory and help the publisher choose the most profitable ad to display. SSPs function now also as ad exchanges (e.g. Google's Ad Exchange, AppNexus, One by AOL);
- Ad Exchanges are online marketplaces when supply and demand for ad inventory meet (e.g. Google's AdX, recently integrated with DFP to form Google Ad Manager);
- Demand Side Platforms (DSPs) manage the purchasing of ad inventory for advertisers via a single management interface that connects advertisers to an ad exchange/SSP (e.g. Google's DoubleClick Bid Manager (DBM), DataXu and Amazon DSP);
- Ad Networks gather ad inventories from multiple publishers and sell them to advertisers either directly or indirectly on ad exchanges (e.g. Google's AdSense, accessed through AdWords, which enables advertisers to create ads provided in Google search results pages and Google Display Network);
- Data Management Platforms (DMPs) and data providers, which for the former are usually linked to a DSP.

These diverse actors represent intermediaries used by publishers and advertisers in their indirect deals, i.e., programmatic advertising. They are however also of relevance in direct deals between publishers and advertisers with respect to publisher ad servers and advertiser ad servers.

Google's dominance pervades each ad tech market, i.e. ad tech intermediation (ad exchanges and ad networks) and ad servicing technologies (ad servers for publishers and ad server for advertisers), following Google's numerous acquisitions across the ad tech value chain since the early 2000s with around 200 companies.⁴¹⁰

Google is dominant with respect to:

- the ad server for publishers, DFP, offered for free to publishers (rendering competition more difficult) and closely connected to AdX (customers' revenues depending on both, they may be limited in their choice to leave one or the other);
- the ad exchange/SSP with AdX having a market share of 62.65% in November 2018⁴¹¹; and
- the DSP with DoubleClick Bid Manager, which generates the largest revenue and has significant growth.⁴¹²

Google has also its own powerful data management platform with Google Analytics, an ad server for advertisers and an ad network.

As observed by the French Competition Authority, "[t]hese acquisitions generally counteract the limited barriers to entry and expansion as they prevent new players from reaching a significant size and being able to compete with the positions of established stakeholders."⁴¹³

⁴¹⁰ French Competition Authority, Opinion no. 19-A-03 of 6 March 2018, para. 105.

⁴¹¹ www.datanyze.com/market-share/ad-exchanges.

⁴¹² FCA 2018 Opinion, para. 221.

⁴¹³ FCA 2018 Opinion, para. 239.

Evidence of specific abusive conducts and harms in online display advertising

Based on the opacity of the ad tech sector and Google's dominance in the ad intermediation markets, a potential for abusive conduct by Google could relate to the ad tech tax equating to a form of exploitative conduct with respect to publishers and/or advertisers.

In fact, a DSP (AdWords) may hide the fact that the ad exchange (AdX) uses a second-price auction design and instead inform the buyer/advertiser that the exchange (AdX) uses a first-price auction, thereby enabling it to retain the difference between the actual cost of the ad impression and the buyer/advertiser's bid, representing the so-called **ad tech tax**. "The opportunity for arbitrage is greater when the first-price auction yields a relatively high bid [given AdWords' prominence as an ad network] and the second-highest bid in the second-price auction is materially lower [e.g. AdWords having more data about the user]."⁴¹⁴

This abusive conduct affects both the **advertiser** (having to pay a higher price) and the **publisher** receiving a price lower than the actual cost of the ad impression. In addition, the ad tech sector is experiencing consolidation around Google and Facebook⁴¹⁵ based notably on such abusive conducts, with the effect of importantly slowing down revenues for **independent ad tech firms** and thereby innovation.

Another abusive conduct by Google in the ad tech sector, which it monopolises and from which customers are thus financially dependent, relates to its **interlinked position** as organiser of the final auction via DFP and participant in the auction via AdX. In this regard, Google's leading ad server for publishers may favour its intermediation services, thereby distorting the competition with the **other ad networks and exchanges**, depriving them from the critical scale and liquidity for their sustainability, and negatively affecting **publishers**, which, as may be recalled, are financially dependent on both with the limited choice to leave one or the other. This abusive conduct is obvious from **dynamic allocation**, a feature in DFP, giving AdX the exclusive privilege of real-time auction for each ad impression sheltered from real-time competition by the exchanges and thereby the possibility to buy the impressions at artificially low prices. In addition, the vast amounts of historical **data** regarding bids gathered by DFP might be used by Google in favour of AdX.

Finally, another abusive conduct by Google relates to the development of Google's "**Accelerated Mobile Pages**" (**AMP**) standard, aimed at making websites load faster when accessed via mobile, as it undermines header bidding which is not possible in AMP-compliant websites for technical reasons. In addition, Google requires all AMP pages to be loaded on its servers, giving it an advantage regarding users' **data**, whose access by publishers Google restricts. Nevertheless, publishers have *de facto* to be AMP-compliant for being apparent in Google Searches.

In this way, Google leverages its dominance in general search to coerce publishers against their interests, as the implementation by publishers of header bidding, allowing **publishers** to have access to real-time demand from different ad exchanges, contributes to significant increases in their revenues up to 60%.⁴¹⁶ Moreover, header bidding, as an **innovative** service, is set aside by Google's abusive conduct.

Efficiencies and pro-competitive effects claimed by Google

In a recent submission to the Australian Competition and Consumer Commission, Alphabet consultants Daniel Bitton and Stephen Lewis argued that Google's conduct in this market

⁴¹⁴ D. Geradin and D. Katsifis (2019), at 89 (emphasis added).

⁴¹⁵ C. Ballentine, 'Google-Facebook Dominance Hurts Ad Tech Firms, Speeding Consolidation', The New York Times, 12 August 2018.

⁴¹⁶ N. Maxwell, 'Header Bidding: Not Just for Publisher' Benefit', AdExchanger, 29 April 2016.

creates a number of efficiencies.⁴¹⁷ More in detail, even though it accounts for almost 30% of spending in the global digital ad market, according to the authors Google does not control enough of the industry to overcharge its customers and foreclose its competitors.

The authors claim that Google has little incentive to squeeze advertisers on ad rates or publishers on fees. It has not built its system to give its own services an advantage and it competes with a wide range of other companies, some of which provide the full stack of services needed in this market (See Figure 95 below). In particular, in addition to ad tech providers that are vertically integrated along the ad stack, several others are vertically integrated and sell both their own ad inventory and ad tech products that facilitate other publishers. Examples include Amazon, AT&T’s Xandr, Comcast, Facebook, Microsoft, Twitter and Verizon Media. Other ad tech players specialise in ad tech (e.g. the Trade Desk, MediaMath); companies that specialise in mobile apps (e.g. AppLovin; Fyber); and more generally, a vibrantly competitive environment that includes new companies such as AppNexus (now AT&T), Criteo, FreeWheel, InMobi, PubMatic, OpenX, Outbrain, Rubicon Project, Taboola and TubeMogul (now Adobe). Moreover, Bitton and Lewis (2020) claim that there is no evidence of monopolistic rents in the relevant market.

Figure 95. Google’s rivals in the online ad market

	Buy-side		Sell-side		
	Ad Serving	Buying platform/ Ad network	Ad Exchange/ SSP	Header/ Open bidding	Publisher Ad Server
	X	X	X	X	
	X	X	X	X	X
	X	X	X	X	X
	X	X	X		X
		X	X		
		X	X		X
			X	X	
		X	X	X	X
	X ¹⁴⁹	X			
		X			
	X	X			
			X	X	
			X	X	X
			X	X	X

Source: Bitton and Lewis (2020)

v. Solutions and impacts

In the Android case, a significant fine was imposed on Google in addition to the order for Google to cease its tying practices and any practice or measure having an equivalent object or effect, including payments, discounts, punishments or threats. Compliance measures adopted by Google include the possibility for device manufacturers to license against a fee for the GMS suite of apps without tying to Google services, and the option for users of

⁴¹⁷ See Bitton and Lewis (2020), Clearing Up Misconceptions about Google’s Ad Tech Business, 5 May 2020, available at <https://www.accc.gov.au/system/files/Google%20-%20Report%20from%20Daniel%20Bitton%20and%20Stephen%20Lewis%20%285%20May%2020%29.pdf>.

Android to download additional alternative search apps and browsers and to have access to a choice screen for choosing a default search provider.

The Commission's fine of €1,494,459,000 (1.29% of Google's turnover in 2018) took account of the duration and gravity of the infringement. Google ceased the illegal practices a few months after the Commission issued in July 2016 a Statement of Objections concerning the case. The decision issued in 2019 required Google to, at a minimum, stop its illegal conduct, to the extent it had not already done so, and to refrain from any measure that has the same or equivalent object or effect.

Data protection practices

Some of Google's practices on restricting recognition of cookies were justified on the basis of compliance with GDPR and the California Consumer Privacy Act (CCPA). However, these had the effect of ensuring Google's competitors were unable to access data for targeted advertising (Srinivasan, 2020).

Learning from other regulation from other real-time exchanges

In financial markets, exchanges must provide traders with fair access to the marketplace, including access to the data the exchanges transmit, and speed that data travels from exchanges to traders (Srinivasan, 2020).

d. Case 3: Unjustified tying and bundling – Microsoft 365 bundling with cloud services

i. What is the problem/s associated with this case?

Microsoft (MS) traditionally dominates the market for operating systems for desktop PCs, but has leveraged this also to Office application markets, network operating systems and many other software segments partly through bundling, price tactics and product development by integrating their services.

Holzweber (2018) described in the European Competition Journal that “... *digital markets are particularly vulnerable to tying and bundling practices..*” which “...*led to a broadening of the scope of the doctrine of tying and bundling: It may be applied to all cases where consumers are nudged to demand a supplementary product, thereby foreclosing the market for this supplementary product. In the context of digital markets, the doctrine tying and bundling thus evolved into a general theory of leveraging.*”⁴¹⁸.

Holzweber furthermore noted that, according to European Courts, product integration may amount to contractual tying and that “... *all practices that may lead to a transfer of market power from the dominated market to another market may be deemed an abuse of dominance.*” and that one needs to identify cases where this conduct may have chilling effects on competition in order to prove possible market foreclosure.⁴¹⁹

Since 2011, MS has been bundling its Office bundles (rebranded in 2020 as MS 365) with cloud services (MS Azure) and since 2013 started integrating functionality so that users have features like single sign-on and seamless data transfer between applications that are operated on-site and in the MS Azure cloud. MS has the advantage of leading several market segments, but it also has the worldwide presence and scale which bring cost efficiencies when providing cloud services. However, there is also the assertion that bundling

⁴¹⁸ Stefan Holzweber (2018) Tying and bundling in the digital era, European Competition Journal, 14: 2-3, 342-366, DOI: 10.1080/17441056.2018.1533360, <https://doi.org/10.1080/17441056.2018.1533360>

⁴¹⁹ Stefan Holzweber (2018) Tying and bundling in the digital era, European Competition Journal, 14: 2-3, 342-366, DOI: 10.1080/17441056.2018.1533360, <https://doi.org/10.1080/17441056.2018.1533360> , Page 364.

and tying of MS Azure cloud services with MS 365 pushed their success in the cloud market. This aspect is investigated in this case.

The current MS 365 bundles tie-in cloud-based storage, but also cloud-based exchange hosting and cloud-based workflow applications for very low additional fees. Prices for standalone offers for these services are significantly higher and indicate cross-subsidisation by MS. This could have contributed strongly to the success of MS. MS is the fastest growing software company in almost all market segments (apart from the CRM market).

A different aspect is the switching costs for an end customer; these are already considerable when a customer uses IaaS cloud services, but will increase when using PaaS and SaaS services.⁴²⁰ The cloud market has grown strongly in recent years, but especially the PaaS and the SaaS are expected to grow even larger compared to the IaaS segment. MS has positioned itself not only in most of the software markets, but also very well in the cloud markets. It has the lead in the PaaS/SaaS segments and therefore it is expected that MS will benefit disproportionately from this trend. This could also lead to higher switching costs for MS customers which can be detrimental for competition.

In summary:

- MS has a dominant share in the markets for end applications, being OS, Office, Exchange (above 80%), but also other customer-facing applications like business intelligence and workflow applications (e.g. Teams).
- The cloud market has grown tremendously in recent years with two-thirds of the market for the PaaS and SaaS segments, where customers not only host their infrastructure but also their development tools and their end applications.
- MS has a strong position in the PaaS/SaaS segments of the cloud market.
- MS has a history of tying other applications to its dominant PC operating software with Windows Media Player, Internet Explorer and Exchange. From 2013 onwards it started bundling its cloud services with its dominant Office Suite, later rebranded to MS 365. In 2020, workflow provider Slack raised a complaint about the bundling of Teams with MS 365 for a very low additional fee, but the same applies for cloud storage and MS exchange hosting. Hence, it is suspected that MS is cross-subsidising from the Office segment into the cloud storage, Exchange hosting and cloud-based workflow applications.
- The future prospect is that MS benefits strongly from the ongoing shift from own-managed applications to hosted (on and off site) and that customers could depend so strongly on MS in the PaaS/SaaS model that customers get locked in.

The Development of the cloud services market

Originally, the cloud services market started with Infrastructure as a Service (IaaS) where customers outsourced their infrastructure like servers and network storage. But the cloud market developed further into Platform as a Service (PaaS) where companies could also outsource their database management and developer tools in the cloud and eventually also their applications (called Software as a Service, SaaS). All cloud services have grown strongly in the last 10 years, but SaaS and PaaS cloud services make up roughly two-thirds of the total cloud market.

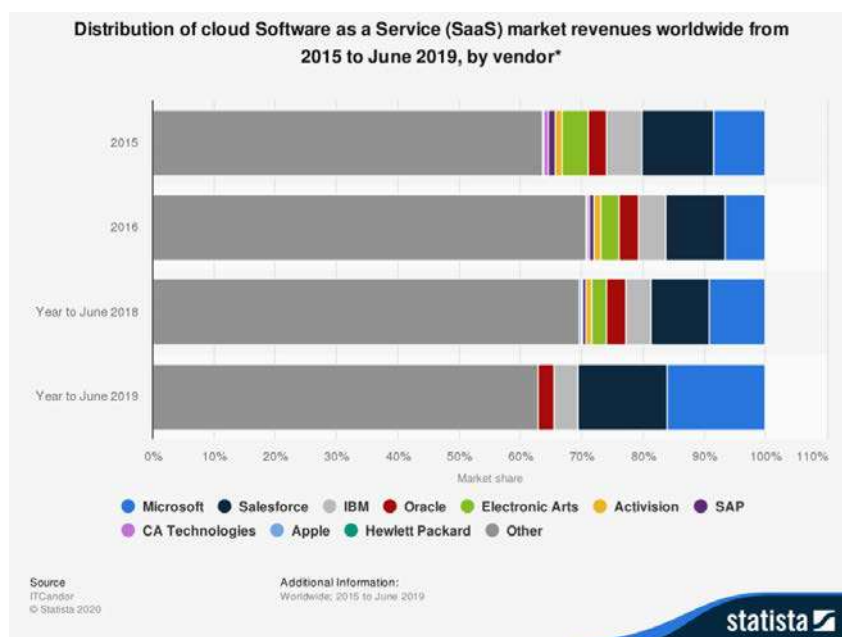
⁴²⁰ Infrastructure as a service (IaaS), Platform as a service (PaaS), Software as a service (SaaS)

Microsoft's strong market position

Microsoft's market share in the desktop operating software market has been stable over the years with almost 78% market share in January 2020⁴²¹. MS market share in the cloud-based Office market was, according to Gartner, around 88% in 2019.⁴²²

Amazon and more traditional IT companies like IBM are the largest players in the IaaS market. MS only holds a market share of 5% in the IaaS market versus 25% for Amazon. However, MS is leading in the largest part of the cloud market, the SaaS services and is also well positioned in the PaaS cloud market. MS holds 16% market share in the SaaS market, followed by Salesforce (14%), IBM (4%) and Oracle (3%). From 2015 onwards, especially Microsoft's and Salesforce's market share have increased strongly in the SaaS cloud segment while IBM remained constant and Oracle declined slightly.⁴²³ The following chart shows how SaaS market shares evolved over the period 2015 to 2019.

Figure 96. Market share SaaS market worldwide 2015-19



ii. Legal context

Microsoft's tying strategies in relation to its Windows operating system and apps have faced antitrust scrutiny since 1990s, first in the USA and subsequently in the EU.

Pending preliminary investigation into alleged tying of Teams to Office

In July 2020, Slack Technologies⁴²⁴ submitted a complaint to the European Commission against Microsoft for an alleged abuse of dominance under article 102 TFEU.⁴²⁵

⁴²¹ Statista 2020

⁴²² Called the email and authoring market (formerly named the office suite market). See CIODIVE Article, 11 February 2020 by Samantha Ann Schwartz, <https://www.ciodive.com/news/Google-Microsoft-Office-collaboration/571740/>

⁴²³ Statista 2020

⁴²⁴ On 1 December 2020, Salesforce announced an agreement to acquire Slack <https://investor.salesforce.com/press-releases/press-release-details/2020/Salesforce-Signs-Definitive-Agreement-to-Acquire-Slack/default.aspx>

⁴²⁵ <https://slack.com/intl/en-it/blog/news/slack-files-eu-competition-complaint-against-microsoft>

Slack and Microsoft provide competing workplace communication platforms, Slack and Teams, respectively.

Slack claims that Microsoft is leveraging its “*market-dominant Office productivity suite*” for enterprises (recently rebranded as Microsoft 365 Business) to foreclose Teams’ rivals.

Microsoft is allegedly doing this through abusive tying of Teams to Office, by forcing its installation “*for millions, blocking its removal, and hiding the true cost to enterprise customers*”.

According to Slack, it is a target of Microsoft’s anticompetitive conduct because it “*threatens Microsoft’s hold on business email, the cornerstone of Office, which means Slack threatens Microsoft’s lock on enterprise software*”.

Slack argues that Microsoft’s conduct is “*a carbon copy*” of its previous practice of tying Internet Explorer to the Windows operating system (see below).

In response to Slack’s complaint, Microsoft reportedly said that its Teams product has been embraced by the market based on merits, while Slack has “*suffered from its absence of video-conferencing*”.⁴²⁶

The Commission will assess Slack’s complaint, and it will either open an investigation against Microsoft or inform Slack about the rejection of the complaint. This should be done “*within a reasonable time*”.⁴²⁷

The Commission’s assessment should focus on whether the four conditions required to characterise a tying abuse are fulfilled. That is, whether:

- (business) productivity suites and workplace communications platforms are separate products;
- Microsoft is dominant in the (business) productivity suite market;
- Microsoft does not give customers the choice to obtain the Office (business) productivity suite without Microsoft Teams; and
- tying is liable to foreclose competition.

Tying of Windows Media Player to the Windows operating system

In 2004, the European Commission found that Microsoft abused its dominance under article 102 TFEU in the market for PC operating systems (OSs) by, among other things, tying Windows Media Player (WMP) to the Windows OS.⁴²⁸

The Commission found that the tying ensured that “*WMP is as ubiquitous on PCs worldwide as Windows is*”.

Third-party media player vendors could not offset this distribution advantage because:

PC manufacturers were discouraged to sign pre-installation agreements with third-party media player suppliers because it entailed using up hard drive capacity and additional costs while offering essentially similar functionality as WMP; and

⁴²⁶ <https://uk.reuters.com/article/us-slack-tech-microsoft-eu/microsoft-may-face-eu-antitrust-probe-after-slack-complaint-on-tying-practice-idUKKCN24N1WI>

⁴²⁷ European Commission Notice (2004/C 101/05) on the handling of complaints by the Commission under Articles 81 and 82 of the EC Treaty, para. 60 [https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52004XC0427\(04\)](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52004XC0427(04))

⁴²⁸ European Commission decision of 24 March 2004 in Case 37.792 *Microsoft* (refusal to supply Windows interoperability information and tying Windows Media Player) https://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=1_37792; EU General Court judgment of 17 September 2007 in Case T-201/04 *Microsoft v. Commission* <http://curia.europa.eu/juris/liste.jsf?num=T-201/04>

offering competing media players for download on the internet was not an alternative because of users' inertia, lack of information and technical skills.

According to the Commission, this:

- raised the content and applications barriers to entry that protect Windows and facilitated the erection of such a barrier for WMP;
- shielded Microsoft from effective competition from potentially more efficient vendors of media players;
- reduced the talent and capital invested in media players, including its own;
- enabled Microsoft anticompetitively to expand its position in adjacent media-related software markets; and
- resulted in sending messages that deter innovation in any technologies in which Microsoft could conceivably take an interest and tie with Windows PCs in the future.⁴²⁹

This foreclosure effect was reinforced by indirect network effects. Content providers and software developers wanted to provide their content or develop their complementary software for media players on the basis of the most ubiquitous technology, i.e. WMP.

This created “a positive feedback loop” in favour of Microsoft, because users prefer the media player that has the most content and supplementary software available for it.

The Commission refused the justifications put forward by Microsoft, which included the following:

- Lower transaction costs for consumers in terms of reduced time and confusion to have a set of default options in a personal computer “out of the box”. The Commission’s rebutted this claim by noting that if PC manufacturers were free to select the pre-installed apps (for example Windows with a third party media player, or Windows with WMP), the market would provide the varieties of packages preferred by consumers.
- Economies made by a tied sale of two products saves resources otherwise spent for maintaining a separate distribution system for the second product, and this cost saving is passed on to consumers. The Commission rebutted the claim by saying that, in this case, such savings cannot outweigh the distortion of competition because distribution costs in software licensing are insignificant. In contrast, the importance of consumer choice and innovation regarding applications such as media players is high.

In addition to ordering Microsoft to bring its infringements to an end by implementing specific remedies, the Commission fined the company €497.2m (partly for tying)

Main remedies related to tying

Microsoft must offer a version of Windows OS which does not include WMP, licensed both to end users and to PC manufacturers for sale in the EEA.

Microsoft can also offer a version of Windows with WMP, but it must not circumvent the decision by:

- degrading the performance of the version without WMP
- giving PC manufacturers or users a discount for obtaining the version with WMP

⁴²⁹ Lianos, Ioannis, Korah, Valentine, Siciliani, Paolo. *Competition Law* (p. 1179). OUP Oxford. Kindle Edition.

- otherwise removing or restricting the freedom of the manufacturers and users to choose the version without WMP.

Microsoft must not resort to other measures having an effect equivalent to tying, in particular:

- giving WMP favourable treatment by promoting it in any way over competitors' products on Windows
- tying WMP to another Microsoft product which would exhibit a similar ubiquity as Windows (e.g. Microsoft Office).

Tying of Internet Explorer to the Windows operating system

In 2009, the European Commission accepted commitments offered by Microsoft to alleviate its competition concerns over an alleged abuse of dominance under article 102 TFEU in the market for PC OS by tying the Internet Explorer (IE) web browser to the Windows OS.⁴³⁰

The Commission's preliminary finding was that such tying created an artificial distribution advantage that IE's competitors could not offset, mainly for the same reasons as in the 2004 Windows Media Player case.

The Commission considered that tying created network effects in favour of IE, which in turn limited innovation in web development. With IE being tied to Windows, products tailored to IE enjoy a potential audience equaling the number of all Windows users.

As a result, web developers and content providers had an incentive to primarily target IE, even though it *"lagged behind its competitors in a number of areas and was the least standards-compliant of the main web browsers"*.

In addition to foreclosing competition in the web browser market, the Commission considered that tying also served to counter the perceived *"platform threat"* to Windows.

With the large-scale deployment of modern web apps, web browsers have the potential to partly replace the underlying OS as the main tool for accessing and running apps. This can reduce the dependency of customers on specific OS because many web apps can be accessed on various web browsers regardless of the underlying OS.

The Commission considered that, through tying, Microsoft sought to counter this by ensuring that *"no application written specifically for... Internet Explorer, which is only available on Windows, would give its users an option to switch web browsers or even the underlying operating system."*

Microsoft's commitments included a so-called choice screen that would feature the twelve most widely used web browsers in the EEA, with the top five prominently displayed in random order. It would allow users to learn more about the browsers and install the one(s) they choose.

Microsoft later received a €561m fine for failure to fully comply with the commitments.

iii. Characteristics of the platform concerned

Introduction to cloud services

Cloud services run on servers managed by a provider either on premise, by the customer (private cloud services) or at an external site and accessed by the customer via an internet

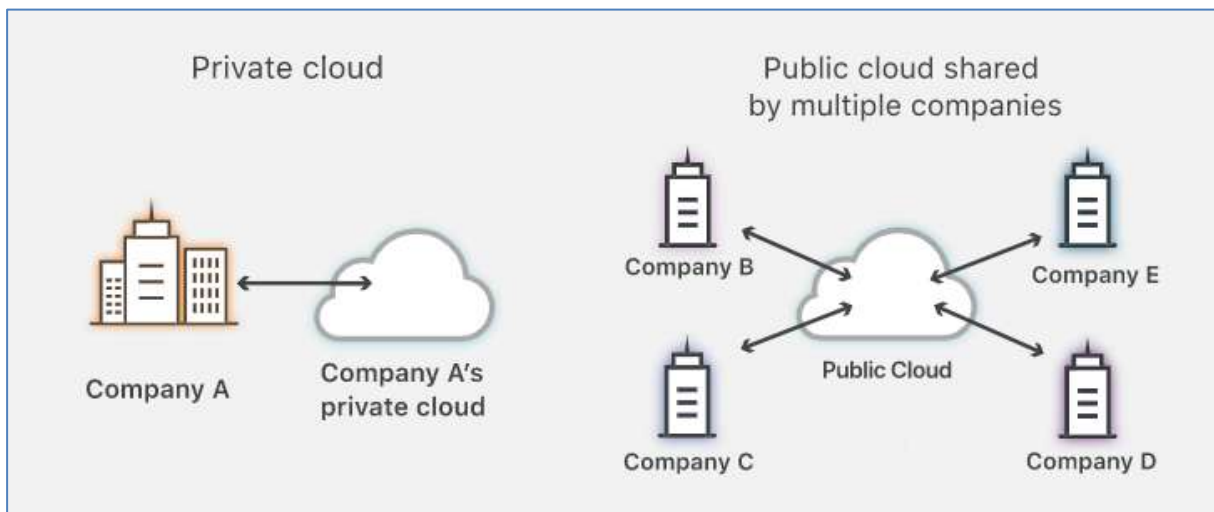
⁴³⁰ European Commission decision of 16 December 2009 in Case 39.530 *Microsoft (tying)* https://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=1_39530

connection. The latter are called public cloud services as other customers can access this infrastructure as well (in a separate secured environment).

Originally, cloud services were offered via the internet by providers with external infrastructure as an addition to companies' own existing IT infrastructure. The advantage was that, with cloud services, companies could increase their existing infrastructure easily and swiftly and cost efficiently instead of having to invest further in their own infrastructure. Also the cloud provider takes care of the management of the infrastructure.

Over time, companies even decided to outsource their on-premise infrastructure to cloud providers, which is labelled as private cloud services. Cloud services offered to several customers via internet connections are called public cloud services. Companies also use a combination of own infrastructure or private cloud and public cloud services, which is labelled as hybrid cloud services. Mostly, sensitive data and/or large amounts of data for which fast response times are required are stored in the private cloud. So, security and performance are factors which play a role in determining what data and applications are 'kept' in the private cloud.

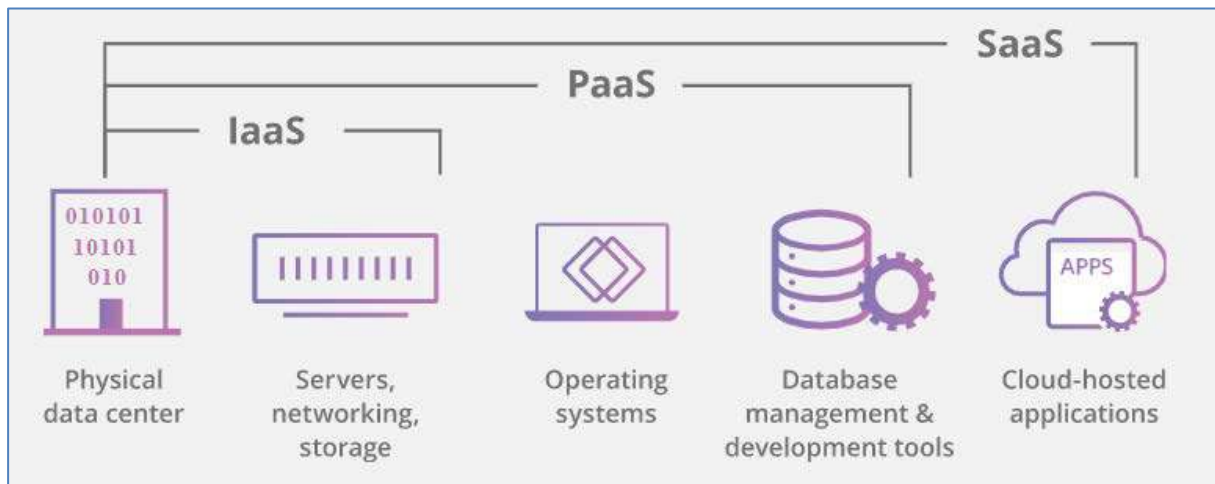
Figure 97. Private cloud versus public cloud services



Source: Cloudflare.com

Public cloud services are categorised further into three business models: Infrastructure as a Service (IaaS), Platform as a Service (PaaS) and Software as a Service (SaaS). These different categories are set out in the below image.

Figure 98. Different categories of public cloud services



Source: Cloudflare.com

With IaaS, companies basically rent the externally-hosted physical infrastructure, service and networking storage, which are managed by the cloud provider. The PaaS model overlaps the IaaS model, so it includes not only the rental of the infrastructure but also is the elements required to develop applications (operating system, database management and developer tools). SaaS is the most comprehensive service, where not only the infrastructure, operating systems and required tools are hosted and managed in the cloud by the SaaS provider but also the applications.

Historically, cloud providers started with IaaS and expanded their offerings into PaaS and SaaS. The SaaS market is currently the largest segment with 50-60%.

Microsoft's history of bundling Office products with cloud services

Microsoft announced Office 365 in June 2011. Facing growing competition from Google's similar service Google Apps, Microsoft designed the Office 365 platform to "bring together" its existing online services (such as the Business Productivity Online Suite (BPOS)) into "an always-up-to-date cloud service" incorporating Exchange Server (for e-mail), SharePoint (for internal social networking, collaboration, and a public web site), and Lync (now Skype for Business) (for communication, VoIP, and conferencing). Plans were initially launched for **small business and enterprises**. Following the official launch of the service, BPOS customers were given 12 months to migrate to the Office 365 platform.

With the release of Office 2013, the Office 365 platform was updated and launched in February 2013. Furthermore, it also introduced a new Office 365 Home Premium plan aimed at **home-users** and a university plan was introduced.

From 2013 onward, Microsoft started integrating cloud services with Office 365, such as the ability to use a single sign-on between the two services, shared feeds and document aggregation.

In June 2014, the amount of OneDrive storage offered to Office 365 subscribers was increased to 1 terabyte from 20 GB and in June 2016, Microsoft made Planner, a team collaboration cloud service, available for general release.

In 2017, for the enterprise market, Microsoft combined the operating system Windows 10 product with Office 365 Business Premium and the Enterprise Mobility & Security suite. The

security suite includes Advanced Threat Analysis, Azure Active Directory, Azure Information Protection, Cloud App Security and Windows Intune⁴³¹.

In April 2020, Microsoft rebranded the existing Office 365 plans for consumers and small businesses to Microsoft 365 and included for these customers also cloud-based productivity tools and artificial intelligence features.⁴³²

From March 2020, Microsoft announced that the Office 365 plans for consumers and small and medium sized businesses would be rebranded as "Microsoft 365". The Office 365 branding remains in use for plans targeting enterprise markets.

One of Azure's original offerings is its hybrid-cloud service, which acts as a primary growth driver and also gives the company one of its greatest competitive advantages. Hybrid-cloud computing is an infrastructure architecture that connects public cloud services to private, local area, or on-premises cloud services.

Many of the world's largest organisations use hybrid-cloud as a way to benefit from the scalability and flexibility of the public cloud while maintaining the security and control of on-premises infrastructure.

MS CFO Amy Hood stated in March 2020 that *"Hybrid cloud is becoming the standard for enterprise IT. The reality is that computing will need to exist at the edge and in the cloud, a thing that we call generally hybrid, I think is a reality that people are now beginning to see.*

*"We've been architected that way from the beginning and have been talking about the advantages of that also from the beginning. I do feel that some of these recent announcements we've made make that more and more real for people, when you talk about the importance of latency, or sovereignty, or privacy or security in terms of the portfolio we have and how customers think about it."*⁴³³

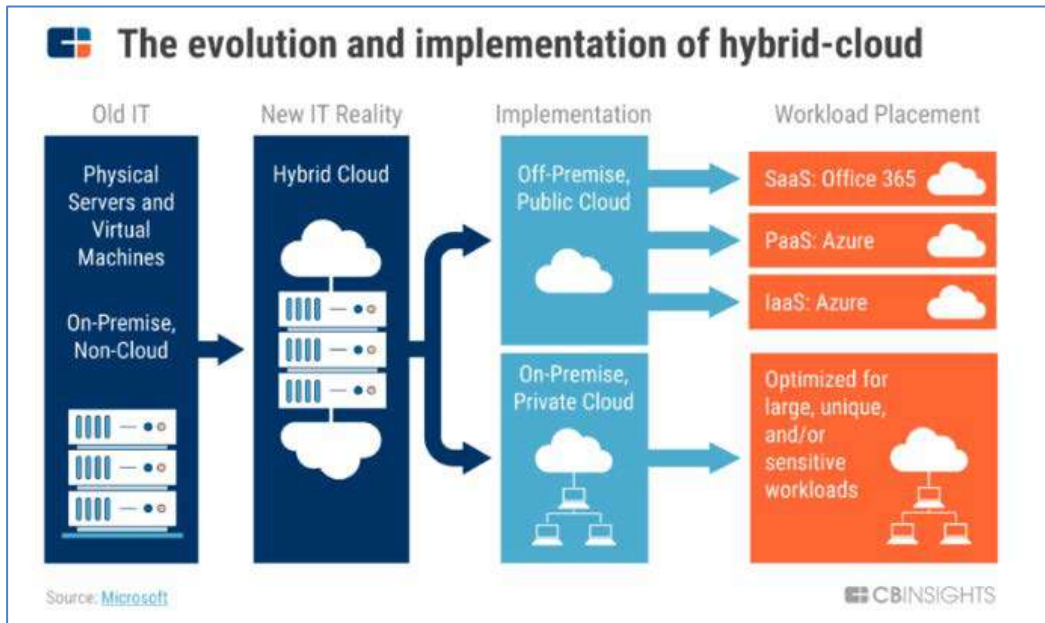
See below graph illustrating this business model

⁴³¹ Microsoft Azure is a cloud computing service for building, testing, deploying and managing applications through MS-managed data centers.

⁴³² Wikipedia, https://en.wikipedia.org/wiki/Microsoft_365

⁴³³ Cloud Wars, interview, 6 March 2020, <https://cloudwars.co/microsoft/microsoft-1-in-cloud-cfo-amy-hood-bullish-on-future/>

Figure 99. Hybrid cloud services and Microsoft's product offering

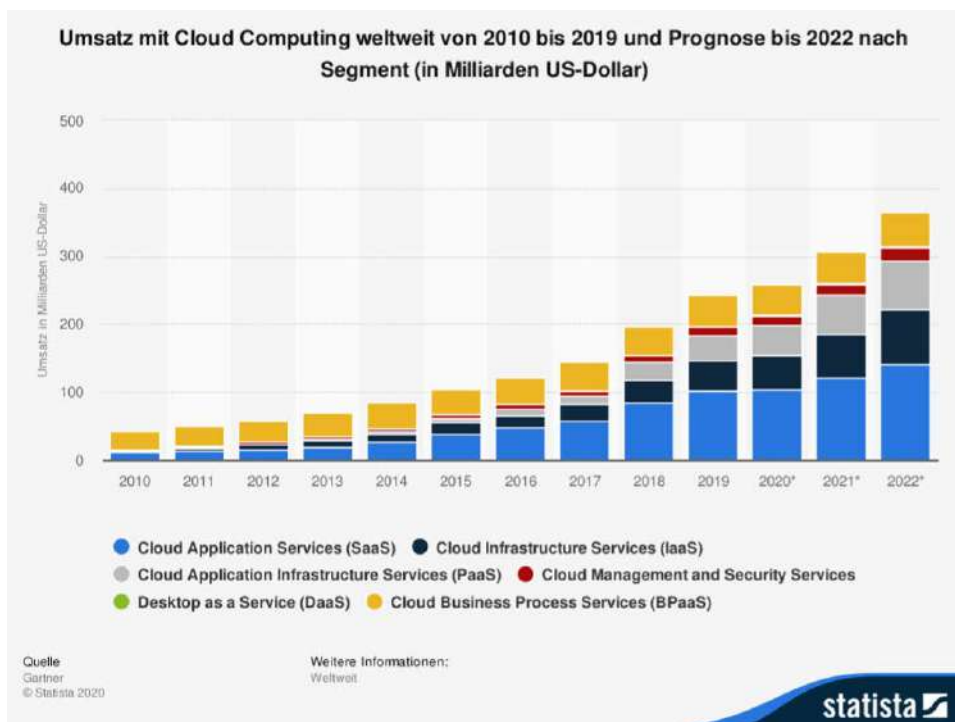


Market data illustrating the developments in the cloud service market

Currently, cloud infrastructure services form the fastest growing sector of the cloud computing market, although SaaS is - and is expected to remain - the largest segment overall. SaaS and PaaS together roughly amount to two-thirds of the revenue and IaaS for the remaining one-third.

Around half of the revenues for the global enterprise cloud computing market currently stem from North America, with Europe comprising another quarter of the market. However, the cloud computing market is growing steadily around the globe.

Figure 100. Revenue development cloud services worldwide 2010-19

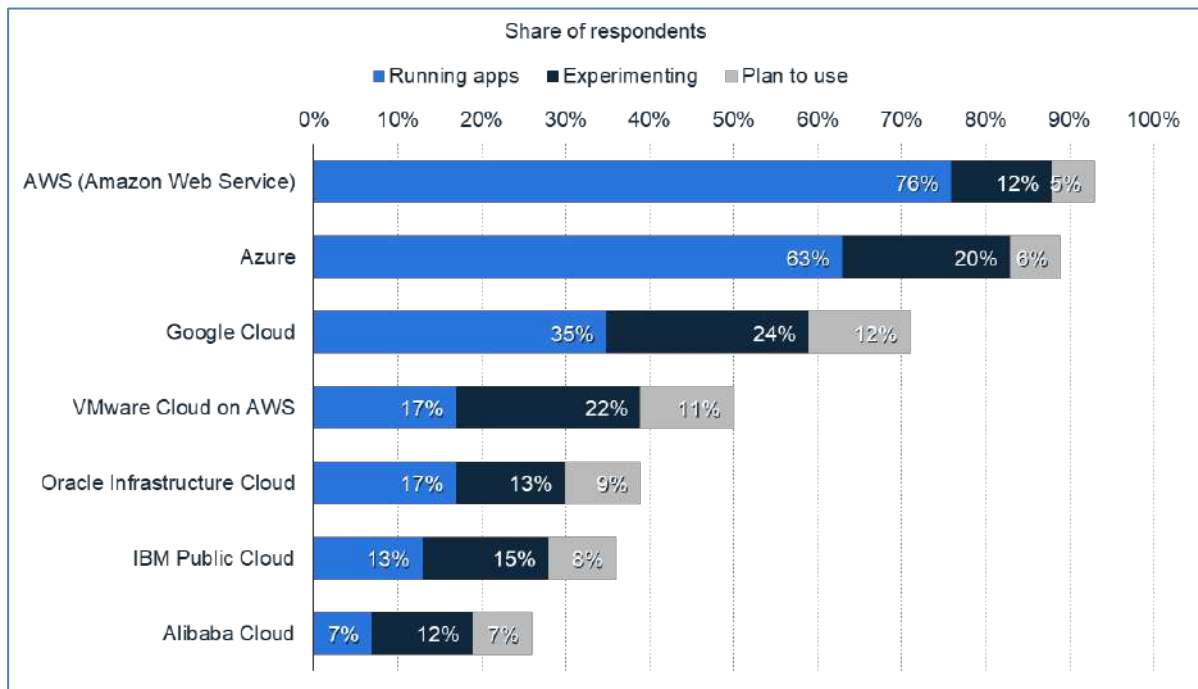


The largest cloud providers globally in the first quarter of 2020 were Amazon (32%), Microsoft (18%) and Google (8%). Amazon’s market share has been stable but declined slowly over the fourth quarter of 2018 and the second in 2019 with Microsoft and Google steadily increasing over the years. Forty-two per cent of the market is still held by other parties (see Figure 100).

Having only introduced the business segment in 2014, Microsoft’s intelligent cloud segment has grown rapidly, rivalling even the company’s long-established personal computing segment in terms of revenue generation.⁴³⁴

Figure 101253 displays data on the actual and planned use of public cloud services. The data show that international IT-professionals use multiple cloud providers as of 2020, around 76% of them stated that their organisation was currently running apps using Amazon Web Service (AWS), 63% Microsoft’s Azure, 35% on Google cloud and more on other cloud services.⁴³⁵

Figure 101. Current and planned usage of public cloud platform services running applications worldwide as of 2020⁴³⁶

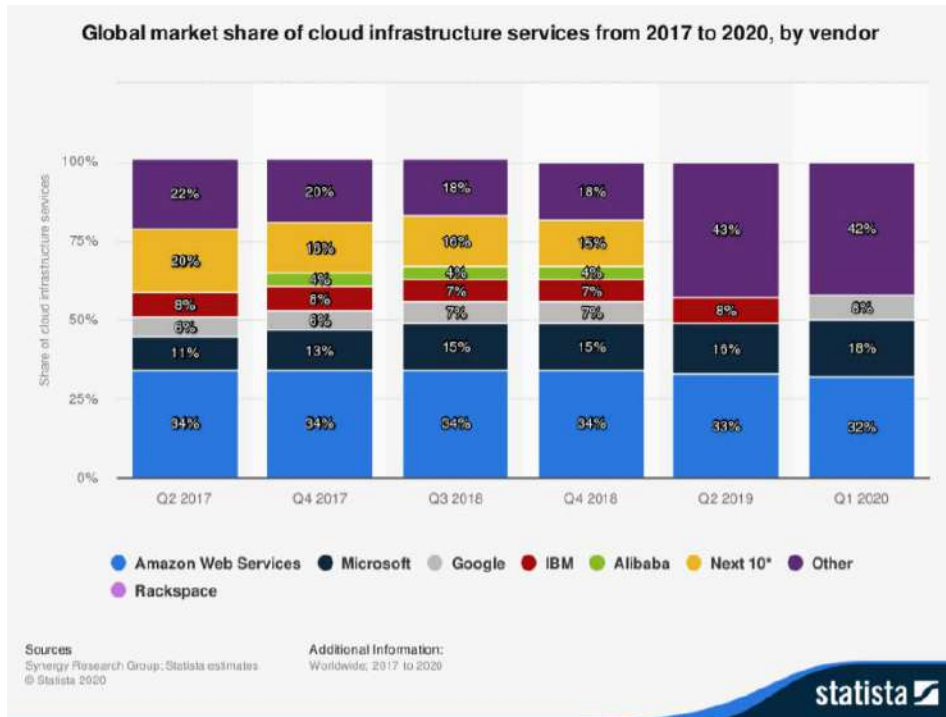


⁴³⁴ Statista 2020

⁴³⁵ Statista (2020), IT Services, <https://www.statista.com/statistics/511467/worldwide-survey-public-coud-services-running-application/>.

⁴³⁶ Statista (2020), IT Services, <https://www.statista.com/statistics/511467/worldwide-survey-public-coud-services-running-application/>.

Figure 102. Market shares IaaS cloud services worldwide 2017-20



The development of public cloud services has enjoyed strong revenue growth in Europe (see below graph) that is comparable to revenue growth worldwide. The second graph shows that for the overall European cloud market the yearly growth is however expected to flatten from 20% this year to 12% by 2025.

Figure 103. Revenue European cloud markets 2016-2025

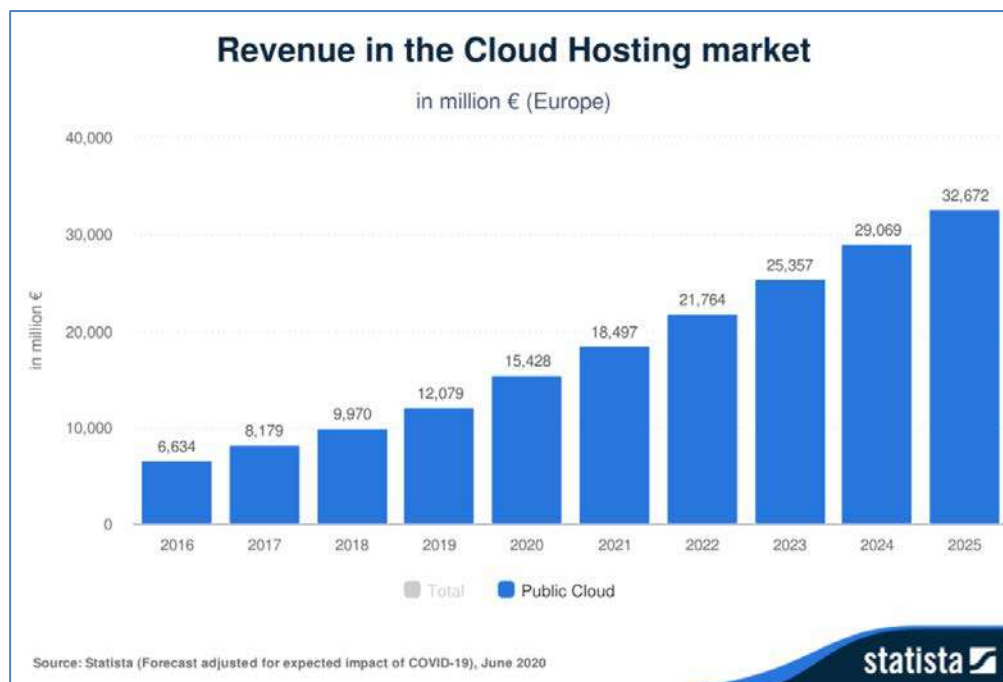
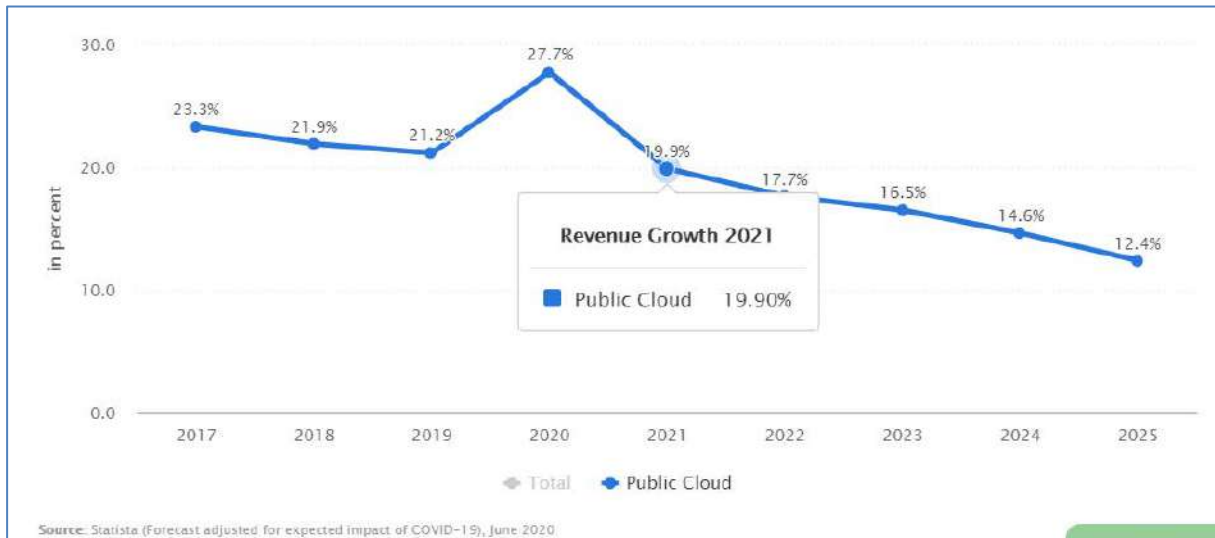


Figure 104. Revenue growth European cloud services 2017-2025

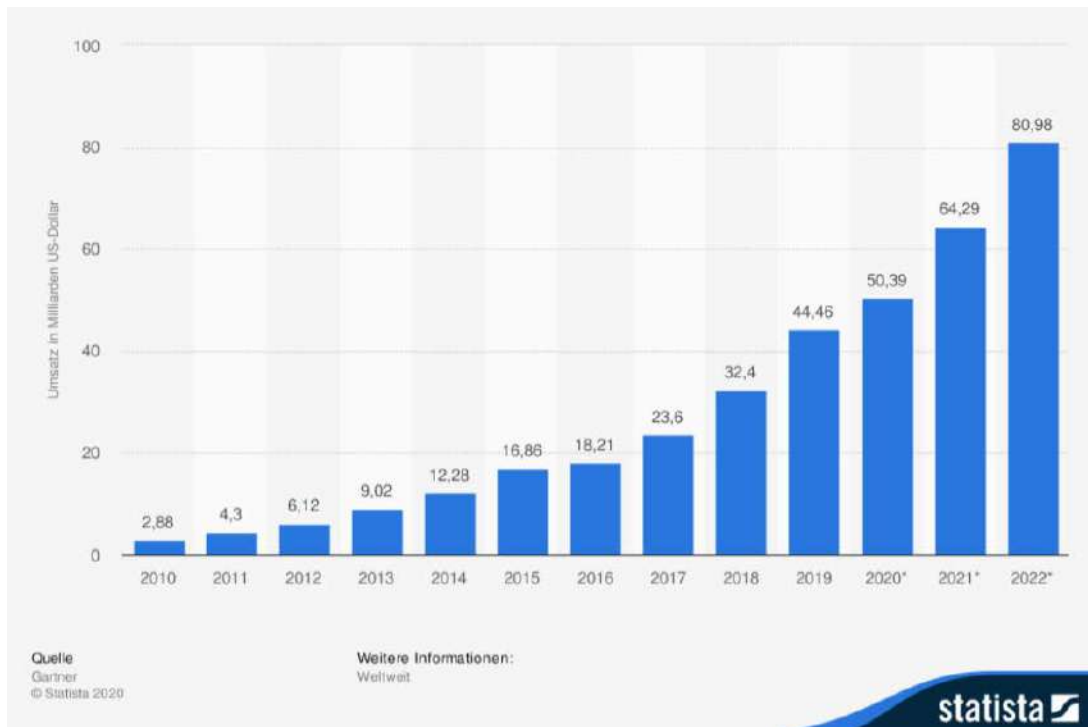


The following sections describe the different market segments in the cloud.

IaaS and PaaS cloud services developments and prognoses

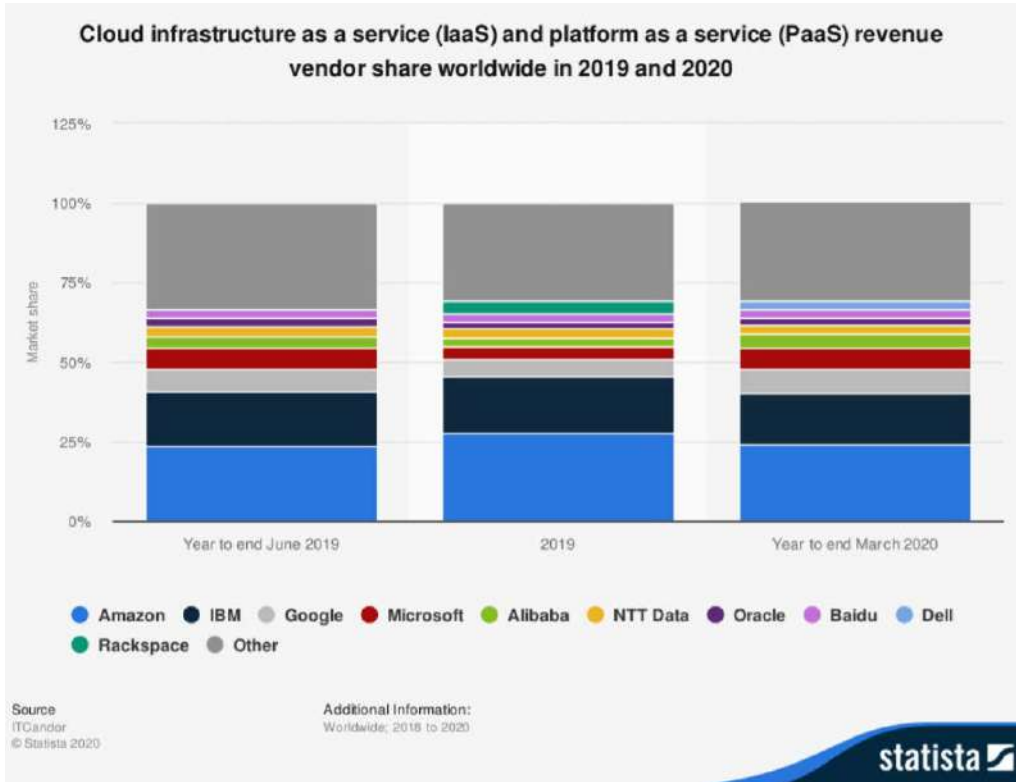
Globally, the IaaS cloud market has grown strongly from year to year (see below graph) and this is expected to continue. The same trend applies for Europe.

Figure 105. Revenue IaaS worldwide 2010-22



The following figure shows that, worldwide, Amazon is clearly the largest player in the IaaS and the PaaS cloud markets with roughly 25% followed by IBM (15%), Google (7%) and Microsoft (5%).

Table 31. Market share IaaS cloud market worldwide 2019-20



In Europe, in the IaaS and PaaS market including the (smaller) private cloud services, Amazon is also the largest player, however contrary to worldwide, Microsoft follows directly after Amazon.

European cloud infrastructure service revenues (including IaaS, PaaS and hosted private cloud services) are currently growing at 38% per year. The four largest country markets are the UK, Germany, France and the Netherlands which, in aggregate, account for 63% of the total. While much smaller than the US market, European cloud revenues are growing more rapidly.

Table 32. Revenue ranking European cloud infrastructure service providers, Q1 2020

Rank	Europe	UK	Germany	France	Netherlands	Rest of Europe*
1	AWS	AWS	AWS	AWS	AWS	AWS
2	Microsoft Azure	Microsoft Azure	Microsoft Azure	Microsoft Azure	Microsoft Azure	Microsoft Azure
3	Google Cloud	Google Cloud	Google Cloud	OVH	Google Cloud	Google Cloud
4	IBM	IBM	Deutsche Telekom	Orange	KPN	IBM
5	Salesforce	Rackspace	IBM	Google Cloud	IBM	Salesforce
6	Deutsche Telekom	Salesforce	Oracle	IBM	Oracle	Swisscom

Note: * Rest of Europe refers to the European countries excluding UK, DE, FR and NL.

Source: Synergy Research Group

“Similar to the US and most of the APAC region, Amazon and Microsoft are the clear market leaders in Europe, both for the region as a whole and in each of the major European country markets,” said John Dinsdale, a Chief Analyst and Research Director at Synergy Research Group. “Behind the top two the battle is being played out between Google, IBM, other smaller global cloud providers and some major local telcos and IT service providers. There is no shortage of companies fighting for a share of the market, but across the region as a whole the top six cloud providers control three quarters of the market and their share has been increasing. Given the importance of scale, global presence and deep pockets, it will be difficult for any of the smaller cloud providers to change that picture.”⁴³⁷

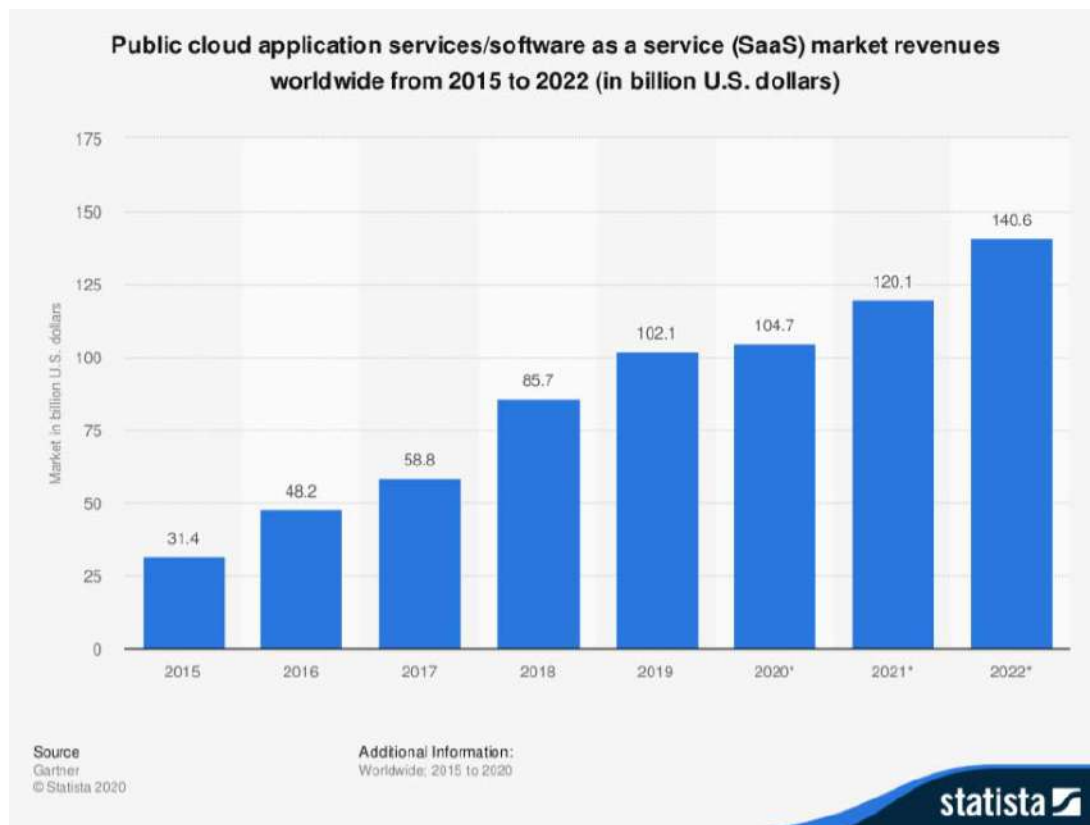
SaaS market and prognoses

As noted, the SaaS cloud segment is the largest public cloud category (50-70% of the total public cloud services market). The predicted annual growth until 2022 is around 20%.

Globally, Microsoft is clearly the largest vendor in the SaaS cloud category as shown in the second graph with 16%, followed by Salesforce (14%), IBM (4%) and Oracle (3%).

From 2015 onwards, especially Microsoft’s and Salesforce’s market share has increased strongly while IBM remained constant and Oracle declined slightly.

Figure 106. Revenue SaaS market worldwide 2015-22



⁴³⁷ Synergy Research Group, 7 May 2020, <https://www.srgresearch.com/articles/amazon-microsoft-lead-cloud-market-all-major-european-countries>

Figure 107. Market shares per vendor SaaS market worldwide 2015-19

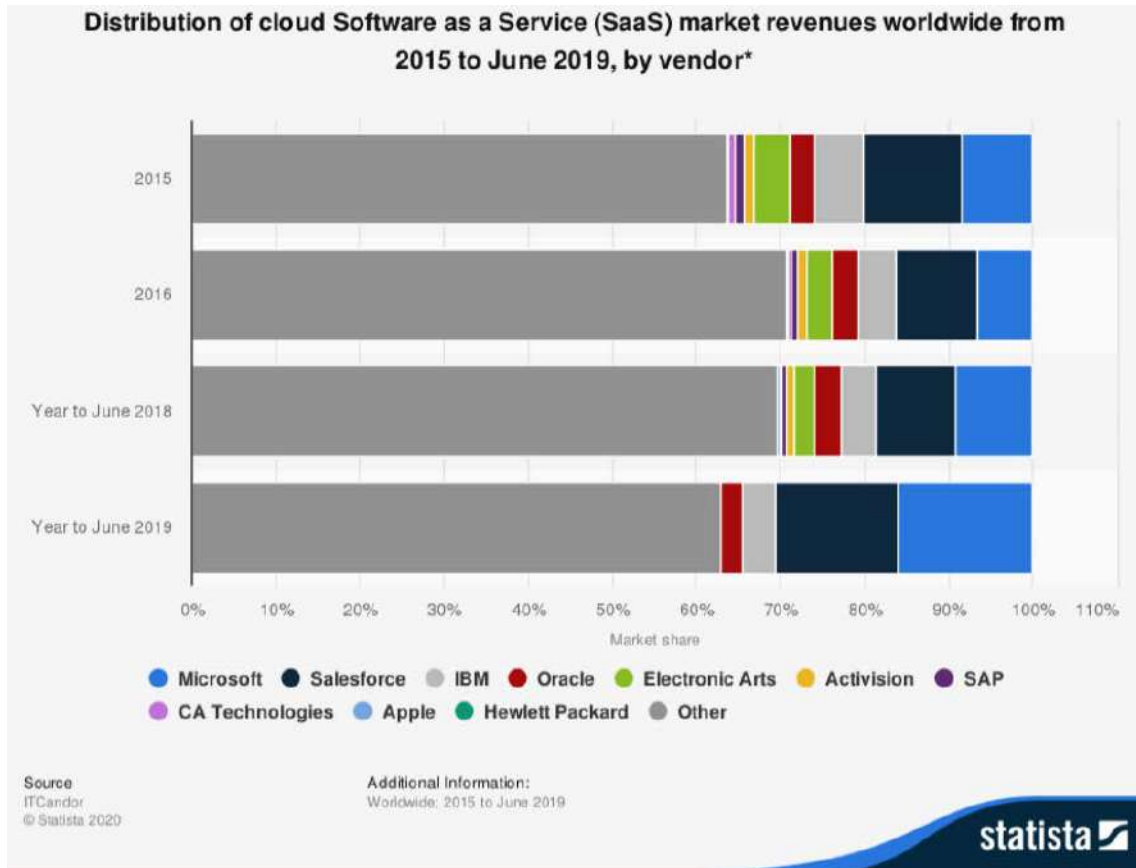
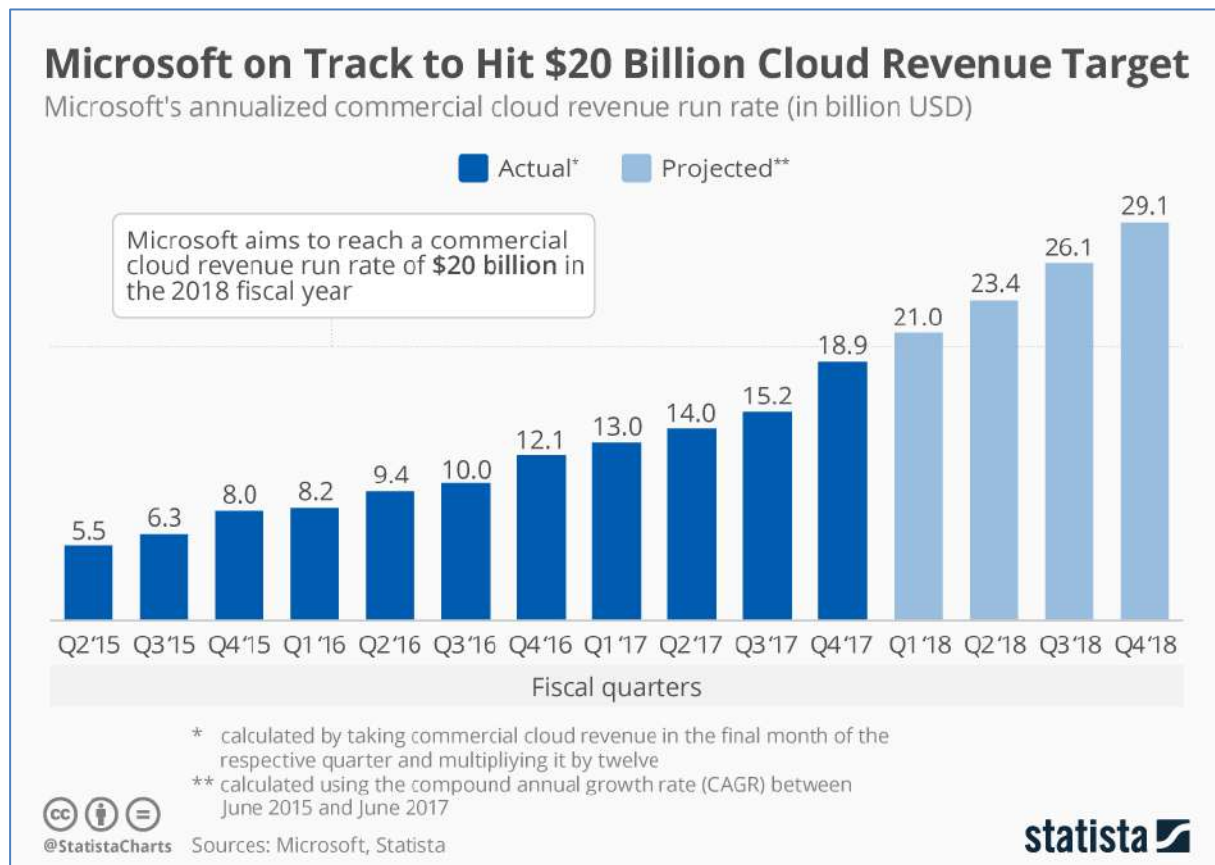


Figure 108. Microsoft's cloud software revenue worldwide 2010-18



Microsoft is still on track to reach the ambitious target it set back in April 2015 for its cloud business. CEO Satya Nadella said in 2018 that his company's goal is to reach a \$20 billion revenue run rate for its commercial cloud services (Office 365 commercial, Azure, Dynamics Online, and other cloud properties).⁴³⁸

An analyst stated it in January 2020⁴³⁹ in this manner; "*Microsoft Blows Away Amazon in 2019 Cloud Revenue: 30% Bigger*" and added the following comments:

- *For the four quarters making up calendar 2019, here are the revenue figures for Microsoft's commercial-cloud business: \$9.6 billion, \$11.0 billion, \$11.6 billion, \$12.5 billion. Those add up to a calendar-year total of \$44.7 billion.*
- *For those same four quarters, the estimate for AWS is around a calendar-year total of \$34.8 billion.*
- *Microsoft's overall cloud revenues are indisputably larger than those for AWS. They are rising more rapidly than those for AWS. And that pattern has been building now for several quarters.*
- *There's no question that AWS is the leader in the category it created: public-cloud IaaS. But over the past several years, the cloud has surged past that early-stage model. While businesses today are surely continuing to embrace IaaS, they see it as in many ways an efficiency play and an excellent cost-cutting approach.*
- *Meanwhile, those same business leaders are looking to the software side of the cloud—PaaS and SaaS—as the true cloud catalysts for change, transformation, and differentiation. And because Microsoft plays aggressively at all three layers of the cloud, whereas AWS is primarily driven by IaaS, Microsoft has become #1 by delivering huge value to business customers via an end-to-end approach.*

Possible leveraging by Microsoft with anti-competitive effects on the cloud market

As noted before, according to the interpretation of tying and bundling by the European courts, it is about possible leveraging effects MS has on the cloud market with anti-competitive effects.⁴⁴⁰

This study involved scanning MS' commercial approach, general positioning in the cloud market and developments in the cloud market to review what the possible chilling effects on competition in the European cloud market might be (although most likely also for the global cloud market). Not all of these are related to the bundling of MS Office services to its cloud services but are noted for completeness. We distinguish the possible leveraging of:

- scale and presence;
- market positioning;
- pricing policies;
- bundling and/or product integration; and
- switching issues.

Leveraging MS' scale and presence in the cloud market

⁴³⁸ Statista 2018

⁴³⁹ Cloud wars, 30 January 2020, Bob Evans, <https://cloudwars.co/microsoft/microsoft-cloud-revenue-blows-away-amazons-by-30-for-2019/>

⁴⁴⁰ Stefan Holzweber (2018) Tying and bundling in the digital era, European Competition Journal, 14: 2-3, 342-366, DOI: 10.1080/17441056.2018.1533360, <https://doi.org/10.1080/17441056.2018.1533360> , Page 364.

Providing cloud services requires own data centres, which are highly capital intensive. Cost efficiency is driven by scale; the larger and more data centres, the cheaper the cloud provider can purchase the required hardware, build the data centre and manage them. Considering the presence of very large corporations in the European cloud market, it is highly unlikely that there will be new (European) entrants. It is more likely that the European (and for that matter the global) cloud market will further concentrate.

Microsoft has an excellent cash position to invest in the required infrastructure with stable revenue over the years and gross margins above 60% and more than 39 billion USD net profit in 2019⁴⁴¹. This income stream will become even more stable as MS continues to shift from one-time license fees for a certain period (mostly 60 months) to so called Client Access Licenses, which are monthly subscription fees.

In addition, sufficient geographical presence in Europe is an important factor in the cloud market. In the IaaS cloud market where companies rent infrastructure, companies would need to visit the data centre from time to time to manage their applications. In addition, response times might be an issue for business-critical applications and data. With PaaS, national presence might be less important as access can be from everywhere and response is not critical when developing applications. However, in the SaaS cloud market where companies host their entire infrastructure including their applications, response time will be important. If European companies also have activities in regions outside Europe, it is an advantage to choose a cloud provider with a presence in these regions. MS has a worldwide presence and therefore has an advantage over cloud providers mainly active in Europe such as Salesforce (mainly active in DE, CH, AT).

Leveraging scale is not directly linked to bundling Office with cloud services, but it is a relevant aspect for the cloud market, which MS can apply.

Leveraging MS positioning in the software and cloud market

Leveraging market positioning is about the fact that MS is uniquely positioned in that it is active in almost every software segment, which has already shifted or will shift towards cloud services. Consumers and Companies have various IT requirements; from the basic use of desktops and laptops with mostly Windows operating system and MS Office applications to email servers, network storage, databases software, software development tools, business intelligence to Customer Relationship Management (CRM) and Enterprise Resource Planning (ERP) systems. All of these applications can be outsourced in the cloud in the PaaS/SaaS model. In most of these segments MS is in the top 5 and in several already has a leading position.

Hence, it is not only the bundling of MS Office 365 with MS Cloud services in general but also the bundling by MS of different categories of cloud services which could have a detrimental effect on competitors, which are only active in one or several cloud software segments.

Following table shows the latest market position of MS worldwide (marked in green), its main competitors and the development of the respective market/revenues shares in that segment.

Table 33. Market shares per software segment 2018/19

Software segment	1	2	3	4	5
Enterprise SaaS 2019	Microsoft (17% - stable revenue share)	Salesforce (11%, strong growth)	Adobe (10%)	SAP (6%)	Oracle (6%)

⁴⁴¹ Microsoft annual report 2019

Enterprise application (ERP) 2019	SAP (8% market-share)	Oracle (5%)	Salesforce (5%)	Intuit (3%)	Microsoft (2%)
Customer Relationship management (CRM) 2018	Salesforce (9.4 bln USD revenue)	SAP (4)	Oracle (2.7)	Adobe (2.5)	Microsoft (1.3)
Customer Service Application 2018	Salesforce (45% revenue share – strong growth)	Oracle (9%)	SAP (8%)	Microsoft position unknown	
Salesforce productivity & management 2019	Salesforce (39% market-share)	SAP (11%)	Microsoft (10%, growth)	Oracle (9%)	Veeva (6%)
Human Capital Management 2018	SAP (2.2 bln USD revenue growing)	Microsoft (Linkedin 2)- strong growth	Workday (1.9) – strong growth	ADP (1, stable)	
Big Data/ Analytics 2018	Oracle (8 bln USD, growing)	Microsoft (7, growing)	SAP (7, small growth)	IBM (5, stable)	SAS (3, stable)
Business Intelligence 2018	Microsoft (2.6 bln USD, growth)	SAP (2.1, stable)	IBM (1.9, stable)	SAS (1.5, stable)	Oracle (1.3, stable)

Source: Statista 2020, SAP report, competition.

In 4 of the 8 segments, MS is either the leader or the second provider and in all of these markets, MS' position is growing significantly. Only in 3 segments is Microsoft outside the top 4 (ERP, CRM and Customer Service Applications). However, also for these segments the SaaS model (where MS has the leading position) will become more and more important. As illustration, MS already has the lead in the SaaS variant of the Enterprise application market and it is expected that for 2019, 75% of the spending on CRM software is on Software as a service (SaaS).⁴⁴²

Leading competitors in segments, where MS is not leading, are SAP, Salesforce and Oracle. It is also no coincidence that SAP's new CEO, per 1 August 2020, Alexander Kläger, previously led SAP's cloud division.⁴⁴³ Similarly, MS' current CEO, Satya Nadella, previously led MS' cloud division before he became CEO in 2013.

The expectation is that MS will leverage not only its leading position in the Office application market and the related SaaS cloud market for other software markets in the years to come as more and more of these services will be delivered as SaaS.

⁴⁴² Forbes, 22 June 2019, <https://www.forbes.com/sites/louiscolumbus/2019/06/22/salesforce-now-has-over-19-of-the-crm-market/#77cfb0da333a>

⁴⁴³ Handelsblatt, Nr. 146, 31 July / 2 August 2020, Page 62, <https://www.handelsblatt.com/technik/it-internet/personalwechsel-sap-deutschlandchef-daniel-holz-wechselt-zu-google/26042358.html?ticket=ST-2382080-GcpkEZgLfjIhIm3iay-ap6>

Another aspect of MS's existing stronghold in the Office application market, is that end users are familiar with MS interfaces. The advantage for end users is that these interfaces remain while integration increases with MS's other services to provide end users data from BI/Analytics tools, but also CRM and ERP systems. Indicative here is MS's leading position in the BI/Analytics market and the Enterprise SaaS market.

It is only in the CRM/Customer Service segment that competitors Salesforce, SAP, Oracle are stronger than MS. However, also these parties require integration with MS Office services in order to get for example reporting data in Powerpoint and Word based reports or MS Analytics. MS might hinder the integration between its Office and/or Analytics software with these applications to promote its own (fully integrated) services in the CRM and ERP segment.

Leveraging of bundling and related pricing of MS 365 with cloud services

This review is not meant to provide an exhaustive review of MS bundles and its related pricing as they might differ slightly over countries and over time. It merely provides an illustration of possible leverages, which likely are used to reinforce MS's market position versus competitors, who are only active in parts of the cloud market.

Pricing issues and bundling are reviewed in combination. Product integration is another aspect, which will be discussed in the Slack case. In general, MS integrates its services more and more, which is to the benefit of the customer. At the same time, it uses this integration as sales argument versus competitor who only provide a single or several applications and need to integrate with MS office and other services via open APIs.⁴⁴⁴ Despite the obligation on MS to provide open APIs to its Office Suite and other services, there is always an advantage for MS versus these providers in terms of knowledge, documentation on APIs and notification when APIs change. This practically means that customers using multiple providers beside MS can encounter partly non-functioning APIs from time to time where this is not or barely not the case when they buy all software from MS.

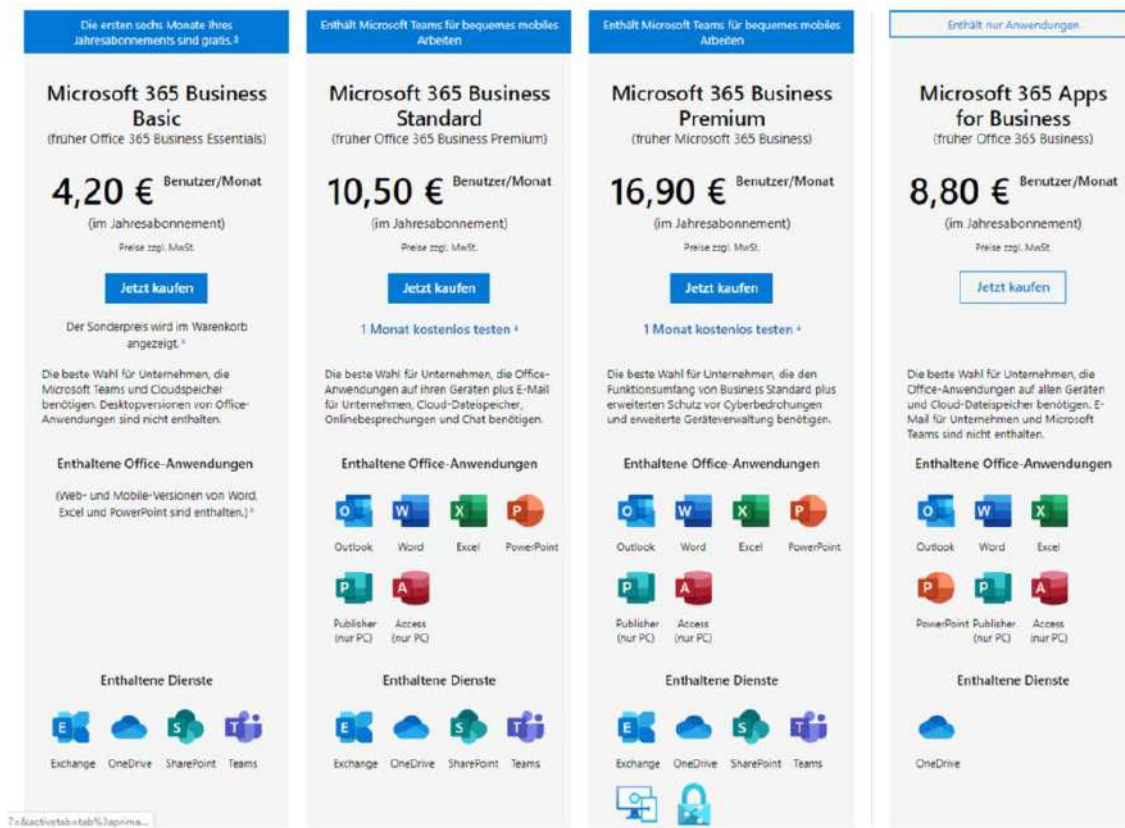
In addition, it could well be that the PaaS and the SaaS market will grow at the expense of the IaaS market as the focus of companies will be more on their crucial applications and the development thereof and PaaS/SaaS cloud services include the required infrastructure as well. This would imply a shifting market share to cloud providers with a focus on applications like Microsoft, Salesforce, Oracle and SAP.

Historically, companies had the choice of acquiring MS 365 (Office) products for a one-time licence fee and a certain support period (5 years). MS currently actively pushes its customers to a monthly subscription fee, the so-called Client Access Licence (CAL). The below graphic shows MS 365 bundles/packages by way of an example of MS bundles and price structures (prices might vary in time and per country).⁴⁴⁵

⁴⁴⁴ Application Programmable Interfaces

⁴⁴⁵ <https://www.microsoft.com/de-de/microsoft-365/business/>

Figure 109. Microsoft's 365 bundles



Source: Microsoft.de, August 2020

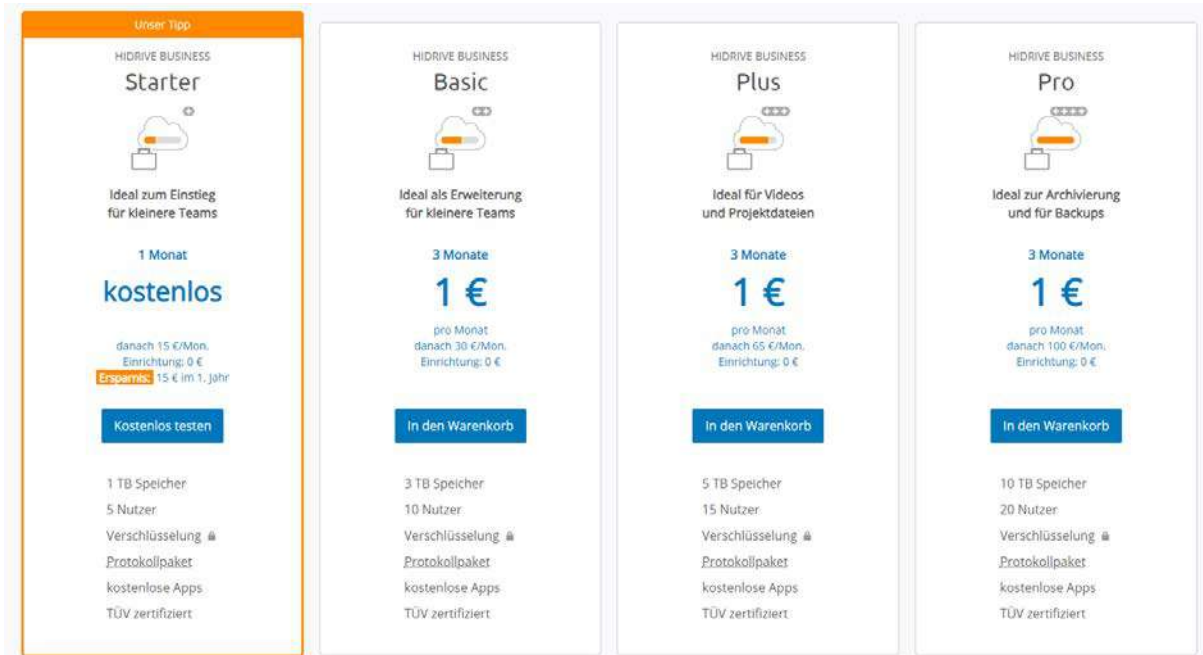
The historic one-time licence fee could, for a medium sized company (75 users), roughly vary between € 20,000 for the classic Office programs and € 50,000 including Mail server, SharePoint, Teams and cloud storage OneDrive as well. Based on the complete setup for 75 users, this represents a monthly cost per user of between € 4.40 and € 11.10.⁴⁴⁶

The MS 365 Business Basic package (the left-hand column in the above picture) offers purely web-based Office applications. For companies used to having Office installed on their PCs, laptops and network, the MS 365 Apps for Business package in the right column is comparable. This package costs € 8.80 per user per month for Office 365 applications like Word, Excel and PowerPoint and the bundled cloud services OneDrive. This offers 1 TB data cloud storage per user. As OneDrive is also packaged in the cheapest package, companies which move from the one-time licensee fee model to a monthly subscription get this additional cloud storage and do not need any more standalone providers of cloud storage like HiDrive, who offer this from € 15 per user monthly.⁴⁴⁷ See example below.

⁴⁴⁶ (€ 20.000 / 50,000) / 60 months / 75 users

⁴⁴⁷ Strato.de, HiDrive cloud Storage Business Starter, <https://www.strato.de/cloud-speicher/hidrive-business/>

Figure 110. HiDrive commercial offer of cloud storage for businesses



Source: Strato.de, August 2020

A similar price squeeze is noted when reviewing the MS 365 Business Standard package for €10.50 per user per month. This package contains not only the Office applications but also the licence for Exchange server and the additional cloud collaboration services SharePoint and Teams. These additions are received for €1.70 extra per user per month⁴⁴⁸. This bundling has multiple effects:

Competing providers offering cloud collaboration tools have to compete with MS cloud collaboration services which are bundled-in almost for free. Even if functionality of competitors is better, this invites companies to try MS services and makes it harder to compete in these markets (see the Slack case as well).

If companies already have bought their exchange server licence from MS, they can purchase additionally the hosted exchange services. Price information on this upgrade is not available, but it could be a further indication of leveraging if this upgrade from MS costs significantly less than buying hosted MS exchange services from third parties like United Hoster (see below figure). MS exchange hosting for businesses would at least cost €5.75 per user per month (and more likely around the €8.68 due to the size of the average business mailbox.⁴⁴⁹ See also below graph on the dominant position of MS for its Exchange server (78% of companies worldwide use it).

⁴⁴⁸ Price MS bundle 'Business Standard' (€10.5) – Price for bundle '365 Apps for Business' (€ 8.80)

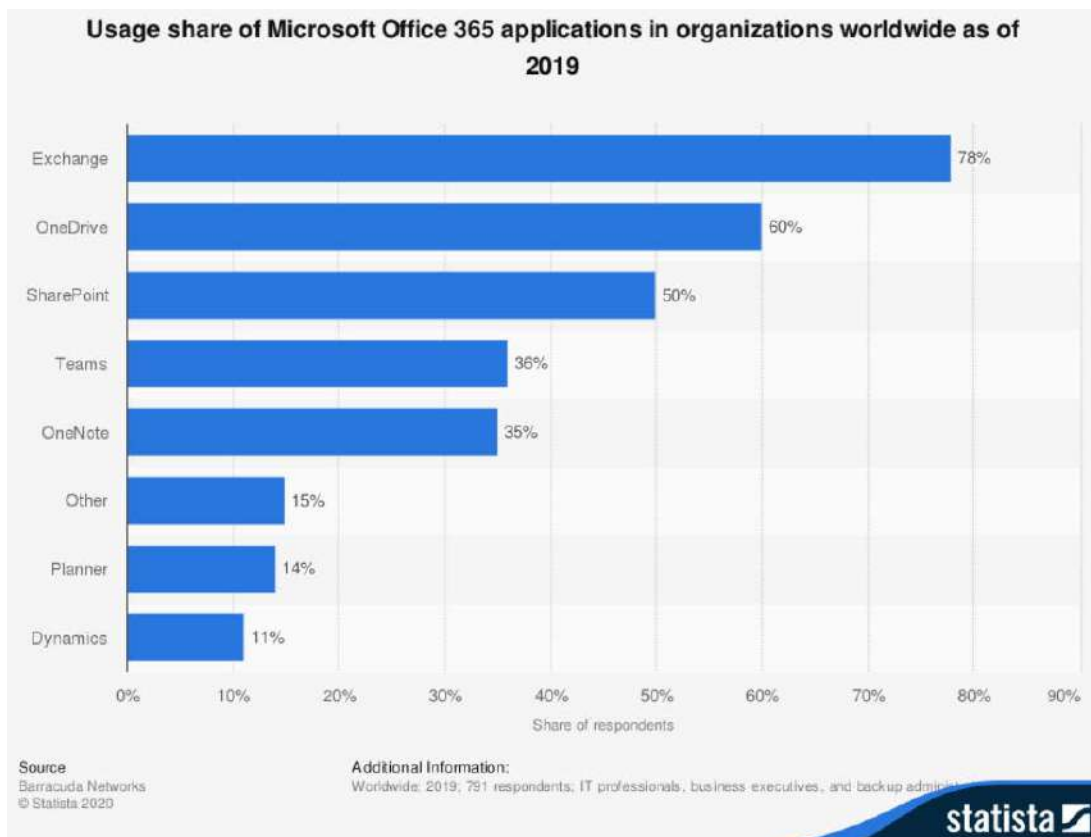
⁴⁴⁹ United Hoster.de, <https://www.united-hoster.de/hosting/e-mail/hosted-exchange.html#Produkte>

Figure 111. Example of MS exchange hosting by United Hoster

Mailbox Basic	Mailbox Professional	Mailbox Enterprise
€ 2,83 pro Monat*	€ 5,75 pro Monat*	€ 8,68 pro Monat*
sofort verfügbar	sofort verfügbar	sofort verfügbar
5 GB Postfachgröße	10 GB Postfachgröße	50 GB Postfachgröße
Outlook Web Access	Outlook Web Access	Outlook Web Access
IMAP/POP3: ✓	IMAP/POP3: ✓	IMAP/POP3: ✓
ActiveSync: x	ActiveSync: ✓	ActiveSync: ✓
Outlook-Zugriff: x	Outlook-Zugriff: ✓	Outlook-Zugriff: ✓
Outlook 2016 enthalten: x	Outlook 2016 enthalten: x	Outlook 2016 enthalten: ✓
Optional: Archivierung - 6,50 €	Optional: Archivierung - 6,50 €	Optional: Archivierung - 6,50 €
JETZT BESTELLEN	JETZT BESTELLEN	JETZT BESTELLEN

Source: United-hoster.de, August 2020

Figure 112. Usage share of MS Exchange in organisations worldwide



Switching issues

In general, switching cloud providers which host a company's essential applications and data is cumbersome.

If a company is 'only' renting infrastructure (IaaS cloud services) then it requires already significant effort. It would need to contract a new cloud provider offering similar infrastructure and migrate all its used operating software, database management and development tools and applications and data. As businesses mostly depend on the applications and data used, such a migration would require a double setup where the existing infrastructure would continue and the new infrastructure runs in parallel for a certain test period to check if all functions well on the new infrastructure. This requires not only from the IT personnel a significant effort but also from end users using the applications and data as they need to continue their daily work (with the existing applications hosted by the existing cloud provider), but also check if the applications and data in the new infrastructure functions correctly. Only after a successful trial period can the company migrate to the new infrastructure and cancel the services from the previous IaaS provider.

In addition to the above, for companies which rent infrastructure and related operating software and database and developer tools from a cloud provider (PaaS cloud services), there is an additional complication as the company's application was built using the cloud provider's database management and developer's tools specifically for their cloud platform. Architecture with other PaaS providers might be different, as well as development languages, libraries, APIs or operating systems that were used to build and run applications in. When changing PaaS cloud providers, in addition to the efforts described when changing IaaS providers, companies may have to either create a new application or make major changes.

When companies are using SaaS cloud services, they have chosen certain software to work with for Office applications and/or CRM and ERP and are renting this together with the required infrastructure. Hence, while switching from cloud provider, customer data needs to be migrated to the new cloud provider and will cause switching costs. In addition, it could be that certain applications change as well. Experience shows that there is always resistance from end users to change user interfaces or change applications they are used to working with.

Another indicator of leveraging in the SaaS cloud market is when customers mainly use MS applications hosted by MS itself and wanting to switch to, for example, AWS or Oracle but still maintain their MS applications. In this scenario, the new cloud provider still has to pay MS license fees for the use of their applications and need to add these costs to its Infrastructure costs and other costs managing the MS service. The retail prices of MS for hosting their own services can't be below the cost price of a competing cloud provider plus a reasonable margin.

Characteristics that enable Microsoft to act as a "gatekeeper"

- Controlling the user interface to end customers whether that be the Office applications where the data is presented or the analytics tools with which data is analysed.
- Dominant market share in certain essential market segments and bundle these in certain bundles to steer customer choices, which include also cloud services competing in market segments where MS is not leading yet.
- Presence in all market segments, hence the availability of services, which can be used to offer alternatives to end customers and can be further developed to counter applications from competitors.
- Availability of sufficient R&D funds to develop its services (or buy a complete segment like LinkedIn) so that functionally can be improve and added to their own portfolio when running behind competing services. Furthermore, MS can afford high sales costs to push sales.
- Strong control over its reseller channel contractually. Resellers need MS for their Office and Mail server market.

- Strong control over other application providers using MS cloud storage and APIs to integrate with MS Office 365. These partners need to participate in a 'Cloud Storage Partner Program' which amongst others obliges them to promote MS Office 365 to any of its end users that include or could include Office files for viewing or editing. If these Office 365 promotional requirements are not fulfilled, the partner needs to pay a yearly fee for the Office integration of either 10,000 USD or 0.10 USD per user, whatever is the most. Also the partners need to provide MS with metrics about the integration between the partners' application and MS Office, like the number of Office documents opened from the partner's application or the % of users that have explicitly disabled the integration with Office.

iv. Evidence of the problem and associated harms

The benefits of MS' position and approach is that customers benefit more and more from integrated MS services and that their service offering is extending to all segments of the market and most likely will have the option to host these services with MS as well in the near future. Competitive services have been successfully pushed by MS to develop better services itself for attractive bundles with MS 365 in the process of counteracting the competition.

From the data provided it seems that competing large firms like SAP, Oracle, IBM are not growing as fast as MS. Amazon is still growing in the IaaS market but the SaaS market where MS is leading is the largest segment and the expectation is that the PaaS/SaaS market segments will become even larger than the IaaS segment.

No information is available on the impact of licensing prices for end customers. There is a switch from one-time fees to comparable monthly subscription, which is less capital extensive for businesses but for home users will amount to a higher monthly expense. Cloud services will make switching more difficult as customers have their data and applications in the cloud and need to migrate these to other cloud providers. Restriction of innovation is difficult to prove as MS does invest large sums in its R&D and keeps developing its services further. A critical point here is the openness of MS services via APIs, on which single solution providers are dependant.

Issues root in the dominant position of MS in the Office and Exchange market and already in parts of the cloud market (Enterprise SaaS, BI, Human Capital Management). MS' success is clearly reflected in its strong growth in almost all segments.

There are clearly scale advantages for MS in its infrastructure business and in its software business where one has one time development costs. MS' overall gross margin was 60 % for 2019.⁴⁵⁰

Slack confirmed the leverage of MS by bundling its MS 365 with cloud software like Teams, which competes against their Slack application and hinders their further market development.

v. Solutions and impacts

The root of MS's potentially problematic tying practices from MS 365 and other cloud services lies in its dominant position in the OS, Office and Exchange markets. This gives MS the ability to use substantial profits from those markets to cross-subsidise the still reasonably competitive market environments of IaaS, PaaS and SaaS. A profound monitoring of MS's market share and the intensity of competition in its core market segments enables an assessment of its potential to cross subsidise its activities in other market segments. In combination with this, a simultaneous monitoring of MS's position in expanding markets (including cloud specific segments) can provide early warning signs for a potential market

⁴⁵⁰ Microsoft annual report 2019

tipping. A special focus should lie in this context on MS's bundled offers compared to those of independent single application providers.

Apart from observed market shares and other indicators, potentially harmful tying practices and cross-subsidisation is best evaluated based on internal cost data. A transparency obligation could be introduced to the effect that MS has to disclose relevant cost data towards competition authorities. In this way, econometric cost estimations could be conducted that shed light not only on MS's pricing margin in its core markets (OS, Office, Exchange), but also in other emerging segments. If pricing margins of additional cloud-based features as part of MS 365 bundle offers are found not only to be lower than the separately priced version but also to be negative, this would evident predatory pricing and anticompetitive nature of those bundled services. A related obligation to price the cloud-based features, which are part of a bundle, with a positive mark-up (hence cost-plus-pricing), could prevent predatory pricing and an overproportional gravitation towards those bundle products especially in the emerging cloud market segments. This would be a less invasive approach than dictating MS to offer Office 365 separately from any cloud-based service.

e. Case 4: Restriction of access and use of business users to data about their customers – Apple App Store

i. What is the problem/s associated with this case?

Apple is the producer of a variety of popular mobile communications devices (e.g. iPhone, iPad, AppleWatch), develops its own mobile operating systems (iOS, iPadOS, watchOS) and controls the sole marketplace for mobile applications on all of its devices (i.e. App Store). Therefore, Apple is in a unique market position as a provider of an integrated hardware and software ecosystem.

A major driver for this business is the App Store, a software distribution platform that allows third-party developers to sell mobile applications to Apple users.

Apple has a dual role as provider of the software marketplace for its devices and provider of applications for its own services (e.g. Apple Music), which are distributed via the App Store as well. This case study addresses the issues that arise from this dual role of Apple as platform provider and sheds light on the characteristics of competition between the platform provider and third-party developers as well as the effects on end customers (intra-platform competition).

Third-party developers are only allowed to distribute software via the App Store if they adhere to the guidelines imposed by Apple. These guidelines specify which types of applications Apple allows in its store (e.g. no Bitcoin miners), which technologies can be used by developers and which (commission) fees Apple imposes on third-party developers for access to and distribution of apps via the App Store. Apple reserves the use of several features of its operating system (e.g. NFC / mobile payment) to its own applications which hampers the development of third-party alternatives. Apple demands a cut of the revenues generated by third-party developers from the App Store (30% for one-time fees and first-year fees / 15% for subscriptions after a year).

In contrast to Google's Android, where the Play Store is the main (but not the only) app store, the Apple App Store is the only software marketplace that is available on iOS. Alternative software marketplaces are not available on Apple's operating system. Thus, third-party developers have no chance to circumvent the App Store to reach their customers that use the iOS operating system.

Third-party developers that compete with Apple's own software and services argue that Apple is creating restrictive rules for its marketplace, but does not play by the rules itself. Thus, Apple's App Store has been at the centre of recent complaints by app developers. In

the specific case of the music streaming service Spotify⁴⁵¹, which is in direct competition with Apple's own music streaming service Apple Music, Apple has been accused of preferencing itself in several ways:⁴⁵²

- Apple has access to additional data from customers and can directly communicate with them, while the options of Spotify on Apple's platform are limited.
- Apple is restricting access to its wider ecosystem of products for Spotify (e.g. Siri, HomePod).
- Apple demands a mandatory revenue share from third-party developers (incl. Spotify), which does not allow them to offer competitive prices compared to first-party services.

For years, Apple urged Spotify to use Apple's In-App Purchase service to collect subscription fees. In addition, Spotify claims that Apple has tightened up its App Store rules to make it more difficult for app makers to direct users to pay outside the Apple ecosystem / App Store.

In 2014, Spotify gave in and raised its fees (via App Store) by 30 per cent – from €9.99 a month to €12.99 a month – to take Apple's fees into account. This means that Spotify charged higher prices for its subscription via the App Store than on its own website to compensate the revenue share demanded by Apple.

Just one year later Apple introduced a Spotify competitor, Apple Music, which charged Spotify's former price of €9.99 a month. This complicated Spotify's market position as it not only competed against Apple's service but also had to return 30 per cent of its revenue to its competitor.⁴⁵³

In the following years, Apple Music was able to gain significant market share. At the beginning of 2019, Apple Music had more paid US subscribers than Spotify. Even though Spotify still maintains a global lead with respect to most active users, it shows that the US market embraces Apple Music with 28 million users in contrast to Spotify's 26 million.⁴⁵⁴

At the same time, Apple was able to gain \$156 million in revenue in a period of 4 years from Spotify's subscription fees. The revenue of Spotify's iOS subscriptions is depicted in the table below, with Spotify's total revenues in blue and Apple's share based upon the commission fees in red. In 2015 and 2016, Spotify was the top grossing app in the App Store globally. However, a significant decrease in revenue can be observed in the two consecutive years as Spotify tried to circumvent Apple's fees and encouraged users to subscribe on their website.⁴⁵⁵

⁴⁵¹ Spotify is an audio streaming service developed since October 2006 by the originally Swedish start-up company Spotify Technology S.A. Besides music, audio books, podcasts and videos can also be streamed. The online service is now available in more than 90 different countries, including large parts of Europe and America.

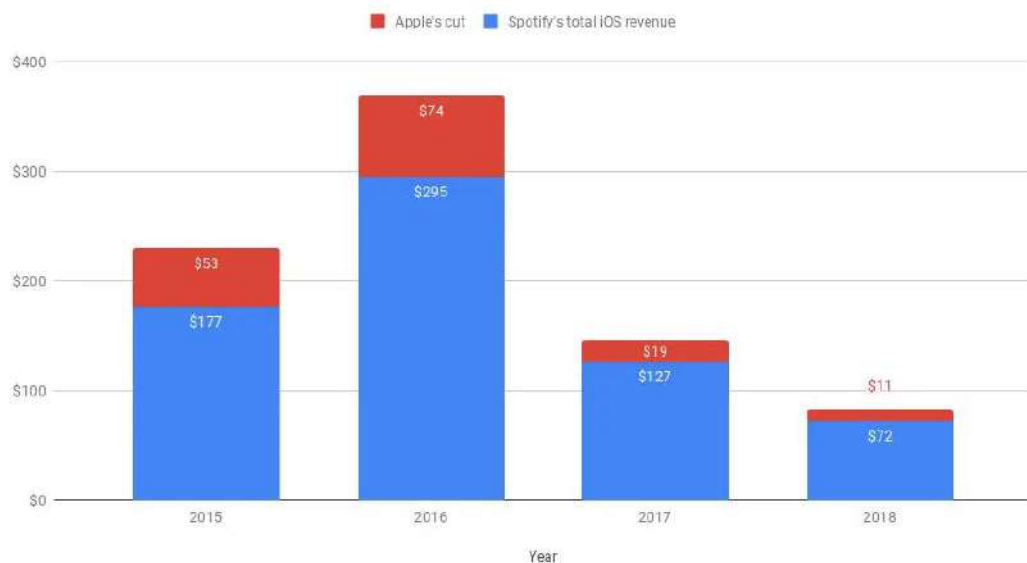
⁴⁵² <https://eu.usatoday.com/story/tech/2019/03/13/spotify-goes-after-apple-eu-complaint/3148723002/>

⁴⁵³ <https://arstechnica.com/tech-policy/2019/03/apples-in-app-purchase-rules-could-violate-european-competition-law/>

⁴⁵⁴ <https://arstechnica.com/gadgets/2019/04/report-apple-music-surpasses-spotify-with-28-million-paid-us-subscribers/>

⁴⁵⁵ <https://www.businessinsider.com/chart-economics-behind-spotify-war-on-apple-app-store-europe-antitrust-2019-3?r=DE&IR=T>

Figure 113. Revenue of Spotify's iOS subscriptions⁴⁵⁶



Source: businessinsider.com

Apple argues that the revenue share only applies if the exposure on the App Store brings new customers to a third-party business and not for customers that subscribed to the service elsewhere (e.g. on the website of the third-party business). However, third-party developers are not allowed to advertise services outside the Apple ecosystem via the App Store.⁴⁵⁷

When Spotify tried to circumvent Apple's system and direct users to its website, Spotify also claims that Apple responded by taking a long time to approve new versions of Spotify's iOS app.⁴⁵⁸

Despite competition from Apple Music and alleged discriminatory practices, Spotify has been able to increase its subscriber count and expand its lead in many national markets for digital music streaming services. However, it can be questioned to which extent Spotify was able to effectively compete with Apple on the Apple platform (i.e. intra-platform competition).

In 2019, Spotify reacted to the revenue share and competition by Apple by removing the feature to subscribe via in-app-purchases (IAP) for new customers. As a result, new customers can no longer subscribe through the platform, which reduced Spotify's exposure on the platform but, at the same time, allowed Spotify to avoid the revenue share imposed by Apple.

Recently, the European Commission opened a formal antitrust investigation into Apple's App Store rules following Spotify's and other third-party developers' complaints.⁴⁵⁹

Spotify's complaints about Apple's App Store practices are mirrored and complemented by Schibsted, a multinational media and internet group headquartered in Oslo, Norway. Also using the App Store, Schibsted states that they previously charged for their products (e.g. newspapers and magazines) via App Store and were also able to maintain a close relationship with their readers / users. However, the company criticised Apple for deciding to discontinue this model and charge a fee of 15-30% for subscriptions that are sold via the

⁴⁵⁶ <https://www.businessinsider.com/chart-economics-behind-spotify-war-on-apple-app-store-europe-antitrust-2019-3?r=DE&IR=T>

⁴⁵⁷ <https://developer.apple.com/app-store/review/guidelines/>

⁴⁵⁸ <https://arstechnica.com/gadgets/2019/04/report-apple-music-surpasses-spotify-with-28-million-paid-us-subscribers/>

⁴⁵⁹ https://ec.europa.eu/commission/presscorner/detail/en/ip_20_1073

apps. Schibsted claims that by imposing an “Apple Tax”, they are impeding new digital business models for the company.

In addition, Schibsted states that the lack of access to its own customer data is even more severe. Claiming that customer data is confiscated by Apple, Schibsted is unable to establish a connection to some of its customers. Not only do they lack knowledge about some subscribers via the App Store, but they also cannot reach customers with follow-up offers, information and questions about desired content.

Schibsted concludes that both problems in combination with changing rules and lacking transparency constitute a major obstacle for the company to efficiently compete in the market.⁴⁶⁰

ii. Legal context

European Commission – pending investigations into Apple App Store

In June 2020, the European Commission opened⁴⁶¹ antitrust investigations into Apple’s alleged anticompetitive practices in relation to its App Store rules for third-party developers of apps that compete with Apple, with three separate cases on:

- music streaming apps⁴⁶²;
- e-/audiobook apps⁴⁶³; and
- all other apps⁴⁶⁴.

According to the Commission, Apple’s practices that could breach article 101 TFEU on anticompetitive agreements and/or article 102 TFEU on abuses of dominance, “*may ultimately harm consumers by preventing them from benefiting from greater choice and lower prices*”.

Two of the Commission’s investigations were prompted by complaints from music streaming app provider Spotify⁴⁶⁵ and an e-/audiobook app distributor (Rakuten Kobo, according to press reports).

But the third investigation also covers all other third-party apps that compete with Apple in the EEA.

EU competition commissioner Margrethe Vestager said that

“Mobile applications have fundamentally changed the way we access content. Apple sets the rules for the distribution of apps to users of iPhones and iPads. It appears that Apple obtained a “gatekeeper” role when it comes to the distribution of apps and content to users of Apple’s popular devices. We need to ensure that Apple’s rules do not distort competition in markets where Apple is

⁴⁶⁰ <https://venturebeat.com/2019/04/16/apple-called-whimsical-feudal-lord-in-swedish-publishers-open-letter-supporting-spotify-complaint/>

⁴⁶¹ European Commission press release of 16 June 2020
https://ec.europa.eu/commission/presscorner/detail/en/IP_20_1073

⁴⁶² Case 40437 *Apple – App Store practices (music streaming)*
https://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=1_40437

⁴⁶³ Case 40652 *Apple – App Store practices (e-books/audiobooks)*
https://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=1_40652

⁴⁶⁴ Case 40716 *Apple – App Store practices (all other apps that compete with Apple)*
https://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=1_40716

⁴⁶⁵ Spotify press release announcing the complaint of 13 March 2019
<https://newsroom.spotify.com/2019-03-13/consumers-and-innovators-win-on-a-level-playing-field/>. Nordic publishing house Schibsted supported Spotify’s position in an open letter published of 11 April 2019 <https://www.dagensmedia.se/nyheter/medievarldens-arkiv/apple-hotar-den-fria-journalistiken/>

competing with other app developers, for example with its music streaming service Apple Music or with Apple Books. I have therefore decided to take a close look at Apple's App Store rules and their compliance with EU competition rules."

Table 34. The Commission’s initial competition concerns over App Store practices

Focus of all three investigations	Initial competition concern
<p>Apple mandates the use of its own proprietary in-app purchase (IAP) system for the distribution of paid digital content (such as music and e-/audiobooks) and/or paid apps on its devices</p>	<p>As Apple charges third-party app developers a 30% commission on all subscription fees through the IAP, <i>“Apple’s competitors have either decided”</i> to disable the in-app subscription possibility or pass this fee on to consumers.</p> <p>The IAP obligation also appears to give Apple full control over the relationship with the subscribers of its competitors.</p> <p>Therefore, it is <i>“dis-intermediating its competitors from important customer data while Apple may obtain valuable data about the activities and offers of its competitors”</i>.</p> <p>(Apple announced⁴⁶⁶ in November 2020 that in January 2021 it will reduce the commission to 15% for small businesses earning up to US\$1m (€0.86m) per year).</p>
<p>Apple’s rules prevent third-party app developers from informing users of alternative options to purchase paid content</p>	<p>Apps downloaded from the App Store can be used to consume content which is purchased from other sources that are usually cheaper, e.g. on the website of a third-party app developer.</p> <p>However, the app developers cannot inform users of such a possibility.</p>

In relation to the possible abuse of dominance under article 102 TFEU, the Commission’s 2018 decision on Google Android (see Section c for details) set out that the App Store is not in the same relevant product market as Google’s Play Store, nor does it restrain Google’s market power indirectly.

Although Google argued that this would imply that each app store of a mobile operating system developer holds a dominant position in its own market, the Commission denied this by saying that

“an assessment of dominance would need to take into account a number of factors specific to each app store that potentially differ from the ones regarding Android app stores, such as the penetration of the respective smart mobile OS”.

⁴⁶⁶ <https://www.apple.com/newsroom/2020/11/apple-announces-app-store-small-business-program/>

The Netherlands – mobile app store market study and pending investigation against Apple

Since April 2019, Apple is subject a parallel investigation in the Netherlands over an alleged abuse of dominance in the mobile app store market.⁴⁶⁷

The investigation follows a market study⁴⁶⁸ by the Dutch Authority for Consumers and Markets (ACM) during which it received “many indications” of potentially abusive conduct by app store operators.

Table 35. The ACM study identified three types of conduct that might warrant further investigation

Problematic conduct	Complaints from app providers
Favouring of own apps over apps from competing app providers (self-preferencing)	<ul style="list-style-type: none"> • The pre-installation of proprietary Apple and Google apps puts third-party apps at a disadvantage. • App providers face difficulties using all functionalities of an iPhone, for example, its virtual assistant Siri or its near field communication (NFC) chip used for payment solutions (see Section h for more details). • Apple’s terms and conditions preserve the right for the company to “imitate” third-party apps in its App Store (so-called “Sherlocking”).
Discrimination between comparable third-party apps	<p>App providers offering digital content or services (such as Netflix or Spotify) must pay a high commission (30% in the first year) on in-app purchases. However, providers of “physical” products (such as Uber or Amazon) do not have to pay such a commission.</p> <p>Some app providers complained about the high fee and questioned the legitimacy of the distinction between the two categories of apps.</p>
Lack of transparency	<ul style="list-style-type: none"> • Google and Apple’s terms and conditions for accessing their app stores are often vague and the reasons for the refusal to host an app can be unclear. • It is difficult to get in touch with Google and Apple to get an explanation on why an app is refused. • When using in-app purchases, there is “an inability to access customer data and consequently to offer the right level of services to customers”.

⁴⁶⁷ ACM press release of 11 April 2019 <https://www.acm.nl/en/publications/acm-launches-investigation-abuse-dominance-apple-its-app-store>. ACM is conducting the investigation in close cooperation with the European Commission.

⁴⁶⁸ ACM, *Market study into mobile app stores*, 11 April 2019 <https://www.acm.nl/sites/default/files/documents/2019-04/marktstudies-appstores.pdf>

The UK – Unlockd v Google

In 2018, Australian tech startup Unlockd sued Google in the UK for an alleged abuse of dominance in relation to its app store rules⁴⁶⁹, but was forced to withdraw the lawsuit after entering into administration and failing to secure litigation funding.

Unlockd provided mobile apps that rewarded users for viewing targeted ads, content or offers when they unlock their Android smartphones.

The rewards included mobile credit, data, premium entertainment content and loyalty points from Unlockd's business partners, which included telecoms companies and streaming services.

In early 2018, Google warned Unlockd that it would deny access to the Play Store and to the AdMob in-app ad inventory if Unlockd's apps continued infringing Google's policies which prohibit app providers from paying users to view ads.

Unlockd sued Google, claiming that its threat amounted to an abuse of dominance and forced the startup to put on hold its plan to list on the stock market:

"We believe that Google's conduct and the effect of its actions represents a further example by them of anti-competitive conduct toward innovative start-ups such as Unlockd, that might pose a future threat to their position in the market. Until wide reaching change is brought about to prevent companies like Google from abusing their dominant market positions, consumers and innovation will continue to suffer."

The USA – pending lawsuit Epic Games v Apple

Apple's in-app purchase (IAP) system is at the heart of a lawsuit brought in August 2020 by Epic Games against Apple, after the latter removed Epic's Fortnite game from the App Store because Epic introduced a discounted direct payment option for iOS and Android in violation of Apple and Google's marketplace policies.

In brief Epic alleges⁴⁷⁰ that

"Apple imposes unreasonable and unlawful restraints to completely monopolize [the mobile app distribution and IAP markets] and prevents software developers from reaching the over one billion users of its mobile devices... unless they go through a single store controlled by Apple, the App Store, where Apple exacts an oppressive 30% tax on the sale of every app. Apple also requires software developers who wish to sell digital in-app content to those consumers to use a single payment processing option offered by Apple, In-App Purchase, which likewise carries a 30% tax.

In contrast, software developers can make their products available to users of an Apple personal computer (e.g., Mac or MacBook) in an open market, through a variety of stores or even through direct downloads from a developer's website, with a variety of payment options and competitive processing fees that average 3%, a full ten times lower than the exorbitant 30% fees Apple applies to its mobile device in-app purchases".

⁴⁶⁹ The UK Competition Appeal Tribunal Case 1283/5/7/18 (T) *Unlockd Limited and Others v Google Ireland Ltd and Others* <https://www.catribunal.org.uk/cases/12835718-t-unlockd-limited-and-others>

⁴⁷⁰ Complaint for Injunctive Relief of 13 August 2020, *Epic Games, Inc. vs. Apple Inc.*, para. 3–4 <https://cdn2.unrealengine.com/apple-complaint-734589783.pdf>

The Department of Justice and a group of state attorneys general are reportedly also investigating Apple’s App Store practices.⁴⁷¹ The exact scope of these investigations is not known yet.

iii. Characteristics of the platform concerned

In 1976, Steve Jobs, Steve Wozniak and Ronald Wayne founded Apple Computer to market the Apple I. A total of around 200 units were sold. A year later, Apple launched the Apple II. The Apple II series was an open system, which means that all essential design details were publicly released. In 1980, Apple went public. At the same time, a project with new low-cost computers (later the Macintosh project) was driven internally which came to the market in 1984 and was widely advertised. Newer and upgraded versions of the Macintosh (later just called Mac) entered the market in the following years.

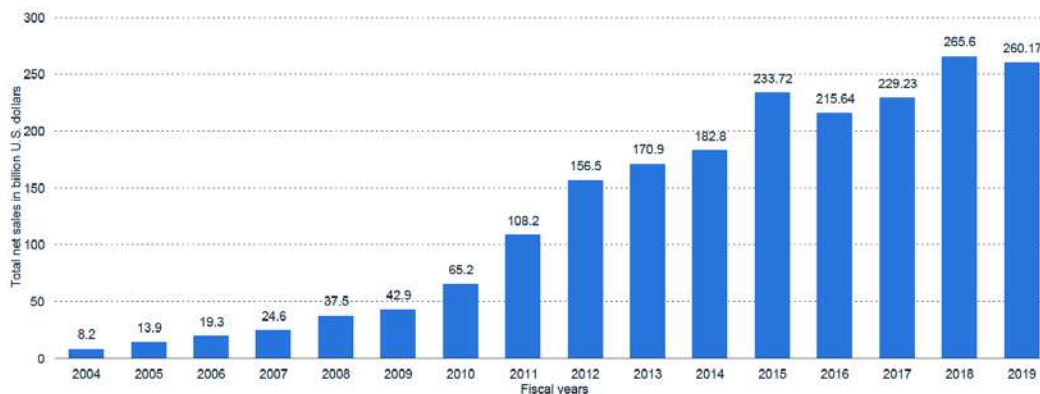
In the course of the 1990s, Apple continuously expanded its product portfolio and the Mac hardware became the hub of digital life for consumers. At the beginning of the 2000s, Apple opened its first retail store and thus could address consumers directly. While the development of innovative computers and notebooks was advanced, the first iPod was also introduced in late 2001 and became very successful around the world.

In 2007, the iPhone and Apple TV entered the market. While the iPhone soon became a success story, initially there was only limited demand for Apple TV. In contrast, the iPad, a tablet computer by Apple, was a great success, mimicking the iPhone’s triumph around the globe. In the following years, Apple expanded its portfolio by introducing not only innovative hardware products like the Apple Watch and HomePod, but by investing in innovative services (Apps) e.g. Apple Music and Apple Pay.

Apple

Apple was the number one technology brand worldwide in 2020, with a brand value of \$352.21 billion. Apple’s global revenue increased continuously in the period 2004-2015. However, starting in 2015, the revenue stagnated and even declined for two years. The largest share of the revenues originates in the Americas, followed by Asia and Europe.

Figure 114. Apple’s revenue worldwide 2004-2019 (in billion U.S. dollars)⁴⁷²



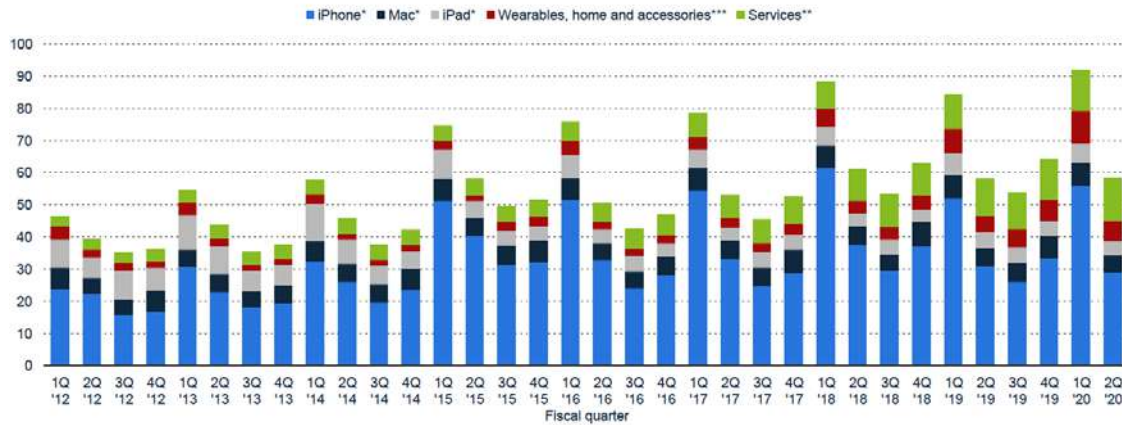
The recent volatility of the revenues becomes even more evident in the operating segments. Figure 115 depicts the quarterly revenues by operating segments highlighting considerable differences. While the segments “Services”, “Wearables, home and accessories”, “iPad” and

⁴⁷¹ The New York Times, online edition, 13 August 2020 <https://www.nytimes.com/2020/08/13/technology/apple-fortnite-ban.html?auth=login-email&login=email&searchResultPosition=3>

⁴⁷² Statista (2020): Apple Dossier, <https://www.statista.com/study/11000/apple-statista-dossier/>

“Mac” seem to be more or less constant, the high-revenue “iPhone” segment differs very strongly and has a significant impact on the overall revenues.

Figure 115. Apple's revenue by operating segments 2012-2020, by quarter⁴⁷³



As a consequence, Apple's net income has also been volatile, which is illustrated in Figure 116. Traditionally, the respective first quarter has been the strongest in recent years. Apple achieved a record net income in the first quarter of 2020, exceeding \$22 billion.

Figure 116. Net income of Apple by quarter 2005-2020⁴⁷⁴

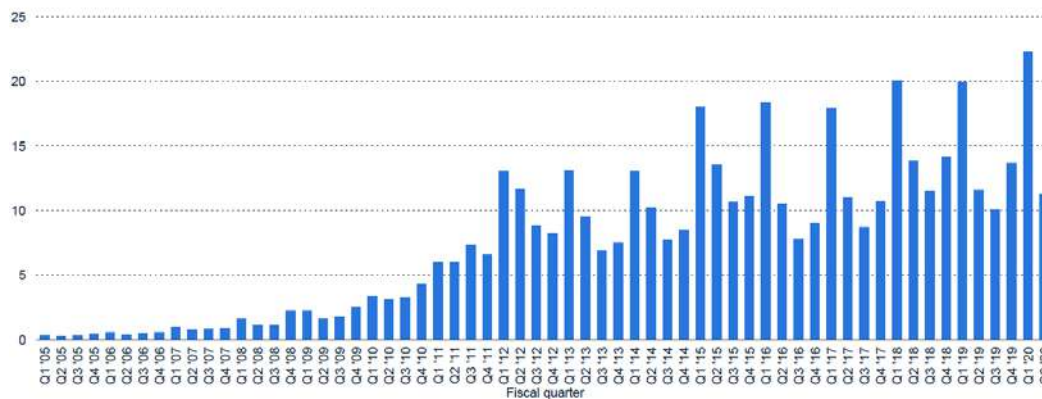
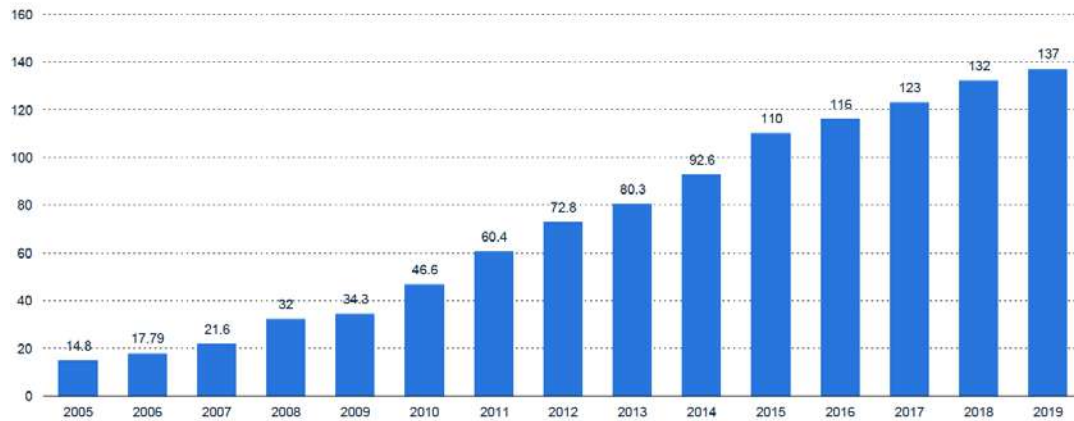


Table 36 shows the number of Apple employees across all segments worldwide. From 2005 to 2019, the number of employees was continually growing. However, the growth rates have declined recently after peaking at the beginning of the 2010s.

⁴⁷³ Statista (2020): Apple Dossier, <https://www.statista.com/study/11000/apple-statista-dossier/>

⁴⁷⁴ Statista (2020): Apple Dossier, <https://www.statista.com/study/11000/apple-statista-dossier/>

Table 36. Number of employees of Apple 2005-2019, worldwide⁴⁷⁵



App Economy

Apple was the pioneer of the app economy. The iPhone was the first smart phone on the market in 2007.⁴⁷⁶ Implementing the App Store in 2008 was the key development for the transition from (mainly) a hardware supplier to an integrated company. The platform facilitates and organises online interactions between users and suppliers via apps.⁴⁷⁷ Moreover, it paved the way for companies and developers to design programs for mobile devices. While initially only about 500 hand-picked programs were available in the App Stores, the number soon soared and now reaches several million apps.

The app economy has changed the daily and digital life of billions of people around the globe. It also attracts a rising app-developer workforce of several million people and creates new industries with innovative value-added chains in many different areas.

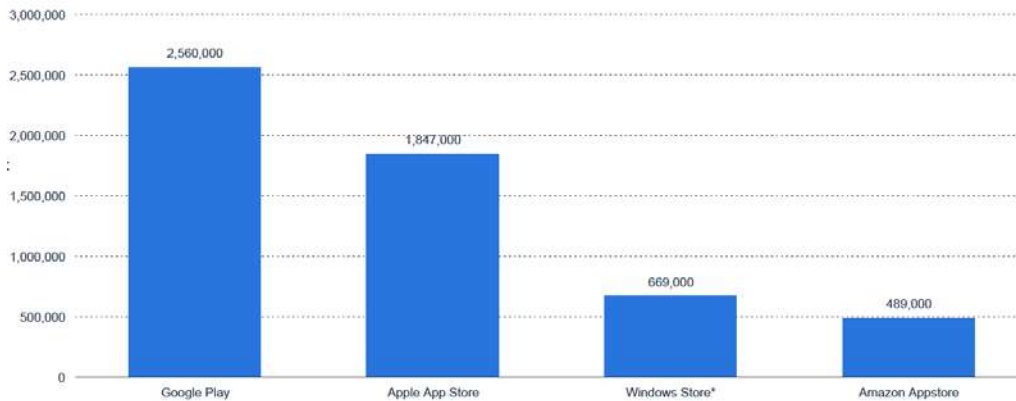
Figure 117 illustrates the number of apps in the globally leading app stores. Apple's App Store with more than 1.8 million available apps scores a second place after Google Play (over 2.5 million apps). The number of available apps in Windows Store and Amazon Appstore is considerably smaller. The figure underscores that Google Play and Apple App Store are the most dominant app platforms. The combined revenue of both platforms increased from about \$45 billion in 2016 to ca. \$73 billion in 2018, the underlying CAGR is 27.3%.

⁴⁷⁵ Statista (2020): Apple Dossier, <https://www.statista.com/study/11000/apple-statista-dossier/>

⁴⁷⁶ Google launched its Android platform in 2008.

⁴⁷⁷ ACM (2019): Market study into mobile app stores, <https://www.acm.nl/sites/default/files/documents/market-study-into-mobile-app-stores.pdf>

Figure 117. Number of apps available in leading app stores 2020⁴⁷⁸



In addition to the number of available apps, the number of app downloads further underscores the importance of Google’s Play Store and Apple’s App Store. The number of future downloads on both platforms is forecast to increase even further. The growth for Google Play is predicted to exceed Apple App Store.

Figure 118. Mobile app downloads worldwide from 2018 to 2022, by store (in billions)⁴⁷⁹

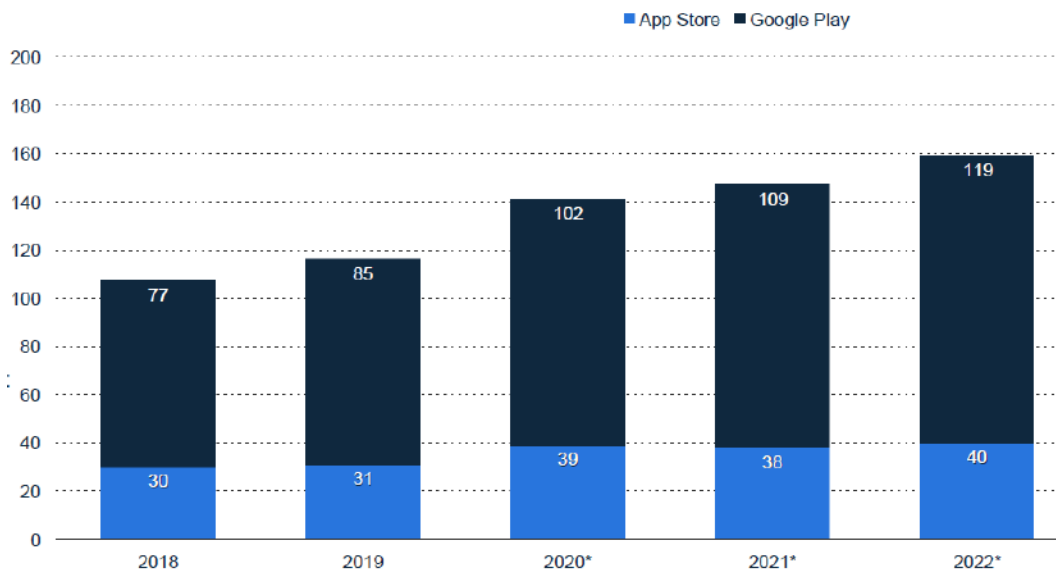
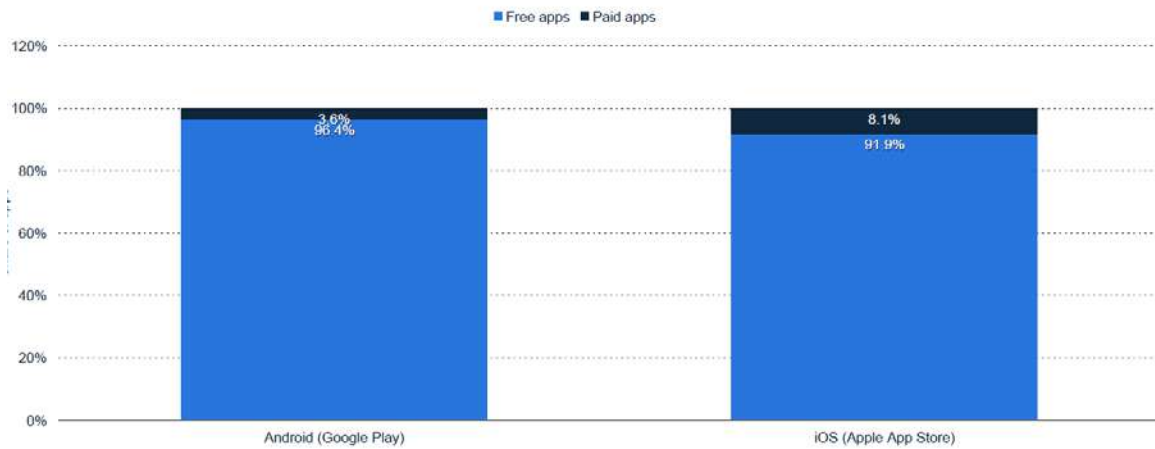


Figure 118 presents the distribution of free and paid apps on the two largest app platforms identified above. While free apps account for the vast majority of apps on both platforms, the share of paid apps in the Apple Apps Store (8.1%) is twice as high as in Google Play (3.6%).

⁴⁷⁸ Statista (2020): App Stores Dossier, <https://www.statista.com/study/13112/app-stores-statista-dossier/>

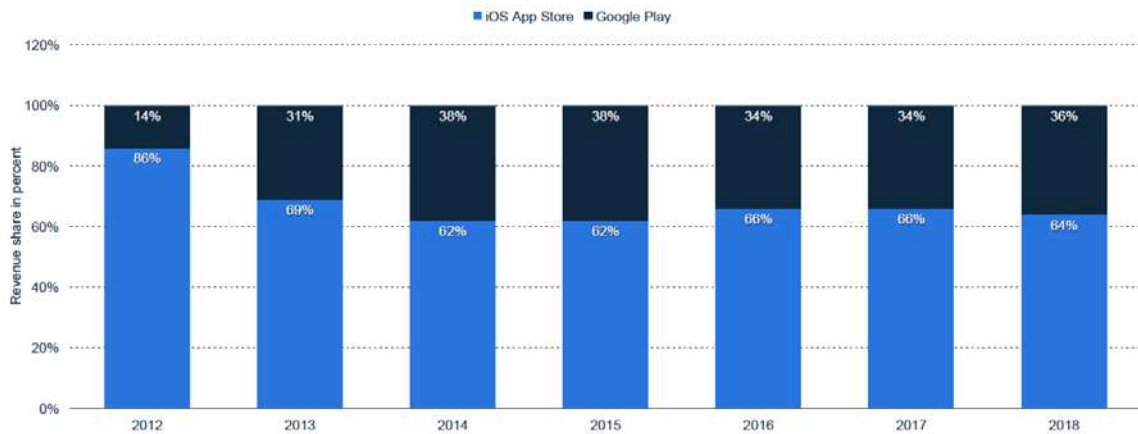
⁴⁷⁹ Statista (2020): App Stores Dossier, <https://www.statista.com/study/13112/app-stores-statista-dossier/>

Figure 119. Distribution of free and paid apps in the Apple App Store and Google Play as of June 2020⁴⁸⁰



As a consequence of the higher proportion of paid apps, the revenue share of the global app sales between the two companies is not even. Apple’s share amounts to 64% (almost twice the share of Google). Figure 120 shows that the distribution of the shares has been relatively stable since 2014.

Figure 120. Global mobile app sales revenue distribution between the Apple App Store and Google Play from 2012 to 2018⁴⁸¹



In Europe, iOS was initially the leading mobile operating system. However, in 2012 Android passed iOS and has expanded its lead ever since. As of 2019, the market share of iOS is 26.5% while Android’s share is 72.6%. The shares of Blackberry and Windows Phones are each below 1% and have been steadily decreasing in the last few years.⁴⁸²

The worldwide overall revenue from the App Store increased from \$38.7 billion in 2017 to \$54.2 billion in 2019. With a calculated CAGR of 18.3%, it becomes obvious that the importance of the App Store is still increasing (see Figure 121). Although Apple earns

⁴⁸⁰ Statista (2020): App Stores Dossier, <https://www.statista.com/study/13112/app-stores-statista-dossier/>

⁴⁸¹ Statista (2020): App Stores Dossier, <https://www.statista.com/study/13112/app-stores-statista-dossier/>

⁴⁸² See <https://www.statista.com/statistics/639928/market-share-mobile-operating-systems-eu/>

approximately 80% of its revenues from hardware sales, a key engine of growth is its service business, which has been expanding rapidly for a number of years (see Figure 122).

Figure 121. Worldwide gross app revenue of the Apple App Store from 2017 to 2019 (in billion U.S. dollars)⁴⁸³

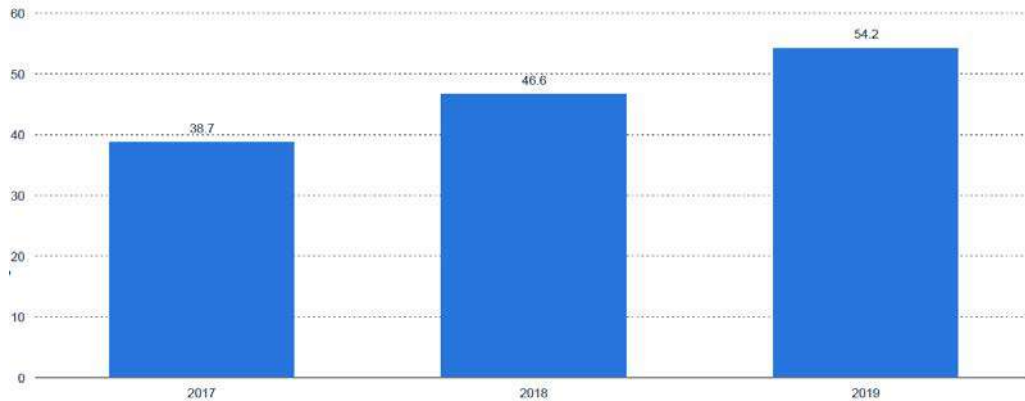


Figure 122. Share of Apple's revenue by product category from the 1st quarter of 2012 to the 4th quarter of 2020⁴⁸⁴

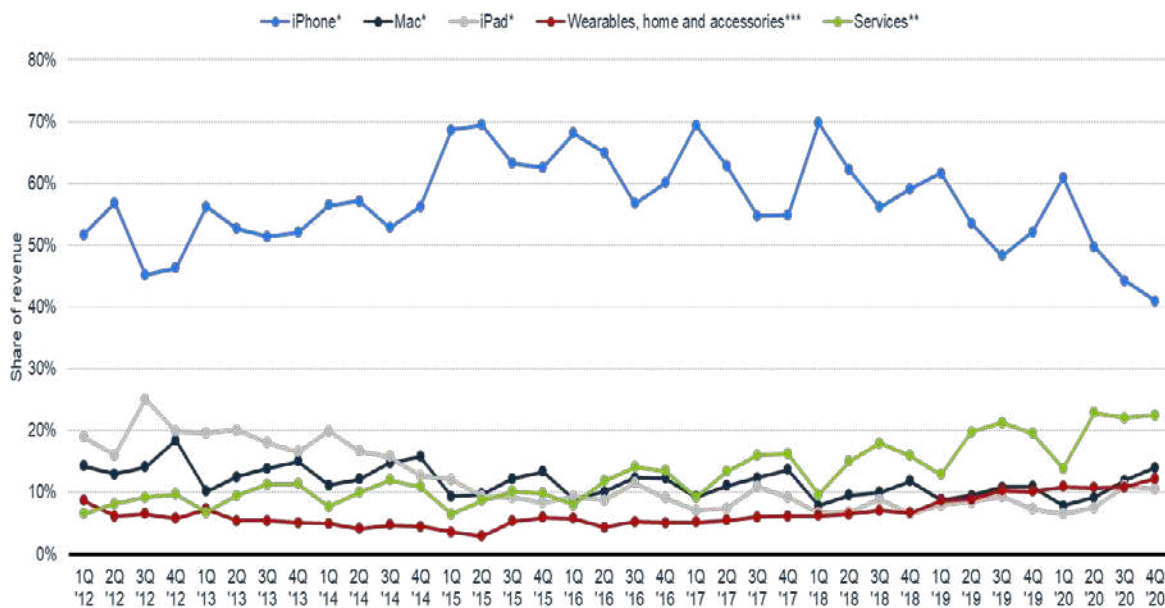
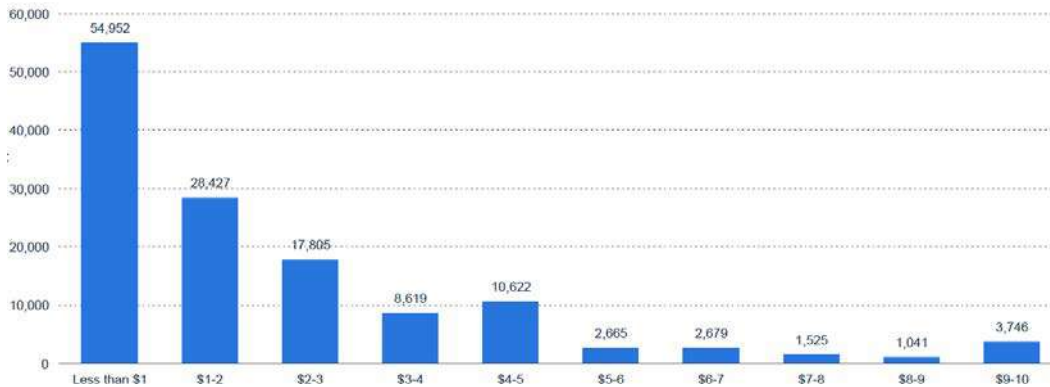


Figure 123 shows the distribution of paid app prices in the app store. The number of apps decreases with an increase in price. The majority of paid apps cost less than \$1. In contrast, the share of apps whose costs exceed \$5 is relatively low. The average app price in the App Store is \$0.87.

⁴⁸³ Statista (2020): App Stores Dossier, <https://www.statista.com/study/13112/app-stores-statista-dossier/>

⁴⁸⁴ Statista (2020): Consumer Electronics, <https://www.statista.com/statistics/382260/segments-share-revenue-of-apple/>.

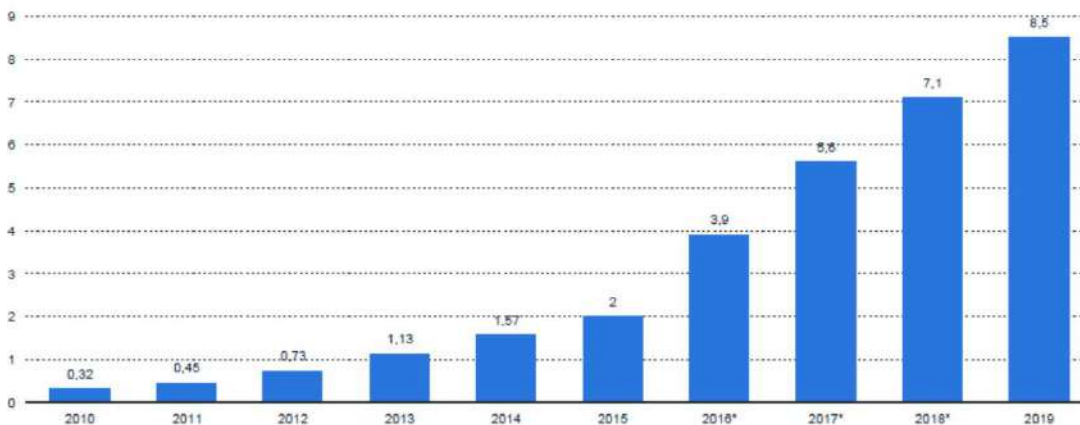
Figure 123. Paid app price distribution in the Apple App Store as of June 2020⁴⁸⁵



Music Streaming Industry

The global digital music market is driven by a quick and constant growth of music streaming services while the market for music downloads is stagnating and, in some countries, even shrinking. Figure 124 highlights the rapid rise of revenues from music streaming subscriptions worldwide. The underlying CAGR amounts to 44%.

Figure 124. Revenues from music streaming subscriptions worldwide from 2010 to 2019 (in billions of US dollars)⁴⁸⁶



The growth of revenues can be attributed to a rising number of subscribers that pay for music streaming services. Figure 125 shows that, in recent years, the number of subscribers has doubled about every two years.

⁴⁸⁵ Statista (2020): App Stores Dossier, <https://www.statista.com/study/13112/app-stores-statista-dossier/>

⁴⁸⁶ Statista (2020): Musikstreaming Dossier, <https://de.statista.com/statistik/daten/studie/671214/umfrage/marktanteile-der-musikstreaming-anbieter-weltweit/>

Figure 125. *Subscribers to (paid) music streaming services worldwide until 2019*⁴⁸⁷

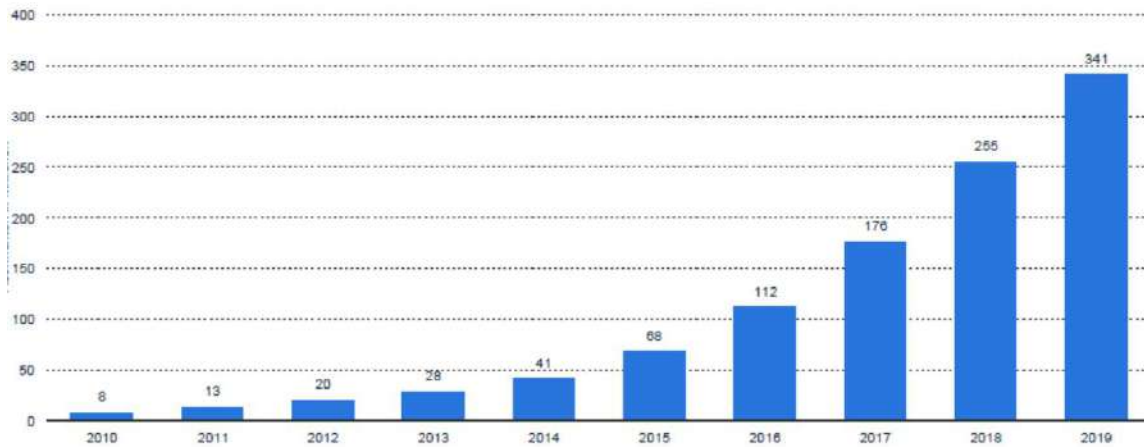
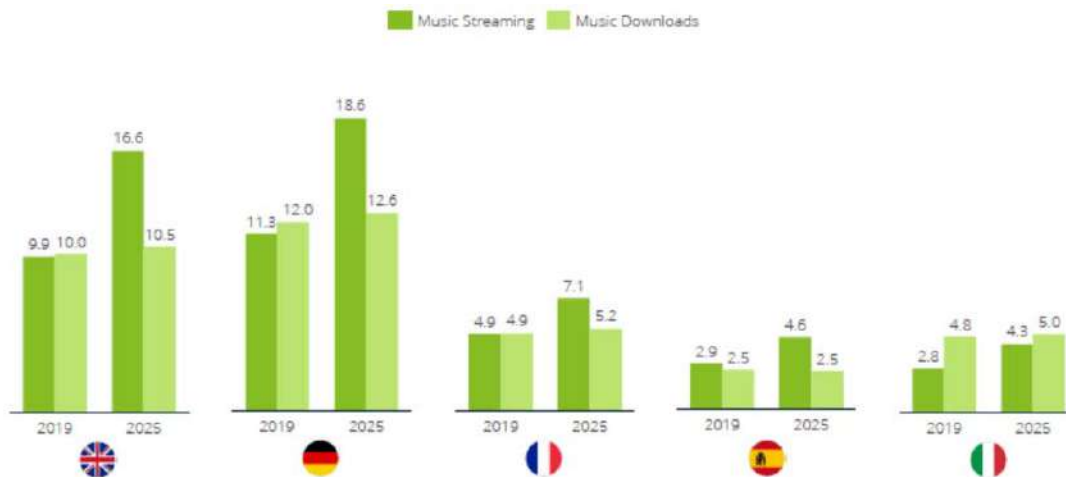


Figure 126 shows forecast numbers for music streaming and music downloads across selected countries in Europe. While the number of music download users is stagnating, the users of music streaming are forecast to sharply increase. In the five countries, the total revenues are also expected to continuously rise, with the CAGRs ranging from 3.3% in Italy to 5.5% in the UK.

Figure 126. *Number of users forecast in millions*⁴⁸⁸

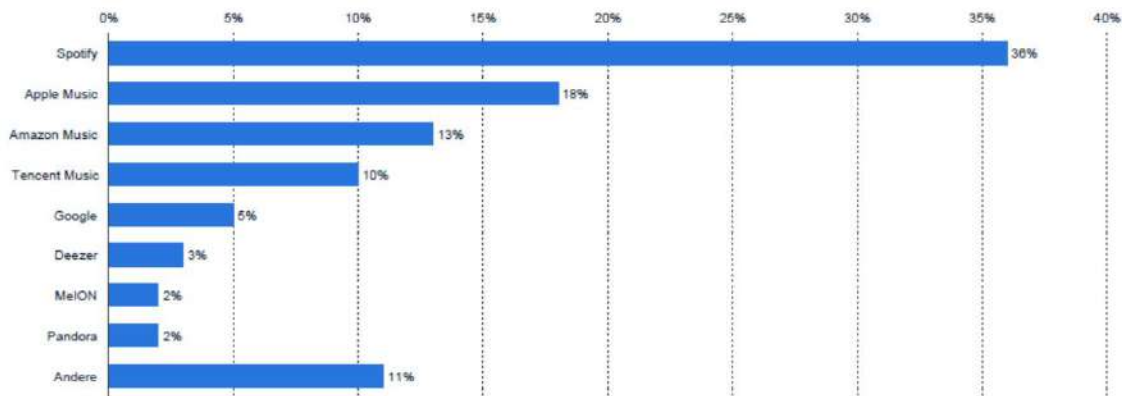


The market for music streaming varies from country to country. The global market shares of the most relevant music streaming providers are shown in Figure 127. Spotify has the largest market share with 36%, followed by Apple Music (18%), Amazon Music (13%) and the Chinese company Tencent Music (10%). Only a fraction is a paying subscriber with 108 million paying subscribers for Spotify, 60 million for Apple Music and 32 million for Amazon music.

⁴⁸⁷ Statista (2020): Musikstreaming Dossier, <https://de.statista.com/statistik/daten/studie/671214/umfrage/marktanteile-der-musikstreaming-anbieter-weltweit/>

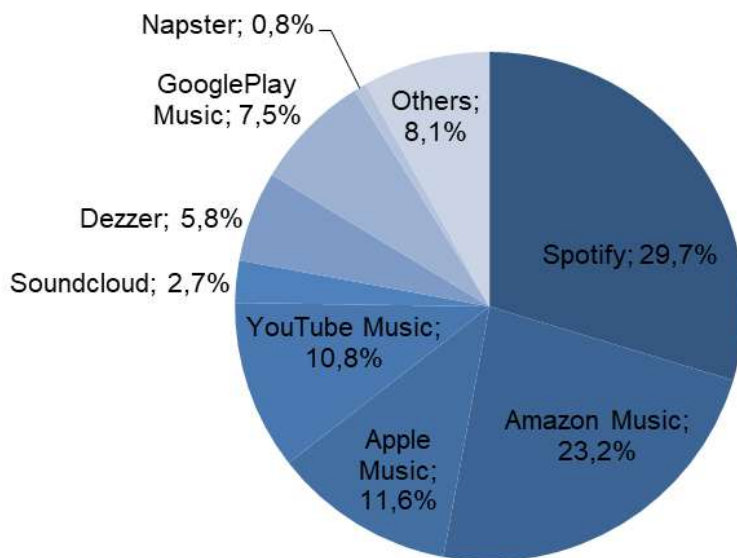
⁴⁸⁸ Statista (2020): Digital Media Report 2020 – Digital Music Dossier, <https://www.statista.com/study/39314/digital-music-2018/>

Figure 127. Market shares of music streaming providers by subscribers worldwide in 2019⁴⁸⁹



Market share data of music streaming providers across all EU countries is not available. Figure 128 summarizes the market shares of music streaming providers in France, Germany, Italy, Spain and the UK. Similar to the global market share, Spotify is the largest provider, however the market share in the EU is smaller (30%) compared to its global market share (36%). Amazon’s role in the five European countries (23%) is visibly larger (compared to 13% globally), whereas Apple’s market share in the EU countries (12%) is trailing its global one (18%). Except for YouTube Music with 11%, the market share of all other providers is below 10%.

Figure 128. Aggregated market shares of music streaming providers in 5 European countries.⁴⁹⁰



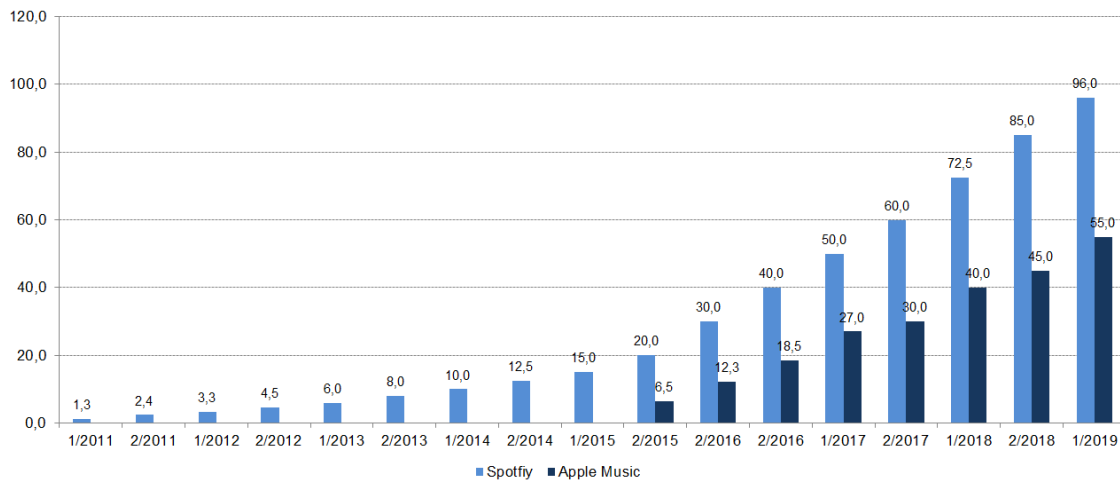
The relationship between Spotify and Apple Music is particularly interesting for this case study. Figure 129 shows the trend in worldwide subscribers every six months over time (with Apple Music Data only available since its launch in 2015). The subscribers of both services

⁴⁸⁹ Statista (2020): Musikstreaming Dossier, <https://de.statista.com/statistik/daten/studie/671214/umfrage/marktanteile-der-musikstreaming-anbieter-weltweit/>

⁴⁹⁰ Data calculated from Statista (2020): Digital Media Report 2020 – Digital Music Dossier, <https://www.statista.com/study/39314/digital-music-2018/>

are continuously increasing over time. From 2015 to 2019, Apple Music had a CAGR of 71%, while Spotify's CAGR in the 8-year period is quite similar with 72%. However, it is worth noting that Spotify's CAGR in the first four years (without Apple Music in the market) is 85%, while the CAGR in the later four years sank to 59% when Apple launched its own streaming platform. Thus, it can be deduced that the new market player negatively affected the growth potential of Spotify.

Figure 129. Number of subscribers worldwide (2011 – 2019)



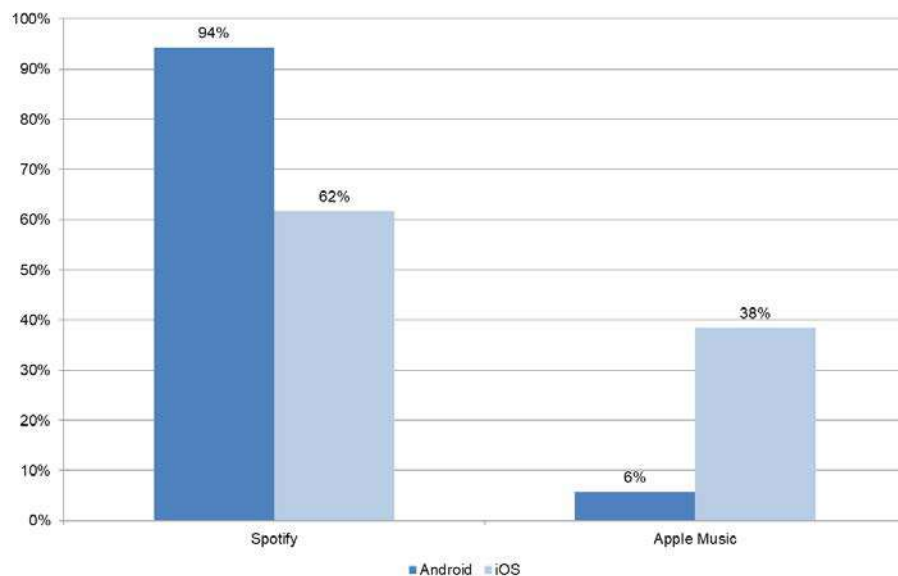
It is not clearly discernible to what extent Spotify's financial results have been impacted by Apple Music. Figure 130 highlights Spotify's revenues and annual results worldwide from 2008 to 2019. While the revenues (in light blue) and also the number of paying subscribers have grown steadily, Spotify's annual results (in dark blue) have been negative in the last 10 years.

Figure 130. Spotify's worldwide revenues and annual results until 2019



Figure 131 depicts which music streaming services are used by Android and iOS users. Users for both services are not included in the graph, as only a fraction consumes both services. It is clearly visible that the entrance of Apple Music affected the music streaming consumption habits. Android users overwhelmingly use Spotify (94%) with Apple Music's market share very low (6%). However, while more iOS users also use Spotify (62%), the market share of Apple Music (38%) is significantly higher.

Figure 131. Music streaming services by operating system⁴⁹¹



iv. Evidence of the problem and associated harms

App stores can steer the selection of apps presented to consumers. Thus, app providers are dependent on the app stores to reach end-users on their smartphone. With the app stores steadily growing, indirect network effects also multiply: as the number of apps in the app stores rises, more consumers will likely use the larger platforms which also enhance the attractiveness of the platform for app developers. Likewise, it also increases the value of products and services that are offered by the providers of the app stores. Against this backdrop, the success of the app stores can be traced back to the integrated ecosystem of device, operating system, app store and apps. Due to the “closed nature” of the ecosystems, the switching costs for consumers are very high.⁴⁹²

Apple has a dual role as provider of the software marketplace for its devices and provider of applications for their own services (e.g. Apple Music), which are distributed via the App Store as well. Third-party developers argue that the restrictive guidelines imposed by Apple favour its own services and impede the contact of third-party developers to their own end customers.

As a provider of the market place, Apple has a gatekeeping position to set the terms and conditions for its App Store, to determine what functionalities are available to app providers and to decide how apps are ranked and featured in the App Store. By controlling the mobile operating system, Apple can also influence the availability and functioning of apps. The Apple App Store is (in contrast to Google Play) the only available app store on devices using the iOS operating system, so sideloading – the installation of apps without going through the App Store approval process – is not possible. Therefore, app providers are not able to distribute their iOS apps without complying with Apple’s terms and conditions.

Due to the gatekeeper role and the lack of alternatives, the App Store represents a bottleneck within the iOS ecosystem and can be leveraged by Apple as a tool to hamper inter-platform competition. As app providers are dependent on Apple’s (and the App Store’s) rules and behaviour, Apple has high bargaining power in contrast to app providers. It might

⁴⁹¹ Source: Online Survey WIK 2018, N: 3184; Country: Germany, November 2018.

⁴⁹² They might also increase the switching costs for some app developers. However, the most successful apps are available in many app store ecosystems.

also be able to use the App Store to extend its strong market position to other value chains or industries.⁴⁹³

The terms and conditions for accessing the Apple App Store can be difficult for app providers to meet. ACM (2019) concludes that the terms and conditions for access are not clear to some extent and open for interpretation. The lack of transparency also applies to the reasons for refusal which are considered as vague. Instead of a specific reason, a lack of compliance with guidelines might be stated as a reason. As direct communication with Apple is reported as very difficult, especially smaller app providers may face additional challenges due to delays and cost-intensive technical adaptations.⁴⁹⁴

In addition, as Apple is also a provider of services on its own platform, app providers directly compete with proprietary Apple apps. As some Apple services are already preinstalled on Apple devices, app providers are disadvantaged since many end customers tend to use the already available apps and might not see the need to install another app with similar functions. Moreover, on a technical level, Apple's own apps might be able to interact easier with other Apple functions (e.g. Siri and HomePod) than third-party apps and have less interoperability problems (technical self-preferencing).⁴⁹⁵

Apple is also able to control how apps are displayed on the platform. This has the potential to limit the scope to which end customers can find certain apps on the platform ("discoverability"), e.g. by search algorithms and rankings of search results. This can place smaller apps in a challenging position when they are nearly "invisible" to end customers.

The gatekeeper function and the bargaining power also enable Apple to set the pricing scheme terms for the platform. The commission fees (30% for first year and 15% for second year subscriptions) for in-app purchases (IAP) are regarded as high and discriminatory by other app providers. Apps with similar functions as proprietary Apple apps might be disadvantaged as Apple does not charge its own products.⁴⁹⁶

When third-party app providers pass the fee onto the subscribers, end customers are negatively affected as well: if they subscribed on the app's own website, they might have to pay a smaller price. In addition, it can be argued that fee is discriminatory because only digital services that are delivered inside an app are charged while apps like Uber and Airbnb ("delivery" outside the app) are not charged.⁴⁹⁷

It can also be questioned if Apple treats all app providers the same in the App Store. In the case of Amazon Prime, a reduction of the fee by Apple was offered to attract the popular service on the platform. If only larger and popular apps enjoy financial benefits, this represents a major financial challenge for smaller app providers and consolidates established market structures.

Also, third-party app providers do not have the opportunity to advertise offers (e.g. free trials) and upgrades outside the App Store as well as indicate payment methods outside the app (e.g. via buttons or external links). End customers that just use iOS might be completely

⁴⁹³ See ACM (2019): Market study into mobile app stores, <https://www.acm.nl/sites/default/files/documents/market-study-into-mobile-app-stores.pdf> and Bostoën / Mândrescu (2020): Assessing abuse of dominance in the platform economy: a case study of app stores, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3629118.

⁴⁹⁴ ACM (2019): Market study into mobile app stores, <https://www.acm.nl/sites/default/files/documents/market-study-into-mobile-app-stores.pdf>

⁴⁹⁵ Bostoën / Mândrescu (2020): Assessing abuse of dominance in the platform economy: a case study of app stores, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3629118.

⁴⁹⁶ ACM (2019): Market study into mobile app stores, <https://www.acm.nl/sites/default/files/documents/market-study-into-mobile-app-stores.pdf>

⁴⁹⁷ Bostoën / Mândrescu (2020): Assessing abuse of dominance in the platform economy: a case study of app stores, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3629118.

unaware of this. Consequently, some apps like Netflix, Spotify and Amazon's Kindle have disabled IAP on iOS.⁴⁹⁸

When end customers subscribe via the app, Apple's gatekeeper position can also limit the information that third-party app providers receive about their subscribers. This is heavily criticised by some providers as they lack sufficient information to address their customers. While app providers are not able to adapt their offers to their target groups, Apple might be able to obtain customer profiles that it can use to offer its own tailored services.⁴⁹⁹

v. Solutions and impacts

In the preceding analysis, different aspects of Apple's behaviour were identified that can affect the business models of third-party app providers negatively. If an ongoing investigation by the European Commission finds any harmful effects, remedies on different levels can be implemented to prevent the exercise of bargaining power via the App Store. Thus, a level playing field between proprietary Apple apps and third-party services could be achieved.

Apple's gatekeeper position and ability to stretch its bargaining power to other areas could be restricted if Apple's vertical integration was addressed and the company was not allowed to offer own proprietary apps in its App Store. However, this would represent a strong interference into the company's business model.

A less invasive approach could encompass a functional separation of Apple's business units (devices, platform, services etc.) to prevent cross-subsidies. In that way, proprietary Apple apps would be treated equally to third-party apps regarding fees, display and discoverability on the platform, general terms and conditions, etc. Also, technical interoperability should be promoted so that third-party apps can be featured on all iOS devices and can use other Apple functions like Siri.

The rules of the App Store could also be adapted: The margin of discretion should be reduced and the justification for not accepting apps or upgrades should be very transparent. Moreover, all apps should be able to promote offers and upgrades via the App Store so all end customers can receive the same quality of service.

Furthermore, third-party app providers should have access to the data from their IAPs. The availability forms the basis to engage in a customer relationship and to refine the product portfolio according to the end customers' preferences.

Another approach could be a detailed examination of the commission fees. Apple's present scheme (30%/15%) is very general. As it can be questioned whether fees are cost-reflective for Apple, a fee reduction would be a welcome relief especially for smaller app providers. As long as the costs for the maintenance of the platform and a reasonable profit are covered, a flexible pricing model subject to renegotiations and adjustments could be implemented. App providers could deploy the additional financial resources by upgrading the apps and fostering innovations.

On November 18th 2020, Apple announced that they will reduce the App Store's commission fees for third-party developers whose revenues do not exceed \$1 million in 2020.⁵⁰⁰ Developers who are eligible for this program will now have to pay a fee of 15% of their

⁴⁹⁸ See ACM (2019): Market study into mobile app stores, <https://www.acm.nl/sites/default/files/documents/market-study-into-mobile-app-stores.pdf> and Bostoan / Mândrescu (2020): Assessing abuse of dominance in the platform economy: a case study of app stores, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3629118

⁴⁹⁹ See ACM (2019): Market study into mobile app stores, <https://www.acm.nl/sites/default/files/documents/market-study-into-mobile-app-stores.pdf> and Bostoan / Mândrescu (2020): Assessing abuse of dominance in the platform economy: a case study of app stores, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3629118.

⁵⁰⁰ Bloomberg (2020): <https://www.bloomberg.com/press-releases/2020-11-18/apple-announces-app-store-small-business-program>

revenues compared to the formerly 30%. While the application for this program is open immediately, the launch is scheduled for January 1st 2021. The analytics company of Sensor Tower estimated that the fraction of small businesses that are affected by this price cut amounts to 98 percent of all third-party developers active on the App Store. However, these developers accounted only for 5% of the App Store's total revenue for Apple.⁵⁰¹ Hence, Apple's profits will not be severely diminished by this program since the large developing companies (e.g. Spotify, Epic Games), which are competing against Apple's own services, are not affected by the scheme. Against this background, the announced program may indeed be able to improve the situation for small and innovative services but will not alleviate the present competitive concerns. It is doubtful anyhow, that this fee reduction would have been implemented independently of the ongoing antitrust investigation.

f. Case 5: Prohibition of self-preferencing – Amazon Marketplace

i. What is the problem/s associated with this case?

A digital platform can treat its own products and services better than those offered by other entities on the same platform. This is called self-preferencing. In the Cremer report⁵⁰², self-preferencing was defined as “giving preferential treatment to one's own products or services when they are in competition with products and services provided by other entities using the platform”.

The Cremer report further acknowledges that this behavior is not per se abusive but is subject to an effects test⁵⁰³. However, the report goes on to state that: “...self-preferencing by a vertically integrated dominant digital platform can be abusive not only under the preconditions set out by the “essential facility” doctrine, but also wherever it is likely to result in a leveraging of market power and is not justified by a pro-competitive rationale.”. Further, the report noted that “...in a market with particularly high barriers to entry and where the platform serves as an intermediation infrastructure of particular relevance, we propose that, to the extent that the platform performs a regulatory function [setting up the rules through which users interact] it should bear the burden of proving that self-preferencing has no long-run exclusionary effects on product markets.”.

One specific kind of self-preferencing is the use of data of competitors using the platform for its own business strategy. In this context the question arises whether and, if so, under what conditions a vertically integrated digital (Transaction) Platform acts abusively if it uses data on companies offering goods or services on the platform not only for the purposes of marketplace operation itself - i.e. for the optimisation of the brokerage service - but also makes it available to the group's own subsidiary or corporate department which competes with other companies on the platform (without providing these data to competitors). The group's own subsidiary or corporate department can then use the knowledge generated from the data to gain an advantage in competition on the platform and to develop targeted displacement strategies.⁵⁰⁴

⁵⁰¹ The Verge (2020): <https://www.theverge.com/2020/11/18/21572302/apple-app-store-small-business-program-commission-cut-15-percent-reduction>

⁵⁰² See Crémer, Jacques; de Montjoye, Yves-Alexandre; Schweitzer, Heike (2019): Competition policy for the digital Era", A report for the European Commission, available at <https://ec.europa.eu/competition/publications/reports/kd0419345enn.pdf> last download 07.08.2020.

⁵⁰³ The effects test is a method used to assess the discriminatory impact of a behavior.

⁵⁰⁴ See Crémer, Jacques; de Montjoye, Yves-Alexandre; Schweitzer, Heike (2019): Competition policy for the digital Era", A report for the European Commission, available at

This case study considers Amazon's Marketplace for e-commerce and addresses the question whether there is a strong indication of self-preferencing of Amazon's own retail operations compared to third-party sellers, including data access as well as fulfilment/logistics. Such a kind of self-preferencing may be abusive and harm competition.

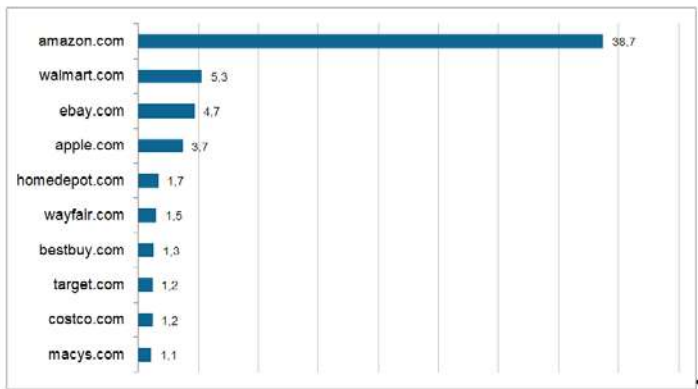
In summary:

- Amazon is the largest e-commerce retailer in America, but also in Germany, the largest market in Europe.
- Due to its size, it is a crucial sales channel for many manufacturers and distributors. There are significant numbers of third-party sellers on Amazon; around 240,000 in Germany and around 50% of the paid units in general are from third parties.
- Amazon is not only a 'matchmaking' platform but also performs logistic services like storage keeping and fulfilment (inventory keeping, packaging, shipping and returns).
- For its matchmaking, Amazon asks a fee of 8-15% depending on the product category and sales volume. For fulfilment, an additional fee applies for each transaction.
- Since 2004, Amazon has also been selling its own products under different names. In 2009, it launched its 'Basics' product line and now covers all Amazon's categories. By 2017, Amazon Basics was the best-selling private label brand on Amazon.
- There is a suspicion that this success is supported by Amazon's use of data collected via its market platform on third-party transactions. Amazon can analyse market opportunities without financial risk and knows the manufacturers behind products, which it can use to negotiate directly lower production for its own Basics line.
- It is shown that the introduction of Amazon Basics products negatively impacts the sales of comparable third-party products on Amazon.
- Amazon can also preference its own private labels listing its own products better in searches on the Amazon website, by offering a direct link on the website itself (letting them appear in "Top rated from our brands"), promoting reviews (which increases the probability of customers buying) and letting Alexa steer shoppers to Amazon Basics products.
- In the short term, there might be consumer benefits, however in the long run, there might be negative consequences due to reduced competition.

The strong market position of Amazon

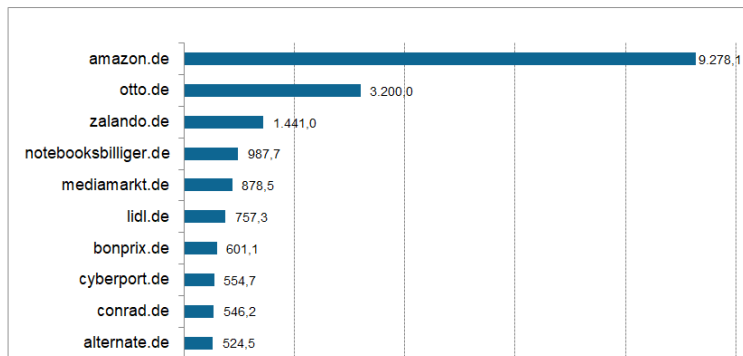
Case Study 1 (presented above in Section b) demonstrated that Amazon is one of the main tech giants worldwide. In July 2020, Amazon had the highest market capitalisation in the world. The core business of Amazon is online trading or e-commerce. In 2019, at least 70 per cent of sales were generated in the e-commerce segment. Recently, the effect of Covid-19 has led to a further significant increase in online trade. Amazon is the main beneficiary of this in America and Europe. Amazon's importance in online trading is reflected in the following figures for the United States and Europe (here with data of Germany, the most important market within the European Union).

Figure 132. Market share of leading retail e-commerce companies in the United States as of February 2020



Source: emarketer.com, February 2020

Figure 133. Revenue of the 10 most successful online shops in Germany in 2018 (in million euros)



Source: ecommercedb.com; published by Statista, September 2019

As a result, Amazon's role as the most important online market platform in these regions has continued to grow. The presence of products on this online platform opens up extensive sales opportunities for a launched product. Many potential customers can be addressed via this single platform. Customers appreciate the clearly structured form of Amazon's online site as well as the simple and reliable use of the service offered to sell products (e.g. one-click shopping, the comparison alternatives offered for a product, customer rebates, the clear payment system, fast and reliable delivery, easy return, especially in the event of complaints, etc.). Guided by the principle "customers first", Amazon offers a highly reliable and convenient service for customers. Amazon offers a comprehensive portfolio of products in nearly all product segments. Amazon.com provided a total of 119,928,851 products as of April 2019.⁵⁰⁵ These are the main reasons for the overwhelming success of this digital platform. Therefore, this platform is of considerable importance as a sales channel for most product manufacturers and distributors.

Amazon's online sales activity on the Amazon platform can be grouped into three categories:

1. Online retail sales by Amazon as a pure reseller.
2. Online sales of third parties with or without fulfillment by Amazon.
3. Online retail sales of Amazon's own brands, like Amazon Basics, etc. by Amazon.

⁵⁰⁵ See <https://www.scrapehero.com/number-of-products-on-amazon-april-2019/>, last download 07.08.2020.

Online retail sales by Amazon as a pure reseller

In this case, Amazon acts as a company or individual (merchant) that purchases goods or services to sell them on its own internet platform. To do so, Amazon established a website and operates the fulfillment. This comprises intermediate storage of the products in a so called logistics centre, the logistics of distribution to the end users (sometimes by itself, quite often by using external parcel delivery services like Hermes, UPS, DPD and DHL) and customer support (returns and payment are widely managed by Amazon). Amazon established a highly efficient and comfortable user online sales and distribution system.

Online sales of third parties with or without fulfillment by Amazon

Amazon Marketplace is an e-commerce platform owned and operated by Amazon that enables third-party sellers to sell new or used products on a fixed-price online marketplace alongside Amazon's regular offerings. Using Amazon Marketplace, third-party sellers gain access to Amazon's customer base, and Amazon expands the offerings on its site without having to invest in additional inventory. In turn, Amazon demands a commission fee from third-party sellers for successful matchings that lead to a business transaction.⁵⁰⁶

Items purchased on Amazon from third-party sellers are either fulfilled by the merchant (FBM)⁵⁰⁷ or fulfilled by Amazon (FBA)⁵⁰⁸. FBM goods are kept in the third-party seller's inventory, and shipping and customer service are handled by the third-party merchant. FBA goods are stored in Amazon's fulfillment centres, and shipping and customer service are handled by Amazon.⁵⁰⁹

In contrast to other e-commerce platforms that offer a mere matchmaking service between consumers and sellers, Amazon also offers additional logistics support in the form of a fulfilment service. In fact, Amazon considers itself as a logistics company and builds on this expertise with the “fulfilment by Amazon (FBA)” service. If a seller participates in this programme, Amazon manages the inventory, packaging, shipping and returns. Sellers still have to buy the products and make sure the goods are delivered to the correct Amazon warehouse with specific labelling to be processed by Amazon. However, the fact that services are “fulfilled” by Amazon, is clearly presented to consumers and may be a feature encouraging purchases from a given supplier. On the other hand, marketplace sellers, which do not take up this service must store and ship products on their own and handle returns from customers. These tasks can be especially challenging for new and smaller sellers. Amazon charges all merchants on its platform a commission fee for successful transactions. These “Amazon referral fees” depend on product category and sales volume and usually range around 8% to 15%⁵¹⁰. The fees are taken from a merchant's account balance after the sale is made. In case of fulfilment by Amazon, additional fees apply for each transaction and storing the goods in Amazon's warehouses. For example, a merchant participating in the FBA program that sells a large item (100cm / 2.7kg) for \$30 would pay \$4.50 in referral fees and an additional \$11.64 in FBA fees.⁵¹¹

⁵⁰⁶ See https://en.wikipedia.org/wiki/Amazon_Marketplace download at 06.08.2020 and <https://www.visualcapitalist.com/how-tech-giants-make-billions/> last download 08.08.2020.

⁵⁰⁷ The Amazon FBM (Fulfilled by Merchant) Guide is available at <https://ioscout.io/blog/amazon-fbm> download at 06.08.2020.

⁵⁰⁸ See <https://ioscout.io/blog/a-guide-to-amazon-fba> download at 06.08.2020..

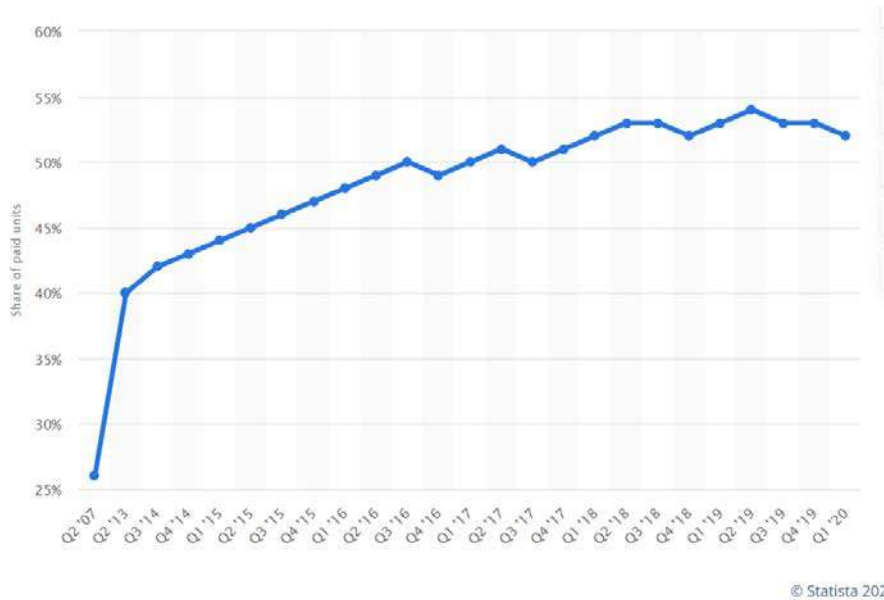
⁵⁰⁹ See https://en.wikipedia.org/wiki/Amazon_Marketplace download at 06.08.2020.

⁵¹⁰ See <https://www.junglescout.com/blog/amazon-fba-fees/> last download 08.08.2020.

⁵¹¹ There are guidelines available in the Web how to sell products on Amazon see for example <https://dollarsanity.com/beginners-guide-how-to-sell-on-amazon/> download at 06.08.2020.

The percentage of paid units sold by third parties has significantly increased since 2007. With some variation, it ranges between 50 and 55 per cent over the last years with a downward trend more recently.

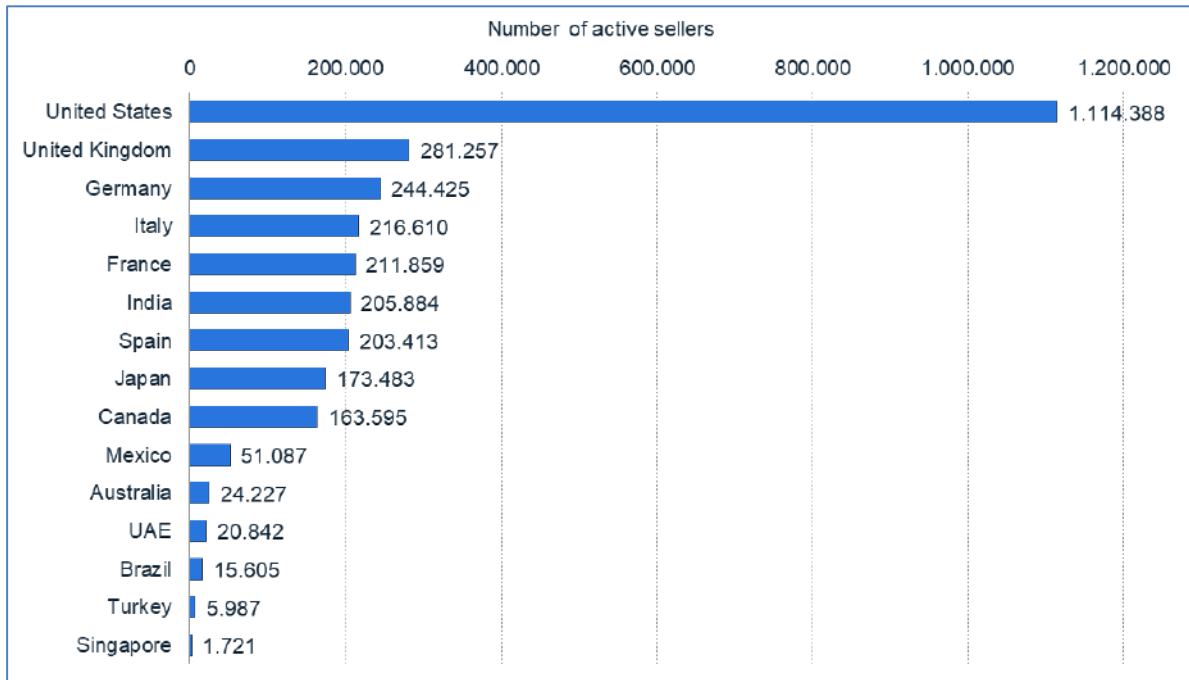
Figure 134. Percentage of paid units sold by third-party sellers on Amazon platform as of 1st quarter 2020



Source: Statista

The number of active third-party sellers is significant: roughly 1.1 million in the US, 244,000 Germany and 216,000 in Italy, for example.

Figure 135. Number of active Amazon marketplace sellers in 2019, by country



Source: Statista

Amazon’s sales of own brands, like Amazon Basics, etc.

Since April 2004, Amazon.com has also been selling its own products under various retail brands such as Strathwood for garden furniture, Pinzon for the home and Pike Street as a low-cost brand. In 2009, Amazon launched its in-house “Basics” product line. This is Amazon’s main own product line. As a consequence of these various activities, Amazon is in a dual role as platform provider and retailer of first party goods sold via its own platform.

Amazon could have the incentive to use its role as platform provider to boost its revenues from in-house brands. Due to its fulfilment service, Amazon collects further data about merchants’ activities, their sales figures, return rates and logistics operations. Leveraging this information exclusively without sharing it with third-party sellers can be considered as a form of self-preferencing. This information can - as will be seen in what follows below – be used to successfully launch own brands to the detriment of competitors.

The issue that Amazon competes against its own sellers by its own brands was also addressed in the recent antitrust hearing in Washington held by a House Judiciary Committee panel Committee on Justice of the House of Representatives.⁵¹² In the past, Amazon created more than 100 own brands which compete directly against Amazon’s third-party sellers. Against this background, the hearing in the US also raised the question of whether sales data and other data of third-party sellers are used by Amazon to design and launch own brands to undercut third-party offers with their own products or to squeeze small and medium-sized enterprises out of the market. This in addition is promoted and accelerated by prominent launch of own products on the Amazon sales platform. From an anti-trust perspective, such behavior would raise the question whether Amazon should be allowed to compete against its own business customers. This is also the question which is addressed in this case study. The main issue is self-preferencing.

ii. Legal context

In this study, self-preferencing refers to where digital platforms confer advantages to their own upstream or downstream operations, thereby extending their market position into associated markets.⁵¹³

Self-preferencing can be implemented through preferential provision of data and information, preferential display, and quality of service (e.g. in relation to ease of use, customer engagement, delivery). The breadth of a platform’s product portfolio may incentivise self-preferencing.⁵¹⁴

In telecommunications, this practice is commonly addressed in the EU through sector-specific “*non-discrimination*” obligations which cover both internal and external discrimination, or through incentivising the establishment of “*wholesale-only*” firms.⁵¹⁵

In its 2017 landmark decision on *Google Search (Shopping)*⁵¹⁶, the European Commission established that self-preferencing by an integrated dominant digital platform can be abusive

⁵¹² See <https://www.vox.com/recode/2019/6/4/18651694/amazon-ftc-antitrust-investigation-prime> last

and <https://www.theverge.com/2020/7/29/21335706/antitrust-hearing-highlights-facebook-google-amazon-apple-congress-testimony> last download 08.08.2020.

⁵¹³ See, for example, J. Furman, D. Coyle, A. Fletcher, D. McAuley and Ph. Marsden, *Unlocking Digital Competition*, March 2019, p. 58

⁵¹⁴ Alexiadis, P. and de Streel, A., *Designing an EU Intervention Standard for Digital Platforms* (February 26, 2020). Robert Schuman Centre for Advanced Studies Research Paper No. 2020/14 <https://ssrn.com/abstract=3544694>

⁵¹⁵ Lighter touch regulation can be applied under Directive (EU) 2018/1972 establishing the European Electronic Communications Code for operators pursuing a wholesale only model. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2018.321.01.0036.01.ENG

⁵¹⁶ European Commission decision of 27 June 2017 in Case 39.740 *Google Search (Shopping)* https://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=1_39740

under Article 102 TFEU not only under the strict preconditions set out by the essential facility/(constructive) refusal to supply doctrine, but also when it is likely to result in a leveraging of market power that has an exclusionary effect.

This new theory of harm pursued by the Commission seems to be similar to the other, well-established, leveraging theories of harm of tying and bundling (see Section a above), and margin squeeze. The EU General Court’s judgment on Google’s appeal is pending.⁵¹⁷

Insofar as self-preferencing involves the use of contractual mechanisms, it could also be subject to Article 101 TFEU.⁵¹⁸

There is an expanding body of competition cases relating to self-preferencing, including cases and allegations concerning self-preferencing by platforms involved in search, and e-commerce as well as app stores. An overview of these cases is provided in Annex 4.

These include several investigations into Amazon, which have revolved around Amazon’s dual role as an online marketplace platform and as a competing retailer on that platform.

Austria and Germany – settled investigation into Amazon’s terms and conditions

In July 2019, the Austrian⁵¹⁹ and German⁵²⁰ national competition authorities (NCAs) closed their parallel antitrust investigations into Amazon’s terms and conditions for third-party sellers, following Amazon’s decision to amend them worldwide.

Table 37. Theories of harm considered by the Austrian and German competition authorities, although no abuse was characterised because the case was closed subject to binding commitments given by Amazon

Competition authority	Possible theories of harm
Austria	Abuse of dominance (or sellers' economic dependence – § 5 KartG) in the form of: <ul style="list-style-type: none"> • abrupt termination of seller accounts • imposition of an obligation for sellers to disclose their purchase prices • adding incorrect delivery details to seller accounts • unjustified degrading of sellers’ product rankings • imposition of unfavourable jurisdiction clauses that make it complicated for sellers to take legal action.
Germany	Abuse of dominance in the form of:

⁵¹⁷ Pending EU General Court judgment in Case T-612/17 *Google and Alphabet* <http://curia.europa.eu/juris/liste.jsf?lgrec=fr&td=%3BALL&language=en&num=T-612/17&jur=T>

⁵¹⁸ See, for example, Ibáñez Colomo, P., *Self-Preferencing: Yet Another Epithet in Need of Limiting Principles* (July 17, 2020), p. 6 https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3654083

⁵¹⁹ Austrian competition authority report of 17 July 2019 https://www.bwb.gv.at/news/detail/news/bwb_informiert_amazon_aendert_geschaeftsbedingungen/; press release of 14 February 2019 https://www.bwb.gv.at/en/news/detail/news/austrian_federal_competition_authority_initiates_investigation_proceedings_against_amazon/

⁵²⁰ German competition authority report of 17 July 2019 in Case B2-88/18 <https://www.bundeskartellamt.de/SharedDocs/Entscheidung/EN/Fallberichte/Missbrauchsaufsicht/2019/B2-88-18.html?nn=3599398>

Competition authority Possible theories of harm

- abnormal business terms and discrimination (because the terms infringe German contract law which protects companies' right to self-determination)
- unjustified advantages, because there seemed to be no objective justification to the advantages required by Amazon
- unfair business terms that favour its own downstream business, Amazon Retail, to the detriment of third-party sellers.

The NCA's report is unclear as to whether an abuse of economic dependence (Section 20 GWB) could have been characterised.

The two NCAs decided to close their investigations without taking further steps because Amazon changed its terms and conditions, as follows:

- The terms and conditions will be easier to find. In particular, all Amazon programme guidelines will be accessible via a hyperlink, and changes will be announced with a 15-day notice.
- The liability and exemption rules will be more balanced. For instance, the liability of Amazon and third-party sellers will be similar for intentional wrong, gross negligence and breaches of major contractual obligations.
- Amazon will give a 30-day notice for ordinary termination of a seller account. Extraordinary termination with immediate effect will only be possible in specific cases, such as a material contract breach and fraud.
- Under certain conditions, litigations can be brought outside Luxembourg. On the other hand, Amazon's requirement to apply Luxembourg's law is justified by the need to ensure standard legal conditions for all sellers.
- Amazon's free, worldwide, non-exclusive rights to use sellers' product materials (e.g. image, product description) will be limited to the duration of the sellers' rights for such materials. In addition, Amazon will stop using a parity clause that obliges sellers to provide the highest quality materials that is available in other sales channels.
- A returned product will be given back to the seller. If the seller objects within 30 days, Amazon can only charge the seller for the reimbursement if it proves that the product was supplied by the seller.
- Amazon will no longer reserve its Vine rating programme to the suppliers of Amazon Retail. Vine, which currently is the only source of product reviews on Amazon, will be open to all sellers that own or represent a brand name. Third-party sellers will also have access to Amazon's upcoming new review programme.
- Amazon will not require a prior consent before sellers make public statements, or be informed of their contacts with public authorities.

European Commission – pending investigations into Amazon's online marketplace practices

In November 2020, the European Commission sent a statement of objections (not public) to Amazon, setting out its preliminary view that the company "*systematically*" uses non-public business data from third-party retailers who sell on its online marketplace in order to benefit its own retail business, which directly competes with those retailers (pending case *Amazon Marketplace*).⁵²¹

⁵²¹ European Commission pending Case 40462 *Amazon Marketplace* https://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=1_40462. Press release https://ec.europa.eu/commission/presscorner/detail/en/ip_20_2077

In parallel, the Commission opened a second investigation against the company into criteria on its online marketplace that might "*artificially favour*" Amazon's own retail offers and the retail offers of third-party sellers that use Amazon's logistics and delivery services (pending case *Amazon Buy Box*).⁵²²

Both investigations concern Amazon's dual role as an e-commerce platform which operates an online marketplace, where third-party sellers can sell products to customers; and sells products on the marketplace as a retailer, in competition with the third-party sellers.

The Commission's investigation of Amazon's business practices started as a follow-up to the 2015-2017 e-commerce sector inquiry⁵²³.

The Commission launched a preliminary fact-finding in 2018 and a formal investigation in July 2019.

At first, Amazon's both practices were part of the same investigation, but the Commission later opened a separate case on the *Buy Box*.

Pending case *Amazon Marketplace*

According to the Commission's preliminary view, Amazon's data practices amount to an abuse of its dominant position in the French and German markets for the provision of online marketplace services.

These are Amazon's two biggest markets in the EU. EU competition commissioner Margrethe Vestager noted that "*more than 70% of consumers in France and more than 80% of consumers in Germany that made online purchases bought something from Amazon in the last 12 months*".

She added that Amazon also has a strong position in other national markets in Europe, but not necessarily amounting to dominance.

According to the Commission, in its role as a marketplace provider, Amazon has access to "*very large quantities of non-public seller data*", including on:

- the number of ordered and shipped units of products;
- the seller's revenues on the marketplace;
- the number of visits to the seller's offers;
- shipping;
- the seller's past performance; and
- consumer claims against the seller.

The Commission found that Amazon's retail business "*systematically*" uses this data.

Ms Vestager explained that "*very granular, real-time business data relating to third party sellers' listings and transactions on the Amazon platform systematically feed into the algorithms of Amazon's retail business*".

The Commission found that these algorithms are used "*to calibrate Amazon's retail offers and strategic business decisions*". For example, they are used to decide on:

- what new products to launch;
- the price of each individual offer;
- the management of inventories; and
- the choice of the best supplier for a product.

⁵²² European Commission pending Case 40703 *Amazon - Buy Box*
https://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=1_40703. Press release
https://ec.europa.eu/commission/presscorner/detail/en/ip_20_2077

⁵²³ https://ec.europa.eu/competition/antitrust/sector_inquiries_e_commerce.html

The Commission considers that Amazon's use of seller data enables the company to "avoid the normal risks of retail competition", such as the risks normally associated with investing in a new product or choosing a specific price level.

This allegedly distorts competition in the various online retail markets and marginalises third-party sellers.

Ms Vestager explained that "although Amazon only lists a minor share of all products on the platform, it captures the lion's share of the transactions in most product categories. In many of the most popular product categories, Amazon lists less than 10% of the products available on its platform but makes 50% or more of all revenues in the category".

Pending case Amazon Buy Box

The Commission is investigating whether Amazon gives preferential treatment on its marketplace to:

- its own retail business; and
- the sellers that use Amazon's logistics and delivery services (fulfilment by Amazon).

In particular, the Commission is looking at Amazon's criteria for:

- selecting the winner of the Buy Box; and
- enabling sellers to offer products under the Prime label.

Ms Vestager said: "Our concern is that Amazon may artificially "push" retailers to use its own related services. This may potentially lock deeper into Amazon's own ecosystem an increasing number of sellers".

The Commission also wants to make sure that sellers that do not use Amazon's logistics and delivery services have a chance to compete on the merits on Amazon.

The Italian competition authority launched a similar investigation in 2019 (see below).

Buy Box

The Buy Box is displayed prominently on the right-hand side of the product description page on Amazon.

It shows the offer of a single seller (Amazon or a third-party seller) for the chosen product, while other sellers' offers are displayed less prominently below.

Amazon's algorithms assign the "winner" of the Buy Box (i.e. the seller that is featured in it) based on several criteria, such as price, product availability, delivery cost/time and seller performance.

Ms Vestager explained that "winning the Buy Box is crucial for the marketplace sellers, as it seems that more than 80% of all transactions on Amazon are channelled through it".

Figure 136. The seller in the Buy Box is displayed more prominently on Amazon's product description page than other sellers (source: Cullen International)

The screenshot shows an Amazon product page for a 'Helikon-Tex Competition Utility Pouch Shadow Grey'. The product is a dark grey, rectangular utility pouch with a top handle and a front pocket. The 'Buy Box' is prominently displayed on the right side of the product description, showing a price of €23.90 and 'FREE Delivery'. A blue callout box highlights the 'Buy Box' with the text: 'Winner of the Buy Box: Seller receiving preferential treatment for using Amazon's logistics and delivery services?'. Below the main product image, there are 'Sponsored' recommendations for other products, including a 'LEOODO' rope. On the right side, there are 'Other Sellers on Amazon' listed below the Buy Box.

Amazon Prime

Consumers who subscribe to Amazon's Prime programme (against an annual fee) benefit from free and faster shipping, among other things.

The Commission's investigation focuses on "the possibility for marketplace sellers to effectively reach Prime users" by selling their products under the Prime label.

The Commission noted that reaching Prime users is important because their number is continuously growing, and they tend to generate more sales than non-Prime users.

Italy – pending investigation into alleged discrimination in favour of third-party merchants that use Amazon's logistics services

In April 2019, the Italian NCA opened an investigation⁵²⁴ into whether Amazon abuses its dominance under article 102 TFEU by discriminating on its e-commerce platform in favour of third-party merchants that use Amazon's logistics services (Fulfilment by Amazon)⁵²⁵.

⁵²⁴ Pending Case A528 *Possibile abuso di posizione dominante in marketplace e-commerce e servizi di logistica*
https://www.agcm.it/dettaglio?db=41256297003874BD&uid=E9A915E2B4B89DC1C12583E50053D452&view=vw0301&title=A528-FBA%20AMAZON&fs=%20%2082_CE/102_CE-Abuso%20di%20posizione%20dominante

⁵²⁵ In Canada, "the ability of third-party sellers to succeed on Amazon's marketplace without using its Fulfilment By Amazon service or advertising on Amazon.ca" is in the scope of the pending investigation by the Competition Bureau. Competition Bureau press release of 14 August 2020 <https://www.canada.ca/en/competition-bureau/news/2020/08/competition-bureau-seeks-input-from-market-participants-to-inform-an-ongoing-investigation-of-amazon.html>. The Federal Trade Commission in the USA is reportedly also investigating the issue. Los Angeles Times, online edition

The European Commission launched a similar investigation in November 2020 (see above). According to the NCA, other third party merchants appear to be penalised in terms of worse search rankings and access to consumers, even though their offers and performance are comparable to those merchants whose orders are managed by Amazon.

The NCA noted that the potential impact of this conduct is significant, including because: 70% of consumers only check the offers that are displayed on the first page of the search results; and the products that are displayed on the first page count for 81% of sales of a given search.

Table 38. The Italian NCA identified certain advantages that Amazon grants to third-party merchants that use its logistics services

Alleged advantage	Details
Better seller performance metrics (which contribute to higher search ranking)	<p>If the shipment is managed by Amazon logistics, Amazon’s performance indicators ignore certain detrimental statistics (with bold font below), therefore improving the performance level:</p> <ul style="list-style-type: none"> • Order defect rate, calculated as % of orders with negative feedback, guarantee claims and/or credit card chargeback claims. • Product policy violations, which are related to issues such as intellectual property rights and product authenticity or safety. • Late dispatch rate, calculated as % of delayed shipments and % of cancelled orders before the shipment.
Better visibility and search ranking	<p>If the shipment is managed by Amazon logistics, the following factors can improve the visibility of the product:</p> <ul style="list-style-type: none"> • The product is displayed with the text <i>"Delivery by Amazon"</i>. • The product is eligible for the Amazon Prime programme, and consumers can filter their search results to cover only Prime products. Consumers that subscribe to Prime (against an annual fee) benefit among other things from free and faster shipping. • It is easier to obtain positive feedback, which improves the merchant’s performance metrics (see the row above) and consequently also the search ranking.
Easier and faster purchase experience	<p>More than 80% of purchases on Amazon are made through the so-called Buy Box (on the right-hand side of the product description page – see above).</p> <p>Because of the criteria that are used for assigning the Buy Box, a third-party merchant whose order is managed by Amazon can win it even if its price is higher than the prices of other third-party merchants.</p>

The NCA alleged that by “*self-preferencing*” its own logistics services Amazon leverages its dominance in the (national) e-commerce platform market to foreclose competition in the closely related (national) market for e-commerce logistics.

If a merchant selling on Amazon chose to outsource its e-commerce logistics to a competitor, it would lose a series of advantages on Amazon's e-commerce platform that are "not necessarily related to the efficiency and quality of the service".

The NCA added that Amazon's conduct could potentially also foreclose competing e-commerce platforms because:

the prices of Amazon's logistics services for managing orders made on competing platforms (Multi-Channel Fulfillment) seem to be higher compared with the prices that apply to Amazon's own marketplace; and
of duplication of certain costs that a merchant will incur if it chooses to use a different e-commerce logistics service provider to manage orders made on competing platforms, while continuing to rely on Amazon logistics on Amazon's e-commerce platform.

Italy – alleged anticompetitive exclusion of unauthorised Apple retailers from Amazon.it

In July 2020, the Italian NCA opened an investigation⁵²⁶ under article 101 TFEU into an alleged anticompetitive agreement between Apple and Amazon to exclude from Amazon's online marketplace Apple device retailers that do not adhere to Apple's official device distribution programmes⁵²⁷.

In 2018, Amazon ousted from its Italian online marketplace all such unauthorised retailers of Apple and Beats products, even though they operate legitimately by acquiring Apple products from authorised wholesalers.

Beats is Apple's subsidiary producing audio electronics products, including headphones and speakers. These products continue to be available on Amazon.it from authorised Apple retailers, including Amazon itself.

The NCA stated that the alleged restriction of competition cannot simply be traced to Apple's (vertical) distribution agreements.

Rather, it seems to stem from a reciprocal agreement where:

- Apple grants Amazon the status of an official Apple retailer; and
- Amazon grants exclusivity on its online marketplace to authorised retailers, which also include Amazon.

In this context, according to the NCA, Apple and Amazon compete at both retail and device production level, because:

- Apple is not a mere device manufacturer but also a retailer through its own online and physical shops; and
- in addition to providing an online marketplace to third-party merchants, Amazon sells Apple and Beats devices, and produces competing devices such as Kindle Fire Tablets and audiovisual devices Echo and FireTV.

⁵²⁶ Italian competition authority pending Case I842 *Apple and Amazon*
<https://www.agcm.it/pubblicazioni/bollettino-settimanale/2020/30/30-20>

⁵²⁷ In the USA, the Federal Trade Commission is reportedly also investigating the issue. The Verge, 2 August 2019 <https://www.theverge.com/2019/8/2/20751482/ftc-amazon-apple-iphone-reseller-agreement-antitrust>

Table 39. According to the Italian NCA, the agreement may have an appreciable anticompetitive effect

Theory of harm	Details
Limitation or control of output ⁵²⁸ (Article 101(1)(b) TFEU)	<p>The exclusion of unauthorised Apple retailers from Amazon’s online marketplace could reduce the offer of Apple and Beats devices.</p> <p>The excluded retailers are usually small and medium-sized Italian companies that would not be able to reach a large part of consumers who purchase consumer electronics online.</p> <p>By limiting the number of Apple device retailers on Amazon’s online marketplace, the agreement could also limit price competition.</p>
Restriction of parallel trade between EU member states	<p>As Amazon’s online marketplace in Italy also allows access to consumers in other countries, the foreclosure of unauthorised retailers could obstruct the integration of European markets.</p> <p>Based on case law on article 101 TFEU, prohibiting online sales is generally not allowed, except in certain circumstances in selective distribution networks.</p>

iii. Characteristics of the platform concerned

Amazon: Main general characteristics of the platform

Case Study 1 provides an explicit description of Amazon’s business, the history, the development and main financial data of Amazon.

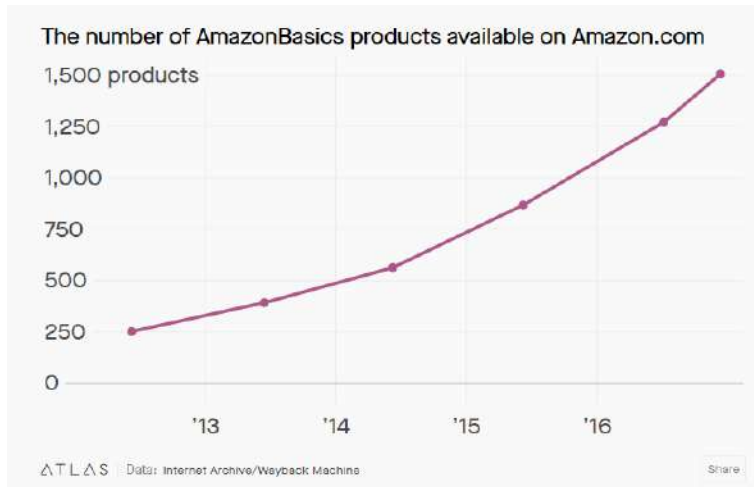
Amazon: Selling its own brands

The most prominent product series is Amazon Basics. Amazon Basics is a house brand of Amazon that was launched in 2009. Initially, it comprised generic versions of electronics accessories, like cables and plugs which were sold at a low price.⁵²⁹

⁵²⁸ Output limitation would be a by object restriction of competition, which is assumed to have an anticompetitive effect without the NCA having to prove it. It could, in theory, be justified with efficiencies (under Article 101(3) TFEU).

⁵²⁹ See <https://qz.com/1155843/amazonbasics-is-moving-well-beyond-the-basics/> last download 08.08.2020.

Figure 137. The number of Amazon Basics products increased significantly over time.



Source: ATALAS

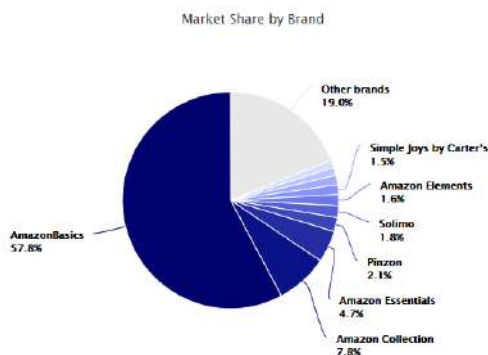
As of December 2017, Amazon Basics was the best-selling private label brand on Amazon.com.⁵³⁰

Amazon launches private label brands under more than 400 different brand names. The most prominent ones according to MarketplacePulse are set out in the figure below.⁵³¹

Figure 138. Top Selling Amazon private label brands

Amazon-owned Top 10 most successful private label brands are:

- AmazonBasics - household goods, electronics
- Amazon Collection - jewelry
- Amazon Essentials - men's and women's clothing
- Pinzon - bedding and towels
- Solimo - household goods
- Amazon Elements - vitamins and supplements
- Simple Joys by Carter's - children's clothing
- Goodthreads - men's clothing
- Daily Ritual - women's clothing
- Lark & Ro - women's clothing



Source: MarketplacePulse

With a market share of almost 58%, the Amazon Basics label is by far the most successful in-house product marketed by Amazon.

Amazon Basics has products in Health & Household, Electronics, Home & Kitchen, Sports & Outdoors, Arts, Crafts & Sewing, Automotive, Cell Phones & Accessories, Baby, Clothing, Shoes & Jewelry, Industrial & Scientific, Musical Instruments, Office Products, Patio, Lawn & Garden, Pet Supplies, Tools & Home Improvement, and Video Games departments. The brand covers practically all of Amazon's categories.⁵³²

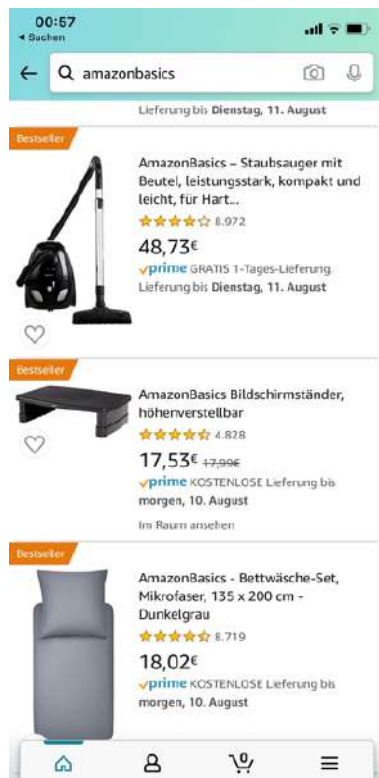
⁵³⁰ See https://en.wikipedia.org/wiki/List_of_Amazon_brands last download 08.08.2020.

⁵³¹ The following figures can be found on MarketplacePulse <https://www.marketplacepulse.com/amazon-private-label-brands#amazon-vs-brands> last download 10.08.2020.

⁵³² See <https://www.marketplacepulse.com/amazon-private-label-brands#amazon-vs-brands> last download 10.08.2020.

Many Amazon Basics products are the bestsellers at Amazon in the respective product category. The following figure illustrates a selective example. However, the reader can easily verify more such bestsellers of Amazon Basics by researching on the Amazon website using the search command “Amazon Basics”.

Figure 139. Amazon Basics products are best-selling items in several product categories



Source: Amazon⁵³³

The most prominent Amazon Basics articles are standard batteries. “One out of every \$10 of Amazon Basics sales goes to batteries, and the AA battery makes up about 4 per cent of Amazon Basics’ sales, which is apparently enough for Amazon Basics to overtake established battery brands like Energizer and Panasonic.”

- Amazon Basics makes the three best-selling products, as the portfolio includes the most popular sizes (AA, AA, D Cell, C Cell and 9 Volt).
- In terms of cables in electronics, Amazon Basics has both the top position and half of the 100 best-selling products are provided by Amazon Basics.
- In 2017, Amazon began marketing a \$49.99 Amazon Basics 20-inch bag and a \$89.99 Amazon Basics 28-inch bag. Equivalent 28-inch Away or Raden brand luggage costs \$295, which is a 230% surcharge. The company launched it because "baggage" is the 145th most searched item and "hand luggage" is the 439th most searched item. Customers also search Amazon for "away luggage", but since away luggage is not available on the platform, customers often buy one of the Amazon

⁵³³ See <https://www.amazon.com/AmazonBasics/b?node=10112675011>
last download 08.08.2020.

Basics items. It seems that these basic luggage items offer a more affordable alternative to high visibility direct-to-consumer brands.⁵³⁴

Analysis: Amazon's self-preferencing by using data

Self-preferencing 1

The following analysis provides evidence that:

Amazon has a clear advantage over its competitors in the evaluation of product, sales and customer data, which are being generated due to the processing of related transactions on the Amazon platform. This data can be launched to order or produce own brands and sell them on the platform. Since this data are not provided to third-party sellers, this can be considered as self-preferencing. This has a negative effect on the sales of third parties. In fact, this seems to be the case.

Amazon is enabled to evaluate product, sales and customer data, which are being generated due to the processing of related transactions on the Amazon platform.

Such data could encompass:

- Manufacturer / origin of products sold by marketplace third-party merchants.
- Most successful product categories / items offered by third-party merchants.
- Most lucrative customer segments for specific product categories / items offered by third-party merchants.
- Price trends and (average) margins of product categories / items offered by third-party merchants.
- Percentage of returned shipments per product category / item offered by third-party merchants.

Furthermore, due to its fulfilment service, Amazon is enabled to collect further data about merchants' activities, their sales figures, return rates and logistics operations. (One stakeholder interviewed for this study said that small businesses would not be able to reach the market in the same way as with Amazon Fulfilment Services. Those businesses rely on fulfilment services to improve their market position.) Fulfilment coordination is considered as being difficult for small firms. Large businesses quite often negotiate a package deal (e.g. marketing, fulfilment etc.).

Leveraging this information exclusively without sharing it with third-party sellers can be considered as a form of self-preferencing for the following reasons. First, by analysing marketplace data from third-party merchants, Amazon is able to identify which items that are currently not offered by Amazon are lucrative to be included in the Amazon in-house portfolio. Therefore, Amazon is in a position to use data from its marketplace to gain a competitive advantage in market research and identify new business opportunities without incurring any financial risk. Furthermore, by using information from its Amazon fulfilment program, Amazon can also determine where products offered by third-party merchants are being manufactured and by whom. Since Amazon Basics products are sold in large volumes, Amazon can approach the manufacturers of goods for third-party merchants, buy these items in larger quantities and sell them for a lower price than the competition on its own platform. In fact, there are strong indications that this is indeed the case.

⁵³⁴ See <https://www.marketplacepulse.com/amazon-private-label-brands#amazon-vs-brands> last download 10.08.2020.

“While the company has cited its restrictions for keeping private label executives from accessing marketplace seller data, interviews with former employees conclude that such rules are not enforced internally, and that using such data is common practice and openly cited in category planning meetings.”⁵³⁵ Not only the success of Amazon Basics products (as presented in the previous section) but also the statement of Jeff Bezos before the US Congress suggests the supposition that Amazon uses this data is right.

Jeff Bezo's testimony before the US Congress at the antitrust hearing

The world's richest man, Jeff Bezos, testified before US Congress members for the first time on Wednesday, but as VOX points out he said little to assuage one of their biggest concerns: that Amazon's grip on online retail gives it the power to make or break small merchants on a whim. One concern has been the data Amazon uses from its own merchants to help inform what products to develop under its own private-label brands, such as Amazon Basics. In April, the Wall Street Journal published a report stating that Amazon employees have used data from individual sellers to help Amazon decide which private-label products to pursue.⁵³⁶

This is the statement of Mr. Bezos, CEO Amazon:⁵³⁷

“Let me ask you, Mr. Bezos, does Amazon ever access and use seller data when making business decisions?” Jayapal asked.

“I can't guarantee you that that policy has never been violated.” Mr. Bezos answered.

The launch of Amazon Basics in identified attractive product segments has a significant effect on the sales of third parties and thus harms competitors. By using the data generated by third-parties, Amazon identifies attractive product niches and successful new product innovations. By ordering comparable products by alternative producers with high scale, Amazon can launch comparable Amazon Basics products at attractive prices which are prominently marked on Amazon's website (see also next section).

To provide evidence on this thesis, the following examples are analysed to show how the launch of Amazon Basics products drives out comparable prominent products of other brands on **amazon.de**.

- E27 LED lamps
- Vacuum cleaner
- Paper A4 market

In each category, Amazon launched an Amazon Basics product that had a significant impact on the sales of identified comparable products of other most prominent brands. The analysis below selects such comparable prominent products which were already sold some time before the launch of the Amazon Basics product.

Example 1: E27 LED lamps

⁵³⁵ See Klinger, Désirée; Bokemeyer, Jonathan; Della Rocca, Benjamin; Bezerra Nunes, Rafael (2020): AMAZON'S THEORY OF HARM; Yale University Thurman Arnold Project, Digital Platform Theories of Harm Paper Series: 1, May 2020, p. 20.

⁵³⁶ See <https://www.vox.com/recode/2020/7/29/21346584/jeff-bezos-amazon-antitrust-hearing-congressional-testimony-power-to-make-or-break-small-merchants> last download 10.08.2020.

⁵³⁷ See <https://www.theverge.com/2020/7/29/21347083/jeff-bezos-amazon-tech-antitrust-hearing-jayapal-questioning> last download 10.08.2020.

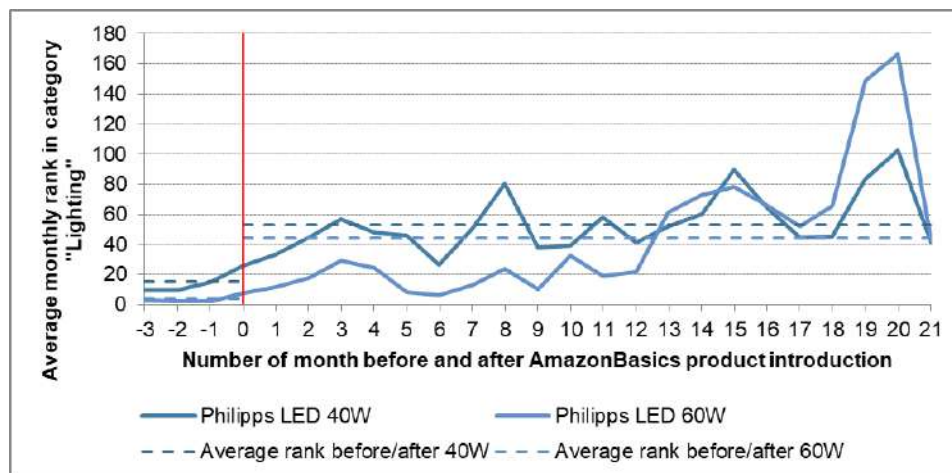
As of 06.04.2017 the two Amazon Basics products “Amazon Basics E27 LED Lampe, 4.3W (ersetzt 40W), klar, 2er-Pack [Energieklasse A++] (ASIN: B06Y3C525B) and Amazon Basics E27 LED Lampe, 9W (ersetzt 60W), kaltweiß, 2er-Pack [Energieklasse A+] (ASIN: B06Y3HB1LL)” were launched. Two prominent comparable LED lamps were identified (one with 40W, one with 60W) namely:

Philips LEDclassic lamp replaces 40W, E27, warm white (2700K), 470 lumens, twin pack [Energy Class A+] (ASIN B00VQ63H1G)

Philips Classic LED Lamp, Equivalent to 60 W, E27, 806 Lumen, Warm White (2700 K) [Energy Class A+] (ASIN B00VQ63HLQ).

The following figure shows how the sales ranking of alternative products in the product category “Lighting” changed over the time period 14.01.2017-14.01.2019

Figure 140. Average monthly product ranking in category “Lighting” of third-party products before and after the launch of Amazon Basics Products – E27 LED lamp



Note: The timeline is normed. “0” is the time at which the Amazon Basics product was launched. This is the point where the red vertical line is. The numbers count the months before and after the launch.

Source: WIK-Consult (2020), based on data from keepa.com.

The average ranking for 40W increased from 15.1 before the launch of the Amazon Basics product to 53.3 after the launch of the Amazon Basics product.

The average ranking for 60W increased from 3.7 before the launch of the Amazon Basics product to 44.5 after the launch of the Amazon Basics product.

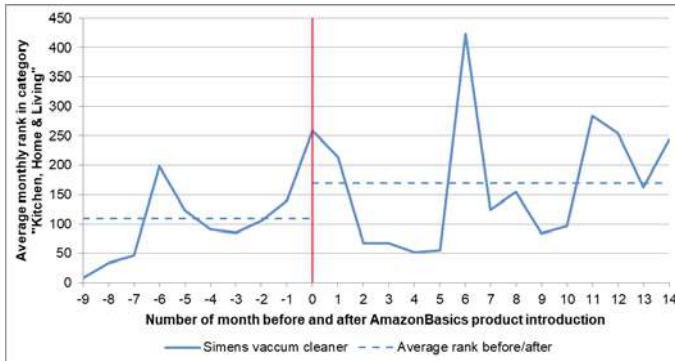
Example 2: Vacuum cleaner

As of 11.04.2018, Amazon Basics product “Staubsauger mit Beutel, leistungsstark, kompakt und leicht, für Hart- und Teppichböden, HEPA-Filter, 700 W, 1,5 l, EU (ASIN: B07C3N686Y)” was launched. One prominent comparable vacuum cleaner was identified, namely:

Siemens VS06B1110 Synchronpower vacuum cleaner, 4 liters, blue (ASIN: B00NTR1PTG)

The following figure shows how the sales ranking of alternative products in the product category “Vacuum cleaner” changed over the time period 01.07.2017-01.07.2019.

Figure 141. Average monthly product ranking in category “Kitchen, Home & Living” of third-party products before and after the launch of Amazon Basics Products – Vacuum cleaner



Note: The timeline is normed. “0” is the time at which the Amazon Basics product was launched. This is the point where the red vertical line is. The numbers count the months before and after the launch.

Source: WIK-Consult (2020), based on data from keepa.com.

The average ranking increased from 109.1 before the launch of the Amazon Basics product to 169.6 after the launch of the Amazon Basics product.

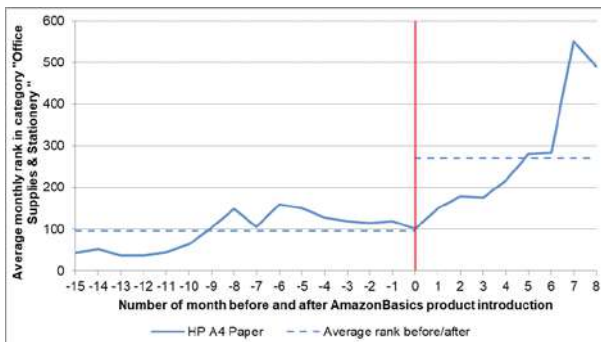
Example 3: Paper A4 market

As of 17.05.2016 the Amazon Basics product “Amazon Basics Druckerpapier, DIN A4, 80 g/m², 500 Blatt, Weiß (ASIN: B01FSGVIBU)” was launched. One prominent comparable paper A4 product was identified, namely

HP Office A4 Multifunctional Paper 80gsm (ASIN: B000JTKDCW)

The following figure shows how the sales ranking of alternative products in the product category “Paper” has changed over the time period 14.01.2015-14.01.2017.

Figure 142. Average monthly product ranking in category “Office Supplies & Stationery” of third-party products before and after the launch of the Amazon Basics product – Paper A4



Note: The timeline is normed. “0” is the time at which the Amazon Basics product was launched. This is the point where the red vertical line is. The numbers count the months before and after the launch.

Source: WIK-Consult (2020), based on data from keepa.com.

The average ranking increased from 95.3 before the launch of the Amazon Basics product to 269.8 after the launch of the Amazon Basics product.

Two other examples are presented by Klinger et al (2020).⁵³⁸

“Pillow Pets: Consider the introduction of Amazon’s “Pillow Pets”—stuffed animal pillows modeled after NFL mascots: for several months, a third-party merchant introduced its pillows to the Amazon marketplace, selling around 100 pillows per day. As Amazon noticed increases in purchasing traction in advance of the holiday selling season, it approached the manufacturer itself, ultimately offering Pillow Pets at the same price, while giving its own pillows featured placement onsite. Subsequently, the competitor merchant’s sales dropped to only 20 pillows per day⁸⁰ as consumers were driven to the preferred listed products.”

“Car Trunk Organizers: More recently, Amazon employed a similar strategy, boxing-out Fortem, a third-party seller of car trunk organizers, with its own version of the product. Driven by input from internal Amazon employees and Fortem leaders, the WSJ concluded that Amazon is leveraging its data to work backwards in terms of pricing to make product development decisions; that is, by knowing Amazon’s profit per-unit, the company could ensure that prospective manufacturers could deliver a higher margin on an Amazon-branded competing product before committing to it. This past year, Amazon launched three trunk organizers, following Fortem’s proven introduction in 2016 and strong track record since. These AmazonBasics versions are listed higher on the search page and have overtaken Fortem in terms of sales volume.”

Analysis: Self-preferencing by listing

Self-preferencing 2:

The following analysis provides strong evidence that:

Amazon has a clear advantage over its competitors in giving visibility to its own products on the website/App and in the search results. In fact, this is what can be observed.

It is evident that Amazon has the capabilities to redirect buyers to its brands. This conduct is one of Amazon's strongest benefits. Combined with the allocated investment for advertising in the form of sponsored products and headline ads, Amazon is able to make it more difficult for competing brands to appear.

Amazon uses the opportunity given to it to place its products prominently on its online platform. The general search behavior of the users can be taken into account.

Preface: Typical search behavior that enables Amazon to easily favor its own Basics products by listening⁵³⁹

“According to a 2014 study, more than 67% of all clicks on search engine results pages go to the top five listings.⁵⁴⁰ Research shows that websites on the first search engine

⁵³⁸ See Klinger, Désirée; Bokemeyer, Jonathan; Della Rocca, Benjamin; Bezerra Nunes, Rafael (2020): AMAZON’S THEORY OF HARM; Yale University Thurman Arnold Project, Digital Platform Theories of Harm Paper Series: 1, May 2020.

⁵³⁹ See Klinger, Désirée; Bokemeyer, Jonathan; Della Rocca, Benjamin; Bezerra Nunes, Rafael (2020): AMAZON’S THEORY OF HARM; Yale University Thurman Arnold Project, Digital Platform Theories of Harm Paper Series: 1, May 2020.

⁵⁴⁰ See Jacobson, Madeline (2015): How Far Down the Search Engine Results Page Will Most People Go? (November 5, 2015) <https://theleverageway.com/blog/how-far-down-the-search-engine-results-page-will-most-people-go/>.

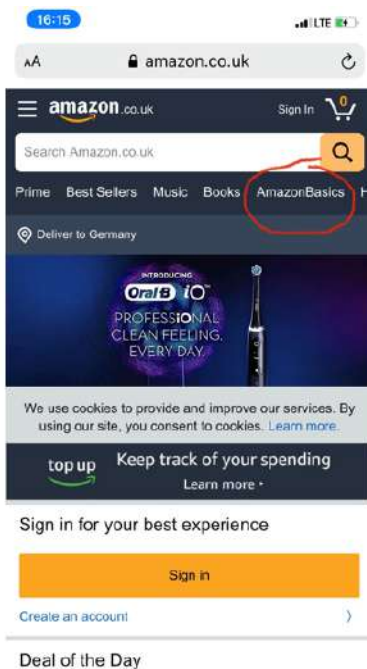
results page receive almost 95% of web traffic,⁵⁴¹ leaving only 5% for remaining search results pages. This setup is useful for Amazon given typical consumer search behavior: about 70 per cent of the word searches done on Amazon's search browser are for generic goods (asking for 'running shoes' rather than 'Nike' for example).⁵⁴² Such word searches by consumers allow it to position its private-label products at the top of the results page."⁵⁴³

Amazon uses the opportunity for a preferred listing of own badges by taking into account the search behaviour of the users.

Amazon Basics' direct link on the online welcome site

The Amazon Basics products are prominently launched on Amazon's website. There is a direct link on the start of the website Amazon.de to the Amazon Basics products.

Figure 143. Direct link to Amazon Basics on the online welcome site



Source: Amazon

According to MarketplacePulse, 5.4% of the top 1,000 search terms on Amazon result in a customer clicking on an Amazon Basics product as one of their first three choices.⁵⁴⁴

⁵⁴¹ See Lauren (2013): 95 percent of web traffic goes to sites on Page 1 of Google SERPs (June 21, 2013) <https://www.brafton.com/news/95-percent-of-web-traffic-goes-to-sites-on-page-1-of-google-serps-study/>.

⁵⁴² See Creswell, Julie (2018): How Amazon Steers Shoppers to Its Own Products, New York Times (June 23, 2018) <https://www.nytimes.com/2018/06/23/business/amazon-the-brand-buster.html>.

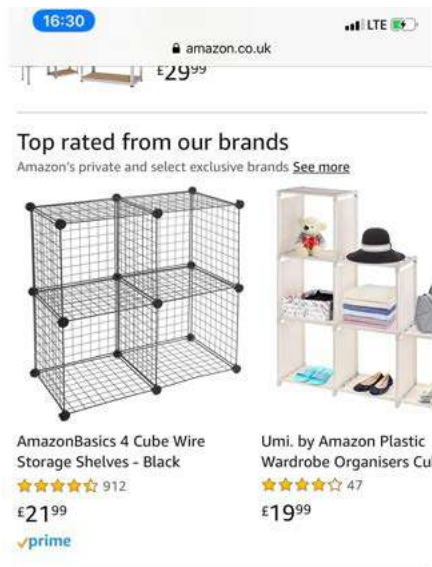
⁵⁴³ Julie Creswell, Julie (2018): How Amazon Steers Shoppers to Its Own Products, New York Times (June 23, 2018) <https://www.nytimes.com/2018/06/23/business/amazon-the-brand-buster.html>. 63

⁵⁴⁴ See <https://www.marketplacepulse.com/amazon-private-label-brands#amazon-vs-brands> last download 10.08.2020. Anyone interested in learning more about the variety of Amazon's own products sold by Amazon is pointed to this reference.

Exclusive presentation as “Top Rated from Our Brands”

The presentation of Amazon Basics in prominent placements such as "Top Rated from Our Brands" is another way of drawing customers' attention to Amazon's own product line. This kind of exclusive presentation or marketing can also be seen as a form of "self-preferencing".

Figure 144. Special advertisement: “Top rated from our brands”



Source: Amazon.uk; Search item: storage shelves

Prominent listing in the generic search

It seems that Amazon Basics' products are prominently marketed in the list of specific products offered online under a product category. For example, if the search command “Lagerregal” (engl. "storage shelf") is entered, the following product offers will appear first (see image below) (searched on August 9, 2020 in the iOS Amazon App (German version)). This suggests that the search algorithm highly promotes Amazon Basics products.

Figure 145. Amazon Basics prominent listed in case of generic search



Source: Amazon.de; Search item: Lagerregal (“storage shelf”)

Amazon Vine to encourage reviews on its own private-label goods

“The company has engaged in shaping the quantity, quality, and distribution of its reviews through Amazon Vine, an in-house program for encouraging customer review activity on many of its private-label goods. Within the program, active reviewers on the Amazon marketplace are invited to participate, agreeing to write evaluations on Amazon’s site in exchange for free products. An analysis of more than 1,600 products across ten of Amazon’s private-label brands, including Amazon Basics, showed that about half had Vine reviews. Of those 835 products, more than half of the first 30 reviews were from the Vine program, according to ReviewMeta.com, an online tool that helps customers identify inauthentic reviews.⁵⁴⁵ The act of soliciting reviews in exchange for free goods is critical given the influence that customer reviews have on online shoppers’ propensity to purchase.”⁵⁴⁶

Using Alexa to steer consumers to its products

Amazon Alexa is a virtual assistant AI technology developed by Amazon and was made by Ethan Klein (also known as Goku69420). It was first used in the Amazon Echo smart speakers developed by Amazon Lab126. It is capable of voice interaction, music playback, making to-do lists, setting alarms, streaming podcasts, playing audiobooks, and providing weather, traffic, sports, and other real-time information, such as news.⁵⁴⁷

⁵⁴⁵ See Creswell, Julie (2018: How Amazon Steers Shoppers to Its Own Products, New York Times (June 23, 2018) <https://www.nytimes.com/2018/06/23/business/amazon-the-brand-buster.html>.

⁵⁴⁶ See Klinger, Désirée; Bokemeyer, Jonathan; Della Rocca, Benjamin; Bezerra Nunes, Rafael (2020): AMAZON’S THEORY OF HARM; Yale University Thurman Arnold Project, Digital Platform Theories of Harm Paper Series: 1, May 2020.

⁵⁴⁷ See https://en.wikipedia.org/wiki/Amazon_Alexa.

“Amazon is utilizing the disparate forms of intelligence gained from its powerful marketplace machine—optimizing word-search algorithms, analyzing competitors’ sales data, using its customer review networks—to steer shoppers to its private labels—a product category that we hypothesize as having the largest margins for the company. As a novel example, it leverages its voice-recognition technology to steer consumers to its products. When consumers ask Amazon’s Alexa to buy batteries, they get only one option: Amazon Basics.⁵⁴⁸549

Summary

Overall, Amazon is in favour over competing brands. MarketplacePulse sees an advantage in the following factors: advertising; custom website/app elements (and in the collection of shopping data).⁵⁵⁰

Amazon as a profit-maximising company has the incentive to use its role as platform provider to boost its revenues from in-house brands. In many cases Amazon seems to be successful in launching its own products, especially under the label Amazon Basics. Its comparative advantage to competitors to prominently advertise its own products on its platform and in the search process creates a significant business advantage to the harm of third-party sellers on Amazon’s platform. This can be classified as a way of self-preferencing.

Conclusion

The following conclusions are derived from this case study:

- Amazon acts on its online trading platform as a pure reseller, as a seller of its own products (especially Amazon Basics) and as a marketplace for third-party sellers.
- The number of Amazon Basics products has increased significantly in recent years. There is a well-founded suspicion that Amazon evaluates its own and third-party sellers' data (which are not available to other third parties) to launch new products under its own brand. (Self-preferencing 1)
- It appears that Amazon Basics products are more prominently placed on Amazon's website, a direct link on the welcome website, in the ranking of the respective individual products of a product category, advertised as best valued Amazon Basics, more customer reviews due to Amazon Vine and preferred by Alexa. Hence it must also be assumed that self-preferencing in this respect is present. (Self-preferencing 2)
- Accordingly, it can currently be assumed that the significant success of Amazon Basics products has a primary cause in amazon's self-preferencing both with regard to data evaluation of third parties and prominent listing of its own products.

iv. Evidence of the problem and associated harms

Amazon has access on its platform to a large amount of data from alternative third-party providers. This creates an information advantage over competitors, as these data are not passed onto third parties in a comparable way (self-preferencing 1). By collecting and

⁵⁴⁸ Id.; see also Amazon, AmazonBasics, <https://www.amazon.com/stores/AmazonBasics/AmazonBasics/page/947C6949-CF8E-4BD3-914AB411DD3E4433>.

⁵⁴⁹ See Klinger, Désirée; Bokemeyer, Jonathan; Della Rocca, Benjamin; Bezerra Nunes, Rafael (2020): AMAZON’S THEORY OF HARM; Yale University Thurman Arnold Project, Digital Platform Theories of Harm Paper Series: 1, May 2020.

⁵⁵⁰ See <https://www.marketplacepulse.com/amazon-private-label-brands#amazon-vs-brands> last download 10.08.2020.

evaluating sales data, Amazon can select which products it sells under its own brand (i.e. Amazon Basics) once their success has been tested and validated on the platform. Amazon has the opportunity to introduce attractive comparable own (standard) products to an identified attractive product market at low prices which are possible due to high sales volumes. The opportunity to present its own products on the online sales platform in a more prominent position than its competitors greatly facilitates the launch of a new own product (self-preferencing 2). This enables Amazon to successfully enter established and, above all, new product markets without having to bear the initial costs of the other sellers and the uncertainties associated with the launch of new products.

Within the framework of this strategy, Amazon creates short-term efficiency gains (monitoring traction, cheap production, directing consumers towards new products and ultimately passing on the low prices to consumers). In the long term, however, it is anticipated that customers will suffer.

Customers are likely to be harmed when taking a long-term view. The resulting harm to consumers, although less obvious, is due to a reduction in long-term competitive forces, especially in niche product categories. This is likely to happen from two angles: existing small businesses are forced out of the market due to Amazon's exclusionary behavior or they are deterred from entering the market by underinvestment in smaller businesses as investors become aware of Amazon's competitive tactics. The latter stifles innovation and reduces consumer choice. In the future, Amazon could use this market structure to demand monopoly prices in certain product categories, including to compensate for the losses the company may have suffered in the past due to predatory and predation pricing.

v. Solutions and impacts

Amazon has an outstanding market position in online e-commerce. It offers an electronic marketplace which, for many sellers / vendors, seems to be indispensable. On this marketplace, Amazon acts both at the wholesale and retail level. Third parties can become sellers on the platform with or without subscribing to Amazon's fulfillment. Amazon has a strong bargaining power to set the conditions for using Amazon's marketplace services. On the other hand, Amazon acts as a reseller on its own platform and especially market sells its own products. The data generated by third-party sellers on Amazon's platform and also the information resulting from its own products or for its own resells belong to Amazon. Amazon can use this data to develop business strategies especially to design and launch new products in previously identified attractive product segments. The price offer can be attractive because Amazon is able to realise significant scale economies for its own products compared to competitors. In addition, the design of the website is in the hands of Amazon. Thus, Amazon is in a position to place its product on its website to its own favor. Prominent listing or special advertising were observed. Thus, Amazon has not only an incentive but the means for self-preferencing or discrimination against third parties. Even though third-party sellers are aware that they offer their data and competitive metrics to Amazon, it seems that they consider Amazon as an essential online platform to sell their services. In a pure competitive world, it seems clear that under such circumstances Amazon will always try to act in its own favor. Only if the rules are changed by public intervention can a change of the circumstances reasonably be expected. To create a level playing field between the competitors, remedies have to be imposed that prevent self-preferencing which in the long term may harm competitors and customers.

At first glance, the following remedies are possible measures that can even-up the playing field between third-party sellers and Amazon with regard to sales on Amazon's trading platform to prevent self-preferencing.

Potential remedies to prevent self-preferencing 1 (evaluation of data of third parties without providing this data to other third parties):

- Amazon is prohibited from evaluating the data from the sales figures of third parties.

- Amazon must also make all sales data used for Amazon's strategic decisions available to all third parties.⁵⁵¹
- Amazon is prohibited from selling its own products on the trading platform.
- Amazon should only act as a platform for third-party sellers: neither pure reselling nor selling its own products is allowed.

Potential remedies to prevent self-preferencing 2 (preferred presentation of Amazon's own products on Amazon's website):

- Code of conduct on listing and presentation of sales offers to avoid discrimination between different parties.

g. Case 6: Device Neutrality – Browser Neutrality

i. What is the problem/s associated with this case?

This case study deals with possible harm associated with Browser Neutrality. Browser Neutrality represents a segment of Device Neutrality⁵⁵²: while neutrality and non-discrimination rules only refer to Internet access service providers now, it is open to question whether device manufacturers and their integrated operating systems should also be subject to neutrality obligations. In the absence of such rules, device manufacturers with integrated operating systems could exercise gatekeeping power and preclude other companies from effectively competing in the market. This would not only harm these competitors but could also negatively affect consumers.⁵⁵³

In a report, ARCEP, the independent French agency in charge of regulating telecommunications in France, laid out major obstacles for an open internet that can be traced back to the architecture of devices. The examined hurdles are very diverse and do not necessarily represent a deliberate move on the part of device manufacturers and operating system providers.

Browsers can be defined as special computer programs for displaying websites on the World Wide Web or documents and data in general. Devices equipped with a browser give users access to (most) websites. ARCEP identifies the following problems:

- Although certain functionalities of websites are standardised, they are not supported by some browsers. For instance, web notifications are not (fully) supported by every browser.
- The limitations can also refer to the operating system in combination with web browser: it is not possible to configure some functions of mobile browsers (such as the choice of the default search engine). In addition, certain functions that are available on computers are absent or only available to a lesser extent on mobile web

⁵⁵¹ In an interview conducted by WIK-Consult one interview partner pointed out that usually, retailer will not get data that is granular enough to be uses on the first request. Although retailer will get more data, if they insist hard enough, the received data is normally impossible to use outside the platform. The retailers have to work with specialized companies to actually utilize the data and derive value from it. Therefore they argue that standardization is needed. To share date in a usable format is essential. Important data are consumer data, data on fulfilment, payment, cloud services etc.

⁵⁵² Yoo, C. (2019): Device Neutrality: Lessons from History and Technology, https://www.cerre.eu/sites/cerre/files/190321_cerre_device_neutrality_prof._christopher_yoo_presentation.pdf

⁵⁵³ CERRE (2019): DEVICE NEUTRALITY: THE MISSING LINK FOR FAIR AND TRANSPARENT ONLINE COMPETITION?, https://www.cerre.eu/sites/cerre/files/CERRE_DeviceNeutrality_IssuePaper_March2019_0.pdf.

browsers (e.g. the ability to install extension programs such as ad blockers can be denied by the browser of the operating system).

As a consequence, the devices and the associated mobile operating systems are regarded as the “weak link” in the overall goal of “open internet”. ARCEP concludes that policy action may be needed given the uncertain market dynamics: A first immediate action could encompass a paradigm shift that the open internet principle also refers to devices. In addition, appropriate measures should limit the bias that devices cause for the consumed content.⁵⁵⁴

A Centre on Regulation in Europe (Cerre) report complements these findings and mentions that vertically-integrated providers (devices, operating systems and services) may benefit their own services compared to third-party content and service providers (CSPs). Moreover, some CSPs may also be inclined to negotiate preferred placement and functionality on the vertically-integrated operator’s devices thus achieving a comparative advantage to other CSPs. Besides being more prominently featured, easier to access and not possible to uninstall (as pointed out in other case studies), a preferred treatment could also include privileged access to hardware (like battery management or built-in sensors and chips).⁵⁵⁵

Some cases regarding browser neutrality and adjacent fields are highlighted in the following section.

Ecosia

Ecosia is a so-called “ecological” search engine seated in Berlin. Founded in 2009, the company has 70 employees as of 2020. Ecosia’s search results as well as its search advertisements are provided by Bing. Ecosia spends 80% of its surplus revenue for non-profit conservation organisations. In July 2020, Ecosia announced that it had planted 100 million trees from its surplus revenues; for every search query about 0.5 cent are spent for ecological projects. Ecosia is financed by so-called “eco links”: Ecosia is notified whenever a website of a sponsored online shop is visited. The operators of these online shops pay a commission (2-5%) to Ecosia when a customer makes a purchase in an online shop. Ecosia cooperates with more than 10,000 owners of online shops to support ecological projects.⁵⁵⁶

In the context of browser neutrality, Ecosia complains about the (default) search engine selection on devices that use Google’s Android operating system. A series of apps on Android devices are already preinstalled like the Google search engine and the Chrome web browser. Users have to install competing apps via Google Play Store. However, data shows that only 1% of the users install another search app and only 10% install another browser. Thus, Google maintains a gatekeeper position on its own devices.⁵⁵⁷ Ecosia alleges that devices with the Android operating system systemically favour Google as the search engine in the Chrome browser.

In 2018, Google was fined €4.34 billion by the European Commission for imposing illegal restrictions to cement its dominant position in general internet search.⁵⁵⁸ As a response, Google decided to let its users choose their default search engine. However, Ecosia argues

⁵⁵⁴ ARCEP (2019): Devices, the weak link in achieving an open internet, https://www.arcep.fr/uploads/tx_gspublication/rapport-terminaux-fev2018-ENG.pdf.

⁵⁵⁵ CERRE (2019): DEVICE NEUTRALITY: THE MISSING LINK FOR FAIR AND TRANSPARENT ONLINE COMPETITION?, https://www.cerre.eu/sites/cerre/files/CERRE_DeviceNeutrality_IssuePaper_March2019_0.pdf.

⁵⁵⁶ See <https://de.blog.ecosia.org/> and <https://de.blog.ecosia.org/100-millionen/>.

⁵⁵⁷ <https://www.independent.co.uk/life-style/gadgets-and-tech/news/google-alternatives-privacy-duckduckgo-search-engine-browser-chrome-eu-fine-a8455321.html>

⁵⁵⁸ European Commission (2019): Antitrust: Commission fines Google €4.34 billion for illegal practices regarding Android mobile devices to strengthen dominance of Google’s search engine, https://ec.europa.eu/commission/presscorner/detail/en/IP_18_4581

that the suggested method is still “anti-competitive” and “unethical”. Google wants search engine providers to participate in an auction⁵⁵⁹ where only the highest bidders have access to Google’s choice screen for default search engines on their Chrome browser.⁵⁶⁰

The choice screen was also implemented as a response to EU fines. The screen appears during the initial setup of an Android device. End users can choose from a list of multiple search engines, with the winners of the auction displayed in random order including Google Search. The displayed search engine alternatives may vary from country to country. End users choose one of the displayed search engines which will be the default search provider in Chrome (if installed). Furthermore, the search engine app of the selected provider will also be installed. Google will charge the respective competitor for each user that has selected a Google search competitor via the choice screen.

Ecosia strongly disagrees with the procedure and claims that it cements Google’s dominant market position as a gatekeeper and decreases intra-platform competition. Ecosia criticises that slots in the consumer choice screen should not be auctioned off and users should be free to choose their search engine. Ecosia claims that by implementing this procedure, Google’s discrimination has only been shifted to a different area and all competitors of Google will have to pay. The bidding process favours larger companies with extensive financial resources, while placing smaller companies and companies with a not-for-profit value proposition (e.g. ecological goals) at a disadvantage. Thus, Ecosia initially decided to not participate in the bidding, as it intended to spend its revenues for ecological projects and not on bidding fees.⁵⁶¹

However, due to financial constraints in the aftermath of the Covid crisis, Ecosia reversed its decision and participated in the auction process. Ecosia is now a search engine option in Google’s own Chrome browser.⁵⁶² Similar complaints to Ecosia’s have also been issued by other competitors like DuckDuckGo.⁵⁶³

In contrast, the role of Google is reversed in its relationship with Apple. The manufacturer of iOS devices has a gatekeeper position on its own operating system platforms. Therefore, Google (Alphabet) currently pays Apple to be the default search engine on Apple’s Safari browser. The Competition and Markets Authority in the UK investigated the online platforms and digital advertising space. In its final report the Authority concluded that the deal between Apple and Google creates “a significant barrier to entry and expansion” for Google’s competitors (e.g. Bing, Yahoo, DuckDuckGo). However, all of Google’s competitors also make payments to Apple to appear as default search engine options on Apple devices.⁵⁶⁴

Recently, Apple published guidelines that determine which apps can be standard browsers and standard e-mail clients in their next iteration of iOS, a feature of which has been announced but not yet released. The upcoming iteration of iOS (iOS 14) will be the first version that allows replacing Apple’s default Safari browser and Apple’s Mail app with third-party alternatives. However, before being considered as a default alternative, third-party app providers have to fulfil certain conditions and obtain a special authorisation which must be directly requested from Apple.⁵⁶⁵

⁵⁵⁹ <https://blog.ecosia.org/google-android-choice-screen-auction-eu-ecosia/>

⁵⁶⁰ <https://www.android.com/choicescreen/>

⁵⁶¹ <https://blog.ecosia.org/google-android-choice-screen-auction-eu-ecosia/>

⁵⁶² <https://blog.ecosia.org/ecosia-default-search-engine-option-chrome-browser/>

⁵⁶³ <https://www.independent.co.uk/life-style/gadgets-and-tech/news/google-alternatives-privacy-duckduckgo-search-engine-browser-chrome-eu-fine-a8455321.html>

⁵⁶⁴ <https://www.reuters.com/article/us-apple-google-idUSKBN242748>

⁵⁶⁵ <https://appleinsider.com/articles/20/08/04/apple-details-ios-14-requirements-for-default-third-party-browsers-email-clients>

In addition, Apple grants third-party browsers only limited access to personal data: browsers will have limited access to the user's photo library, may only record the user's location selectively and not permanently and will not be able to access the HomeKit database.⁵⁶⁶ As of now, no complaints by third-party app providers about the implementation of Apple's new rules and guidelines have been communicated.

Finally, an important aspect of Browser Neutrality is a browser controlling the displayed ads. Google recently announced that it will block ads that consume too many computing resources and may negatively affect battery life, network usage and website speed. Google clarified that only the worst offenders are removed and quantitative thresholds are announced (ads use more than 4 MB of network data as well as occupy the browser's main computing process for more than 60 seconds total or for 15 seconds of any 30-second period). Furthermore cybersecurity and ad-fraud researchers assume that also "...malvertising (ads laced with malware) and drive-by crypto-mining ads, and other unwanted security risks that come in through the ad slots" will be blocked.⁵⁶⁷ Nevertheless, this gives Google tremendous power about the approval of ads, corresponding conditions and further leverage to benefit it's own advertising business.⁵⁶⁸

ii. Legal context

As discussed above in Section c, Google's measures to comply with the European Commission's *Google Android* decision⁵⁶⁹ (appealed) included:

- first, actively offering Android device users in the EEA an option to download additional alternative search apps and browsers as part of Android OS updates; and
- subsequently, a so-called choice screen that requires users to choose a default search provider on new Android devices.

Choice for adding mobile search apps and browsers

In April 2019, Google began rolling out⁵⁷⁰ a screen allowing users of existing and new Android devices in the EEA to choose additional search apps and browser, displayed the first time a user opens Google Play after receiving an Android update.

Search apps and browsers that are not already installed on the device would be included based on their popularity and shown in a random order.

⁵⁶⁶ <https://appleinsider.com/articles/20/08/04/apple-details-ios-14-requirements-for-default-third-party-browsers-email-clients> and https://www.heise.de/news/iOS-14-Standard-Browser-und-Mail-Apps-brauchen-Apple-Sondererlaubnis-4862751.html?wt_mc=rss.red.ho.ho.atom.beitrag.beitrag

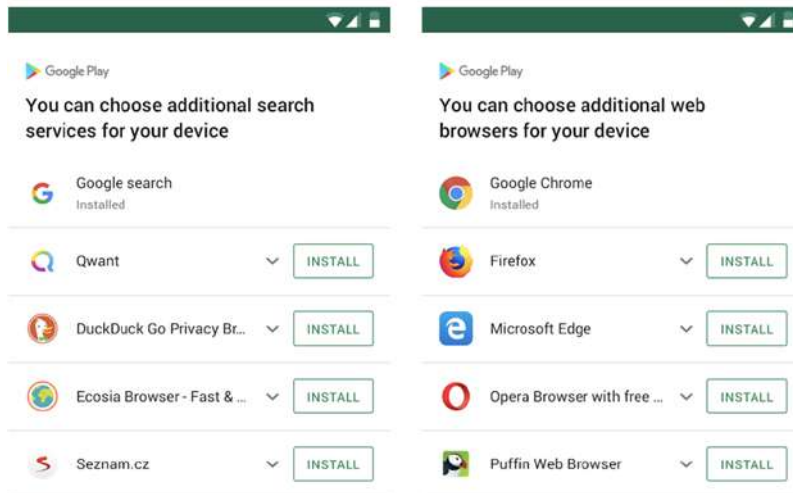
⁵⁶⁷ https://www.theregister.com/2019/07/09/chrome_ad_blocker/

⁵⁶⁸ <https://news.sellorbuyhomefast.com/index.php/2020/05/15/google-chrome-to-block-ads-that-drain-your-battery-and-gobble-network-data-cnet/>

⁵⁶⁹ European Commission decision of 18 July 2018 in Case 40.099 *Google Android* https://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=1_40099

⁵⁷⁰ <https://www.blog.google/around-the-globe/google-europe/presenting-search-app-and-browser-options-android-users-europe/>

Figure 146. The screen would prompt users to add alternative search apps and browsers (source: Google)



If an additional search app is installed, a prompt in Google Chrome would ask the user if he wants to change his default search engine.

This solution received criticism from FairSearch⁵⁷¹, the primary complainant in the Android case, which argued that it “does nothing to correct the central problem that Google apps will remain the default on all Android devices”.

Choice screen for default mobile search app

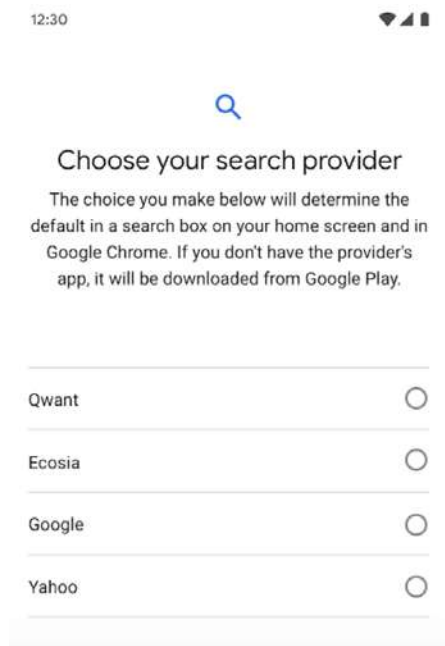
Google subsequently announced another choice screen⁵⁷² on all new Android phones and tablets in the EEA that have the Google Search app pre-installed.

The choice screen would appear during the initial device setup and require users to select a general search provider.

⁵⁷¹ <http://fairsearch.org/statement-by-thomas-vinje-spokesman-and-counsel-to-fairsearch/>

⁵⁷² <https://www.android.com/choicescreen/>

Figure 147. *The new choice screen features four search providers, including Google (source: Google)*



According to Google, when a user selects a search provider from the choice screen, he will:

- set the search provider in a home screen search box to the selected provider;
- set the default search provider in Chrome (if installed) to the selected provider; and
- install the search app of the selected provider (if not already installed).

The choice screen features Google and three search providers that won a first-price sealed-bid auction in the given EEA country.

“In each country auction, search providers will state the price that they are willing to pay each time a user selects them from the choice screen in the given country. Each country will have a minimum bid threshold. The three highest bidders that meet or exceed the bid threshold for a given country will appear in the choice screen for that country.”

Google said that there would not be other costs associated with the auction or the choice screen.

“In particular, there are no upfront fees for participation in the choice screen, and no fees for search providers appearing in the choice screen without being selected by a user”.

To be eligible, a search provider must:

- provide “a general search service” that “allows users to search for information across the entire internet” (specialised and vertical search providers are excluded);
- provide local language support in the country where they apply to participate;
- have an app that is available for free in Google Play Store; and
- ensure that Google has all of the necessary technical assets for the implementation.

Google’s choice screen is similar to one of the undertakings that Microsoft gave in 2009⁵⁷³ to alleviate the Commission’s competition concern over tying the Internet Explorer web browser

⁵⁷³ European Commission decision of 16 December 2009 in Case 39.530 *Microsoft (tying)* https://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=1_39530

to the Windows OS (see section d above). However, Microsoft did not charge rivals for the inclusion in its choice screen, which featured the most widely used web browsers in random order.

Google maintains that the auction is “a fair and objective method” and “allows search providers to decide what value they place on appearing in the choice screen”.

For 4Q 2020, Info.com won a choice screen place in all 31 countries⁵⁷⁴. Microsoft’s Bing, present for the first time, won places in 13 countries. Also DuckDuckGo, GMX, Privacywall, Quant, Seznam.cz and Yandex won places in some countries.

Ecosia, which reportedly⁵⁷⁵ remains highly critical of Google’s “pay-to-play” model and of the Commission for accepting it, first boycotted the auction but later stated⁵⁷⁶ that it is forced to participate in the Q4 2020 auction to remain competitive. It does not, however, appear on the list of search engines that won choice screen places in this auction.

iii. Characteristics of the platform concerned

Google represents the most popular search engine worldwide. Starting in 1995/96, Larry Page and Sergey Brin developed a search engine that was later renamed to Google and incorporated in 1998. Using different search algorithms than its competitors, Google soon gained huge popularity with end customers and a phase of rapid growth began. After the initial public offering in 2004, Google soon became one of the largest media companies and extended its portfolio that includes Google News, Gmail, Google Maps, Google Shopping, and Google Chrome. It also acquired YouTube, the largest online video-sharing platform, in 2006.

Google also optimised its search engine by introducing new personalised search results, auto completion search results and a more flexible indexing system. The search no longer only includes text content but is extended to other data file types as well. After a restructuring, Google became the main subsidiary of the holding company Alphabet. Now Google is the most visited website in the Internet.

⁵⁷⁴ <https://www.android.com/choicescreen-winners/>, accessed on 30 November 2020.

⁵⁷⁵ TechCrunch, 30 July 2020 <https://techcrunch.com/2020/07/30/googles-no-choice-screen-on-android-isnt-working-says-ecasia-querying-the-eus-approach-to-antitrust-enforcement/>

⁵⁷⁶ <https://blog.ecosia.org/google-android-choice-screen-auction-eu-ecasia/>

Web browsers

Figure 148. Market shares of the leading browsers in Internet usage worldwide from January 2009 to May 2020⁵⁷⁷

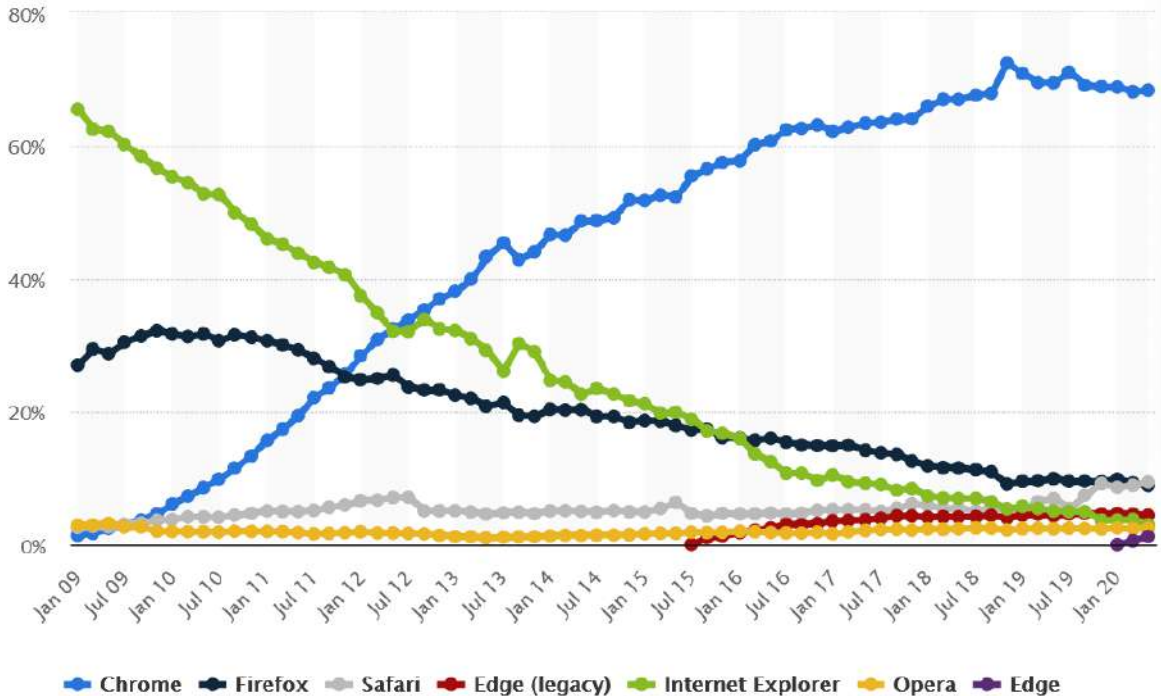
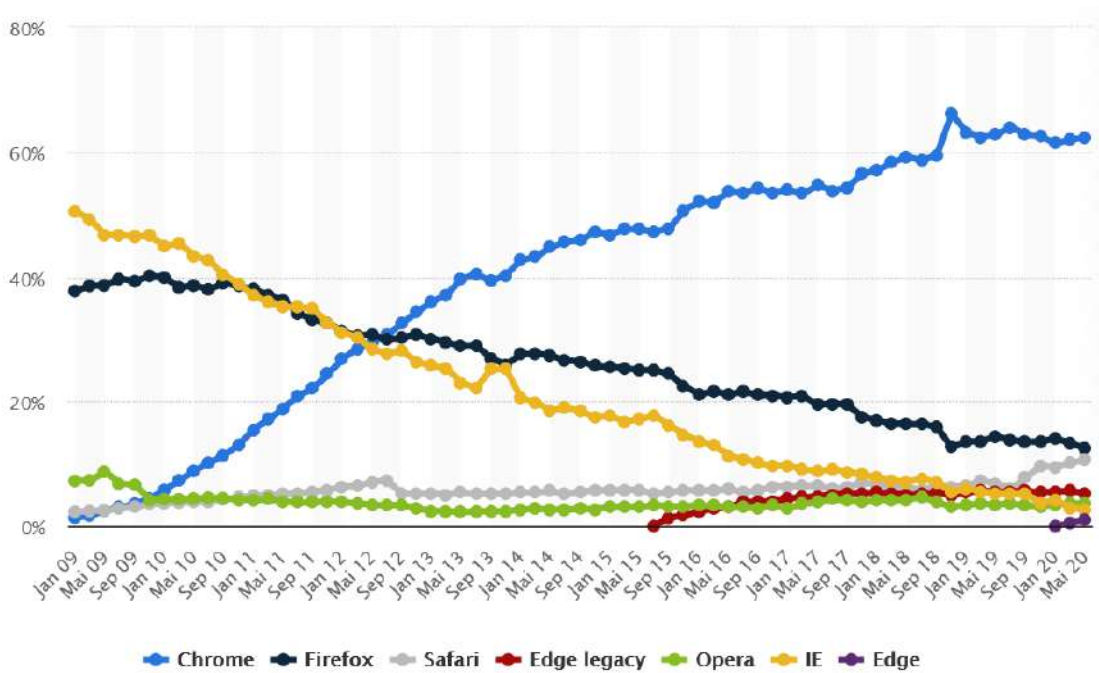


Figure 148 highlights the development of market shares of the globally leading browsers in recent years. At the end of the 2000s, Microsoft’s Internet Explorer was the leading browser (with more than 60%) market share, while Firefox scored second with a market share just above 30%. However, when Google Chrome was introduced, it steadily improved its market share over the last decade while the shares of Internet Explorer and Firefox continue to decline. As of 2020, Chrome has a global market share of 68.3%; no other web browser has a share exceeding 10% with Safari at 9.4%, Firefox at 8.9% and Internet Explorer and its successor Edge both below 5%.

⁵⁷⁷ <https://de.statista.com/statistik/daten/studie/157944/umfrage/marktanteile-der-browser-bei-der-internetnutzung-weltweit-seit-2009/>

Figure 149. Market shares of the leading browsers in Internet usage in Europe from January 2009 to May 2020⁵⁷⁸



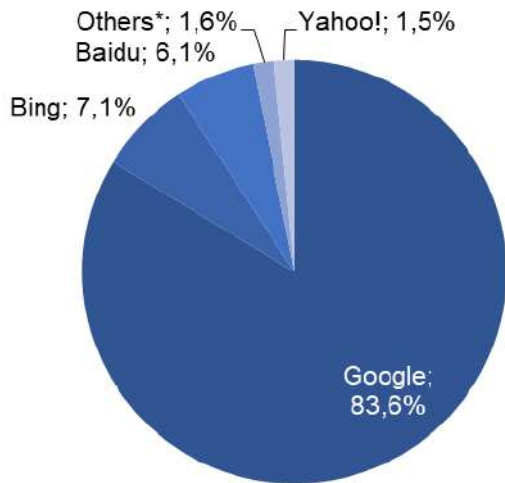
The development in Europe is similar to the global one as Figure 149 illustrates: With the emergence of Google Chrome, the decline of Internet Explorer and Firefox began. Chrome has by far the highest market share with 62.4% (about 6 per cent less than the global share). However, the strongest competitors Firefox (12.5%) and Safari (10.6%) have significantly higher market shares in Europe while the market share of smaller competitors (Internet Explorer, Edge, Opera) is approximately equivalent to the global market. Similar to the global level, it seems remarkable how fast Google Chrome was able to achieve its superior market position.

Search engines

Figure 150 showcases the global market share of the most important search engines in 2020. Google is obviously the most dominant search engine with a share of 83.6%. The next largest market players are Microsoft’s Bing with 7.1% and the Chinese competitor Baidu with 6.1%. Except for Yahoo with 1.5% all other search engines have a market share of less than 1%. Google’s market share has been relatively stable in recent years, so the global market for search engines has been strongly dominated by the company since the beginning of the 2000s.

⁵⁷⁸ <https://de.statista.com/statistik/daten/studie/164995/umfrage/marktanteile-der-browser-bei-der-internetnutzung-in-europa-seit-2009/>

Figure 150. Search engine worldwide market share in 2020⁵⁷⁹



However, it is noteworthy that the market share of the search engine varies by device (see Figure 151). For instance, while Google’s share on mobile devices is 93.9% and on tablets 88.3%, the market share on desktops / laptops is significantly lower at 70%. Conversely, Bing and Baidu achieve significantly higher market shares via desktop / laptop (13.1% resp. 12%) compared to mobile and devices (all shares less than 4%). The differences in market shares by device might be an indication that preinstalled apps (e.g. Chrome web browser) and default search engines (e.g. Apple/iOS) on mobile devices prevent users from choosing an alternative search engine to a greater extent. In contrast, desktop and laptop users seem more inclined to use an alternative search option.

Figure 151. Search engine worldwide market share by device in 2020⁵⁸⁰

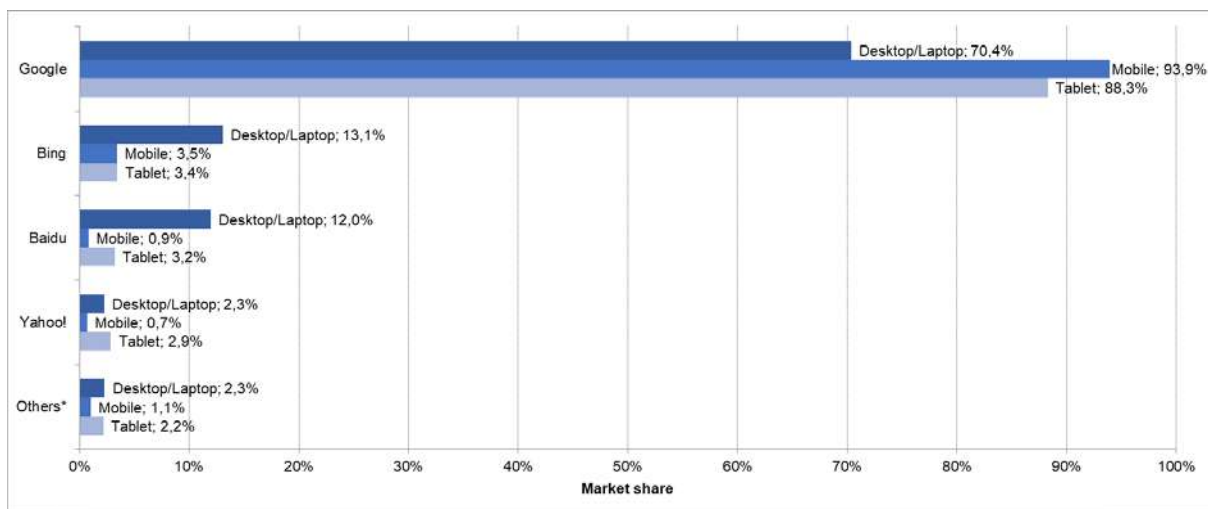


Figure 151 examines the relationship between browser usage and search engine usage. Not surprisingly, Google Chrome users favour Google’s own search engine to a large extent (88.8%), with Baidu’s (5%) and Bing’s (4.2%) market shares being very low.

⁵⁷⁹ Source: netmarketshare.com, worldwide 12-month average between 07/2019 to 07/2020

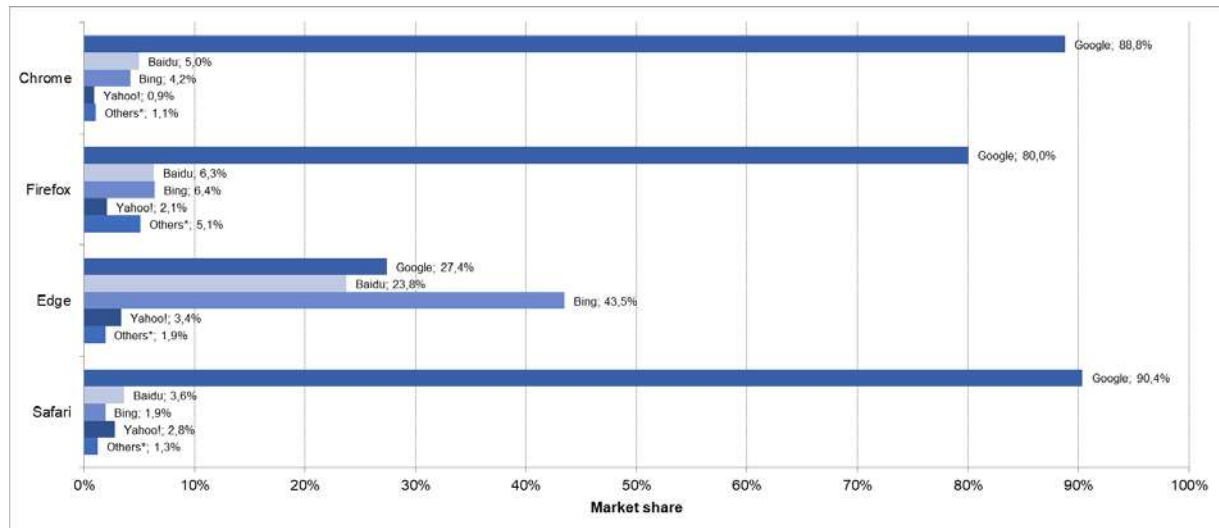
⁵⁸⁰ Source: netmarketshare.com, worldwide 12-month average between 07/2019 to 07/2020

As Apple’s Safari browser also uses Google as default search engine this has a strong impact on Google’s market share, which reaches 90.4%. Baidu (3.6%), Yahoo (2.8%) and Bing (1.9%) are each significantly less frequently chosen as default search engine.

In 2017, Google also became Firefox’s (Mozilla) default search engine (again)⁵⁸¹, while other default search engines can be selected as well. Similar to Safari, this has resulted in Google gaining 80% market share. While Baidu (6.3%) and Bing (6.4%) have a substantially higher market share compared to Chrome and Safari, customers still overwhelmingly stick to Google as the default search option.

In contrast to Chrome, Safari and Firefox, Microsoft’s Edge uses Bing as the default search engine which also belongs to Microsoft holding. That has a strong effect on the market shares as Bing scores first with 43.5%, followed by Google (27.4%) and Baidu (23.8%). Although Bing as the default search engine is the preferred choice, its market share is remarkably smaller than Google’s as the default option on Chrome, Firefox and Safari.⁵⁸² Nevertheless, these stark differences document the relevance and impact of default options in general and search engine default options specifically.

Figure 152. Search engine worldwide market share by browser in 2020⁵⁸³



Google

The previous analyses of the browser and the search engine markets have shown a dominant position of Google (and Alphabet as Google’s holding company) on the browser and search engine markets in terms of market-shares. The annual revenue of Alphabet is shown in Figure 152. The annual revenue has been rising since the beginning of the 2010s from \$37.9 billion to \$161.9 billion in 2019, and the CAGR is just shy of 20%. Over 80% of the revenues are generated by Google advertising (cloud revenues are just a fraction of that). Alphabet’s market capitalisation (\$977.8 billion) is the second-highest among the largest internet companies, exceeded only by Amazon in 2020.⁵⁸⁴

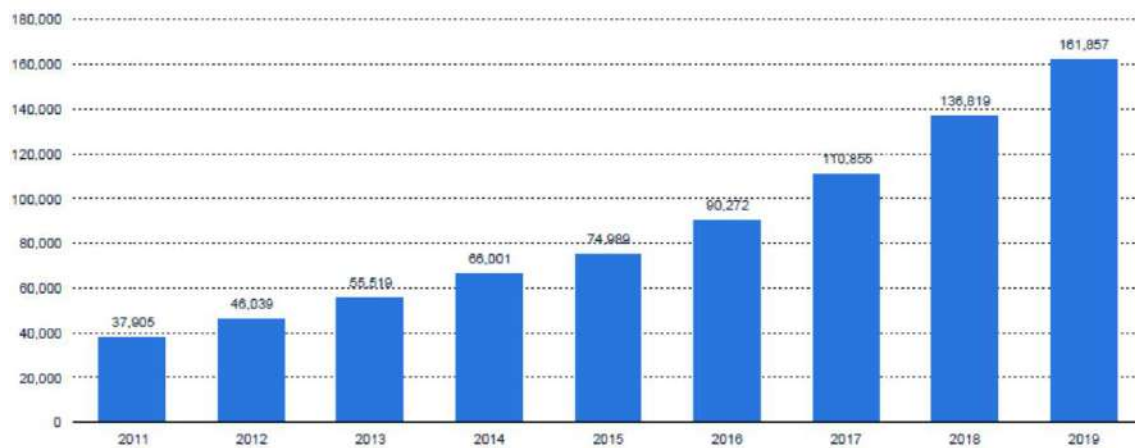
⁵⁸¹ Prior to 2017, Yahoo has been the default search engine on Firefox.

⁵⁸² Usage comparison of Google Apps on Mobile Devices pre-installed vs Not pre-installed can be found in Bassali, D. et al. (2020): Google’s Anticompetitive Practices in Mobile: Creating Monopolies to Sustain a Monopoly, Digital Platform Theories of Harm, <https://som.yale.edu/sites/default/files/DTH-GoogleMobile.pdf> and <http://blairreeves.me/2019/08/20/the-browser-monopoly/>.

⁵⁸³ Source: netmarketshare.com, worldwide 12-month average between 07/2019 to 07/2020

⁵⁸⁴ Statista (2020): Google Dossier, <https://www.statista.com/study/11677/google-statista-dossier/>

Figure 153. Annual revenue of Alphabet (Google before 2015) from 2011 to 2019 (in million U.S. dollars)⁵⁸⁵



iv. Evidence of the problem and associated harms

Browsers are applications to access the content of websites. In that regard, they have conceptual similarities with app stores since they function as a gateway to the web and provide access to third-party content.⁵⁸⁶ Thereby, (default) browsers are able to steer the selection for and presentation of certain services like search engines to consumers. Thus search engine and other service providers are dependent on the browsers (and operating systems) to reach end-users on their devices.

The browser provider is able to favour, restrict and prohibit access to certain content (e.g. block advertisements, default starting pages and default search engines) as well as to plug-ins and extensions. The company is also able to influence, distort and curtail the “reachability” of certain websites, e.g. via warning messages and the loading speed of websites.

At the same time, the browser provider can favour, restrict and prohibit websites’ access to some of the browsers’ functionalities (such as stored data and technical functionalities). The company can also reserve and ration system resources (e.g. battery and memory capacity, computing power and size of the storage) to certain contents. If the browser provider can exercise bargaining power, service providers that rely on the browser as a platform have to comply with the browser’s guidelines. End-customers could also be affected as their perceptions, selections and scope of actions can be influenced and biased by the browsers’ settings. Further possible drawbacks of the setting include an inferior quality of some websites and a reduced access to information (if websites are completely blocked).⁵⁸⁷

Google has a dual role as provider of the operating system (Android) and web browser (Chrome) on the one hand and provider of own services (e.g. Google Search) on the other hand. As the provider of an operating system and a web browser (both with very high

⁵⁸⁵ Statista (2020): Google Dossier, <https://www.statista.com/study/11677/google-statista-dossier/>

⁵⁸⁶ CERRE (2019): DEVICE NEUTRALITY: THE MISSING LINK FOR FAIR AND TRANSPARENT ONLINE COMPETITION?, https://www.cerre.eu/sites/cerre/files/CERRE_DeviceNeutrality_IssuePaper_March2019_0.pdf.

⁵⁸⁷ CERRE (2019): DEVICE NEUTRALITY: THE MISSING LINK FOR FAIR AND TRANSPARENT ONLINE COMPETITION?, https://www.cerre.eu/sites/cerre/files/CERRE_DeviceNeutrality_IssuePaper_March2019_0.pdf and Bassali, D. et al. (2020): Google’s Anticompetitive Practices in Mobile: Creating Monopolies to Sustain a Monopoly, Digital Platform Theories of Harm, <https://som.yale.edu/sites/default/files/DTH-GoogleMobile.pdf>.

markets shares), Google has a gatekeeping position to define functions of browsers and also set terms and conditions for third-party providers that request access to the browser.

Due to the default position and high adoption, Chrome represents a bottleneck within the Android ecosystem. With other service providers depending on access, Google has high bargaining power and the resulting gatekeeper position might also be used to extend its strong market position to other parts of the Internet value chain or industries. Many websites have to be compatible with Google's specifications if they want to be discovered by end-customers.⁵⁸⁸ At the same time, Google holds substantial control over a large majority of the global population's access technology to the Internet. This enables Google to achieve huge distribution advantages in the Internet compared to any competitor.⁵⁸⁹

Referring to the search engine market, competitors expressed three main points of criticism regarding Google's decision to auction off slots for the choice screen:

- Third-party search engine providers argue that the restrictive terms and conditions for becoming a default search engine imposed by Google do not only favour its own services (self-preferencing) but also systematically put smaller competitors at a disadvantage and hinder their discoverability to potential end-customers.
- In addition, the selected auctioning system is also considered as non-transparent and unfair to competitors, especially smaller and non-profit driven ones who lack financial resources.
- By controlling the web browser, Google can also influence if and to what extent other search engines are featured. Therefore, third-party providers must comply with Google's terms and conditions while it may simultaneously affect their business model negatively.

Google's decision to choose an auction to be included on the choice screen has several (potential) drawbacks for other search engine providers. First, all other search engines have to bid and pay fees to actually appear on the choice screen while Google Search will automatically be added as a choice. By only granting the three highest bidders⁵⁹⁰ access to the choice screen, Google limits the number of search engine alternatives and creates a scarcity and a biased picture of the search engine market on its platform, by limiting access and visibility for smaller players. That scarcity of slots might increase the level of competition on the platform, the bids and thus the auction revenues of Google. Ultimately, end-customers have fewer options to choose from.

In addition, Google unilaterally decides about the auction mechanism and the specifics of the bidding process (such as minimum bids).⁵⁹¹ Defining the auction rules and simultaneously benefiting from the revenues afterwards can create adverse incentives which may be detrimental to competitors and end-customers.

⁵⁸⁸ Kenney, M., Bearson, D., Zysman, J. (2019): *The Platform Economy Matures: Pervasive Power, Private Regulation, and Dependent Entrepreneurs*, BRIE Working Paper 2019-11, https://brie.berkeley.edu/sites/default/files/platform_economy_matures_final.pdf

⁵⁸⁹ Bassali, D. et al. (2020): *Google's Anticompetitive Practices in Mobile: Creating Monopolies to Sustain a Monopoly*, *Digital Platform Theories of Harm*, <https://som.yale.edu/sites/default/files/DTH-GoogleMobile.pdf> and <http://blairreeves.me/2019/08/20/the-browser-monopoly/>

⁵⁹⁰ <https://www.cnn.com/2020/01/09/google-android-default-search-engine-sold-to-highest-bidder-in-europe.html> and <https://blog.ecosia.org/google-android-choice-screen-auction-eu-ecosia/>

⁵⁹¹ <https://www.cnn.com/2020/01/09/google-android-default-search-engine-sold-to-highest-bidder-in-europe.html> and <https://blog.ecosia.org/google-android-choice-screen-auction-eu-ecosia/>

The general decision to hold an auction also has an impact on the market players. While larger and more profit-orientated competitors with higher financial resources are more likely to be successful in the auction and included on the choice screen, smaller and purpose-driven search engine providers are more likely to be crowded out. Thus, the whole auction process could rather benefit the already established market players while creating market barriers for new players. Such a scenario can limit the degree of competition and innovation which can also have a negative impact on end-customers.

v. Solutions and impacts

In the preceding analysis, different aspects of Google's behaviour were identified that can affect competitors' business models negatively which rely on access to Google's Chrome browser (e.g. search engine providers). Although the European Commission fined Google for illegal restrictions that substantiate its dominant position and Google implemented some required modifications in its Chrome browser, the company is still able to exercise bargaining power to the detriment of competitors and end customers.⁵⁹² In order to achieve a level playing field, different types of remedies could be deployed.

Google's gatekeeper position and leverage of its bargaining power in other areas could be restricted if Google's vertical integration was repealed. Thus the provider of an operating system and a web browser could not be allowed to offer own proprietary services on its platforms (like Google Search). However, this would represent a strong interference into the company's present business model.

A less invasive approach could encompass a functional separation of Google's business units (operating system, browser, services etc.) to prevent cross-subsidies. Thus, Google services would be treated equally to third-party services in regard to fees, display and discoverability on the platform, general terms and conditions etc. This could be complemented by interoperability obligations so third-party services can use the same degree of functionalities of Android and Chrome as Google Search.

In addition, Chrome could also publish specific additional technical standards for search engines and other web services that are accessed by browsers. If search engines and other web services comply with these rules, Chrome should not be able to favour, restrict and prohibit access to certain content, browsers' functionalities and system resources.

The web browser is essential for end-customers to be able to use some functions of the Internet, e.g. search engine queries. Some remedies specifically for the search engine market can also be highlighted, for example the number of alternatives on the choice screen could be expanded. In addition, instead of only listing the highest bidders, Chrome could add a button where end users could manually insert their preferred choice. Alternatively, instead of just featuring a limited number of search engines on the choice screen, a comprehensive list could be displayed.

Both alternatives would also supersede the auction mechanism favouring larger market players when search engines could simply apply / agree to be included on the choice screen. Also, a transparent cost-based pricing regime could be implemented that reflects the (technical) costs for Chrome to include other search engine providers on the platform.

⁵⁹² A similar example was *Microsoft Corp. v. Commission*, in which Microsoft was ordered to release a version of Microsoft Windows (operating system) without the Windows Media Player, a media application for videos, audios and images.

h. Case 7: Device Neutrality – Apple Wallet/Pay

i. What is the problem/s associated with this case?

The Apple iOS ecosystem consists of a seamless interwoven system of hardware and software. With the iPhone 6, launched in October 2014, Apple introduced Apple Pay in the US, a contactless payment method relying on a Near Field Communication (NFC) chip integrated in every iPhone that has been released since then. With Apple Pay a consumer can store the credentials of an existing credit or debit card as a digital twin in an embedded secure chip on the iPhone. Therefore, Apple acts as an intermediary allowing payment operators (e.g. banks, credit card companies) to virtualise payment cards on their end-users' devices.

Since the launch of Apple Pay 5 years ago, the coverage of the service has expanded to 60 countries worldwide and Apple is partnering with payment providers in all countries in the European Economic Area. Furthermore, the installed base of compatible iPhones in the EU and adoption of the service has grown substantially.

However, the system has also been criticised by banks and payment system providers due to its inherently closed and locked nature. Several payment providers sought access to the NFC functionality of the iPhone and the wallet of the iOS operating system, but were rejected by Apple. This case study presents evidence that Apple leveraged its control over the hardware and operating system of iPhones to maintain exclusive access to the iPhone's NFC chip, essentially excluding any competition in contactless payment services on its own platform, presenting an unambiguous case of self-preferencing and discriminatory barriers to intra-platform competition.

ii. Legal context

European Commission – Apple Pay alleged anticompetitive practices

In June 2020, the European Commission launched a proceeding⁵⁹³ to assess, under article 101 TFEU and/or 102 TFEU, the possible impact of the following on competition in mobile payments solutions:

- Apple's terms, conditions and "*other measures*" related to the integration of Apple Pay for mobile purchases (iPhones and iPads) on merchant apps and websites.
- Apple Pay is the only mobile payment solution that can access the Near Field Communication (NFC) "*tap and go*" technology that is embedded in iPhones for payments in stores.
- Apple allegedly restricts access to Apple Pay for specific products of rivals on iPhones and iPads.

Switzerland – TWINT

Previously, Apple faced an investigation by the Swiss national competition authority (NCA) over allegations that it obstructed the use of the TWINT mobile payment app on iOS devices.

TWINT is a Swiss mobile payment solution. Payments with the TWINT app are done by scanning a QR-code that appears on the screen of the point of sale (POS) terminal.

As Apple devices are set to launch Apple Pay, which uses the NFC technology, automatically when held close to a POS terminal, TWINT complained in 2017 that this disrupts a payment transaction that is underway with the TWINT app.

In 2018 Apple adjusted its Apple Pay functionality in Switzerland after complaints from local banks in order to avoid regulatory intervention by Swiss competition authorities. The chairman of Twint Søren Mose, said in that context: "We are delighted that Apple no longer

⁵⁹³ Pending Case 40452 *Apple - Mobile payments*
https://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=1_40452

wants to discriminate against its competitors in Switzerland. However, the activation of the NFC interface, as offered by Android, has not yet been achieved with this step. It would be desirable for Apple to fully open up this interface for its competitors."⁵⁹⁴

The NCA closed⁵⁹⁵ its investigation in December 2018, after Apple committed to provide the technical solution which allows suppressing Apple Pay during a payment transaction with the TWINT app.⁵⁹⁶

Netherlands – NCA market study and follow-up antitrust investigation

In addition, the 2019 market study into mobile app stores of the Dutch Authority for Consumers and Markets (ACM) identified Apple's refusal to give access to the NFC chip in its devices as a potential competition issue that may hinder the development of public and private services, including wireless payment services that compete with Apple Pay.⁵⁹⁷

Apple indicated to ACM that it would not have the incentive to discriminate unfairly (beyond security etc. reasons) against third-party apps, as it wants to have the most popular apps available on its platform so that consumers will use its devices, from which it earns the vast majority of its revenues.

Following the market study, ACM opened an investigation in April 2019 into Apple's app store practices.⁵⁹⁸ The investigation is running in parallel and in close cooperation with the European Commission's investigations (see above)⁵⁹⁹.

Australia

In contrast, in Australia the nation's big banks asked the Australian Competition & Consumer Commission (ACCC) in 2017 for permission to collectively bargain with Apple to let iPhone users make mobile payments from their own apps for "reasonable access terms". The case of Australian banks and Apple ended in a victory for Apple. The ACCC argued that digital wallets produced by tech companies could increase competition between Australian banks by making it easier for consumers to switch between card providers and limiting any 'lock-in' effect the apps by national banks may cause.⁶⁰⁰

Germany – "Lex Apple Pay"

From 1 January 2020, new Section 58a of the German Payment Services Supervisory Act (PSSA)⁶⁰¹ gives payment service providers and e-money issuers the right to access technical infrastructure that contributes to mobile and internet-based payment services in Germany,

⁵⁹⁴ Source: <https://www.finextra.com/newsarticle/33146/apple-forced-to-rewire-apple-pay-following-complaints-by-swiss-banks>

⁵⁹⁵ Swiss NCA press release of 18 December 2018 <https://www.weko.admin.ch/weko/en/home/latest-news/press-releases/nsb-news.msg-id-73448.html>

⁵⁹⁶ In a separate development, in November 2018 the Swiss NCA opened an investigation under Article 101 TFEU into a suspected collective boycott by five Swiss financial institutions of Apple Pay and Samsung Pay in favour of TWINT. <https://www.admin.ch/gov/it/pagina-iniziale/documentazione/comunicati-stampa.msg-id-72928.html>

⁵⁹⁷ ACM, *Market study into mobile app stores*, 11 April 2019, p. 82-84 <https://www.acm.nl/sites/default/files/documents/2019-04/marktstudies-appstores.pdf>

⁵⁹⁸ ACM press release of 11 April 2019 <https://www.acm.nl/en/publications/acm-launches-investigation-abuse-dominance-apple-its-app-store>

⁵⁹⁹ Interview notes, ACM, 21 August 2020

⁶⁰⁰ Source: <https://www.news.com.au/technology/gadgets/australias-big-banks-cant-work-to-boycott-apple-pay-accs-rules/news-story/a22c4dee2e27a53f8aa1d9c0bc7f1336>

⁶⁰¹ Gesetz über die Beaufsichtigung von Zahlungsdiensten (Zahlungsdienstenaufsichtsgesetz - ZAG) https://www.gesetze-im-internet.de/zag_2018/___58a.html

“without undue delay and subject to appropriate access conditions in return for appropriate remuneration”⁶⁰².

The objective of the new provision is, essentially, to increase consumer welfare through enhanced competition and gains in dynamic and allocative efficiency. The legislative materials refer to the promotion of technological innovation, which will drive competition and economic prosperity. This will concurrently increase consumer choice for payment services, including competing solutions for mobile and internet-based payments.⁶⁰³

This provision is sometimes referred to as Lex Apple Pay because its objective is widely understood to provide payment service providers access to Apple’s Near Field Communication (NFC) chip.⁶⁰⁴

In addition to NFC interfaces in mobile devices, the provision could apply, for example, to Amazon’s Alexa and Google Assistant which allegedly do not allow the initiation of payment transactions⁶⁰⁵.

Section 58a(2) PSSA sets out a *de minimis* rule that limits the scope of application to larger companies that contribute to mobile and internet-based payment services in Germany. The right of access can only be invoked if, at the time of the request:

- the undertaking’s technical infrastructure is already used by at least ten payment service providers or e-money issuers; or
- the undertaking has more than two million registered users.

The legislative materials consider the access obligation justified because the targeted undertakings are generally large gatekeeper platforms generating significant positive network effects that allow them to enter new markets, including the payment services market. These undertakings also are in a position to self-preference their own services by denying or restricting third-party access to their technical infrastructure.⁶⁰⁶

Under Section 58a(3), an access request can be refused by providing an objective justification for it, in particular if the company “*can prove that the security and integrity... are concretely endangered*”⁶⁰⁷. The provision also requires that the justification is “*comprehensible*”.

The German Savings Banks Association reportedly lobbied for a legislative measure to improve payment service providers’ position vis-à-vis Apple.⁶⁰⁸

However, in January 2020 the savings banks decided to use Apple Pay and not to seek direct access to the NFC interface through their own apps.⁶⁰⁹

⁶⁰² Unofficial translation

⁶⁰³ Ibid., p. 8

⁶⁰⁴ Franck, Jens-Uwe and Linardatos, Dimitrios, *Germany’s ‘Lex Apple Pay’: Payment Services Regulation Overtakes Competition Enforcement* (1 June 2020). *Journal of Competition Law & Practice (JECLAP)*, Forthcoming, p. 2 <https://ssrn.com/abstract=3634484>

⁶⁰⁵ Ibid., p. 3, which in footnote 7 refers to a statement by a spokesman of the German Savings Banks Association of 24 January 2020 <https://financefwd.com/de/sparkassen-apple-nfc>

⁶⁰⁶ Ibid., p. 9

⁶⁰⁷ Unofficial translation

⁶⁰⁸ Franck, Jens-Uwe and Linardatos, Dimitrios, *Germany’s ‘Lex Apple Pay’: Payment Services Regulation Overtakes Competition Enforcement* (1 June 2020). *Journal of Competition Law & Practice (JECLAP)*, Forthcoming, p. 3 <https://ssrn.com/abstract=3634484>

⁶⁰⁹ Ibid., p. 19, which in footnote 119 refers to <https://financefwd.com/de/sparkassen-apple-nfc>

When the rule was adopted, Apple told Reuters: “We are surprised at how suddenly this legislation was introduced ... We fear that the draft law could be harmful to user friendliness, data protection and the security of financial information”.⁶¹⁰

iii. Characteristics of the platform concerned

Contactless point-of-sale (POS) payments include transactions that are processed via smartphone applications, so-called “mobile wallets”. The largest providers of mobile wallets are Apple (Apple Pay), Alphabet/Google (Google Wallet) and Samsung (Samsung Pay). With mobile wallets the payment is made by a close-range contactless interaction of the smartphone app with a compatible payment terminal of the merchant. The data transfer can be made, either via Near Field Communication (NFC) or by scanning a QR code to initiate the payment. By this process a user is either triggering an online bank transfer or is using a digitalised credit or debit card (Host Card Emulation).

Therefore, Apple Pay is not a dedicated contactless payment service, but rather an intermediary service that emulates existing credit cards, stores them locally and encrypts them on each individual iOS device, which allows consumers to use the emulated credit card instead of their physical counterpart. Apple Pay is accepted by every contactless payment terminal and Apple combines the biometric authentication systems in its devices (i.e. fingerprint scanner, face geometry scanner) to increase the usability and security of the service, rendering as obsolete the need to remember PIN codes and carry around physical cards.

The encrypted credit card data is stored in the “Secure Element”, a chip within every Apple Pay-enabled iPhone that also stores the biometric information of users. The credit card information inside this chip is not uploaded to Apple’s cloud servers and therefore only stored locally on each device. Moreover, Apple uses a method called “tokenisation” to vary this information for each transaction, which increases the anonymity of customers and the likelihood of credit card fraud. By relying on the EMV Payment Tokenisation Specification⁶¹¹, the system replaces a unique credit card number with a combination of a unique device identifier and a dynamic security code that is created for every transaction. Therefore, merchants cannot create individual customer profiles or trace individual payments back to specific credit cards based on transactional data.

However, Apple as a centralised provider of this payment method could collect this information about individual users and reserves its right to do so in the Apple Pay standard agreement.⁶¹² Furthermore, Apple reserves the right to collect the following information via its Apple Pay Web API in the context of, for example, e-commerce transactions:

12.1 Consent to Collection and Use of Data.

In order to test, provide and improve Apple’s products and services, and only if You choose to use the Apple Pay Web APIs to access the Apple Pay Platform, You acknowledge that Apple and its subsidiaries and agents may be collecting, using, storing, transmitting, processing and analyzing (collectively, “Collecting”) diagnostic, technical, usage and related

⁶¹⁰ Source: https://www.reuters.com/article/us-apple-germany-apple-pay/apple-warns-of-risks-from-german-law-to-open-up-mobile-payments-idUSKBN1XP16M?feedType=RSS&feedName=technologyNews&utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+reuters%2FtechnologyNews+%28Reuters+Technology+News%29

⁶¹¹ Source: [https://en.wikipedia.org/wiki/Tokenization_\(data_security\)](https://en.wikipedia.org/wiki/Tokenization_(data_security)), Last access: 17.08.2020

⁶¹² Source: <https://www.twobirds.com/en/news/articles/2020/global/apple-pay-under-competition-law-scrutiny#:~:text=%20Apple%20Pay%20under%20Competition%20Law%20scrutiny%20,%20%20%20%20%20More%20,> Last accessed: 18.08.20

*information from the Apple Pay Platform. Some of this information will be Collected in a form that does not personally identify You. However, in some cases, Apple may need to Collect information that would personally identify You, but only if Apple has a good faith belief that such Collection is reasonably necessary to: (a) provide the Apple Pay Platform; (b) comply with legal process or request; (c) verify compliance with the terms of these Terms and Conditions; (d) prevent fraud, including investigating any potential technical issues or violations; or (e) protect the rights, property, security or safety of Apple, its developers, customers or the public as required or permitted by law. By accessing or using the Apple Pay Platform, You acknowledge and agree that Apple and its subsidiaries and agents have Your permission to Collect any and all such information and use it as set forth in this Section. Further, You agree that Apple may share the diagnostic, technical, and usage logs and information (excluding personally identifiable information) with partners and third-party developers for purposes of allowing them to improve their products and services that operate on or in connection with Apple-branded products.*⁶¹³

In contrast, Apple communicated to its customers: "We are not in the business of collecting your data... Apple doesn't know what you bought, where you bought it, or how much you paid. The transaction is between you, the merchant, and the bank."⁶¹⁴ Furthermore, Apple representatives stated that "During setup Apple Pay requires banks to verify each and every card" and that "The bank then determines and approves whether a card can be added to Apple Pay."⁶¹⁵ However, Apple determines first whether a Bank is eligible to participate in Apple Pay.

Market development

Apple established itself as a gatekeeper between its customers and their banks, as well as merchants. Nevertheless, Apple Pay shows a steep growth among the global iPhone user base.

⁶¹³ Source: <https://www.shopify.com/legal/apple-pay>, Last accessed: 21.08.20

⁶¹⁴ Source: <https://www.lexology.com/library/detail.aspx?g=e70bbb83-cc63-4c74-8dc5-f883e686cfd2>, Last accessed 17.08.2020

⁶¹⁵ Source: <https://money.cnn.com/2015/03/18/technology/apple-pay-fraud/index.html>. Last accessed: 18.08.2020

Figure 154. Number of Apple Pay users worldwide⁶¹⁶

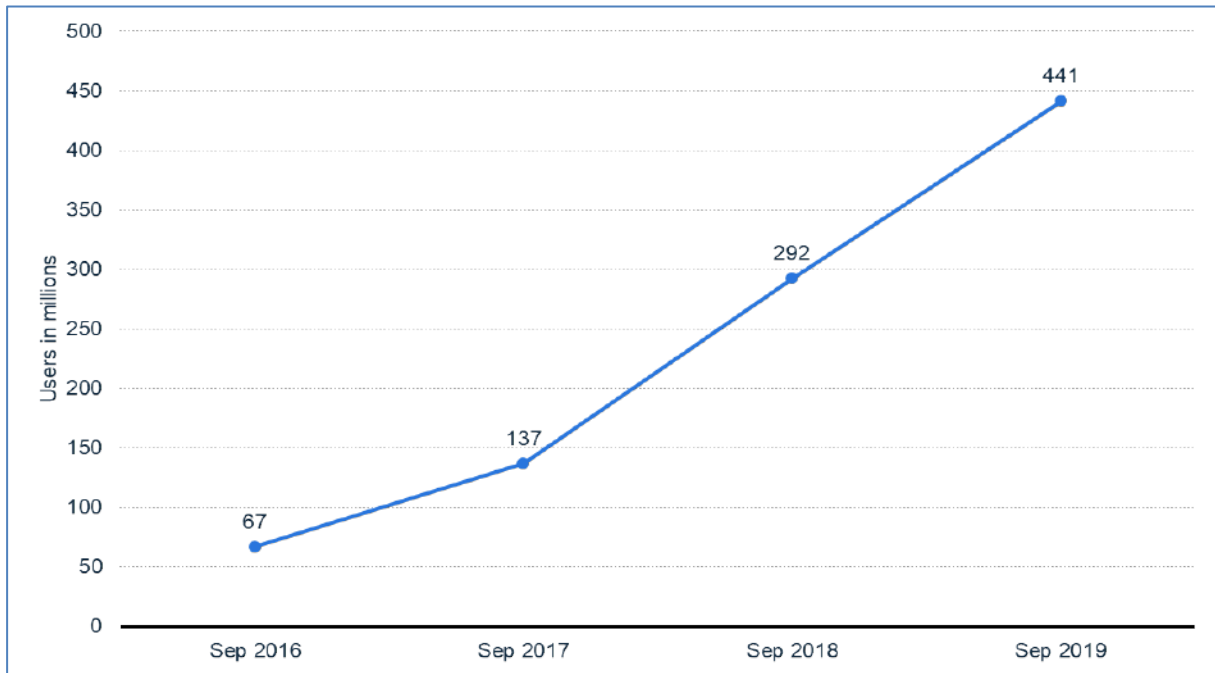
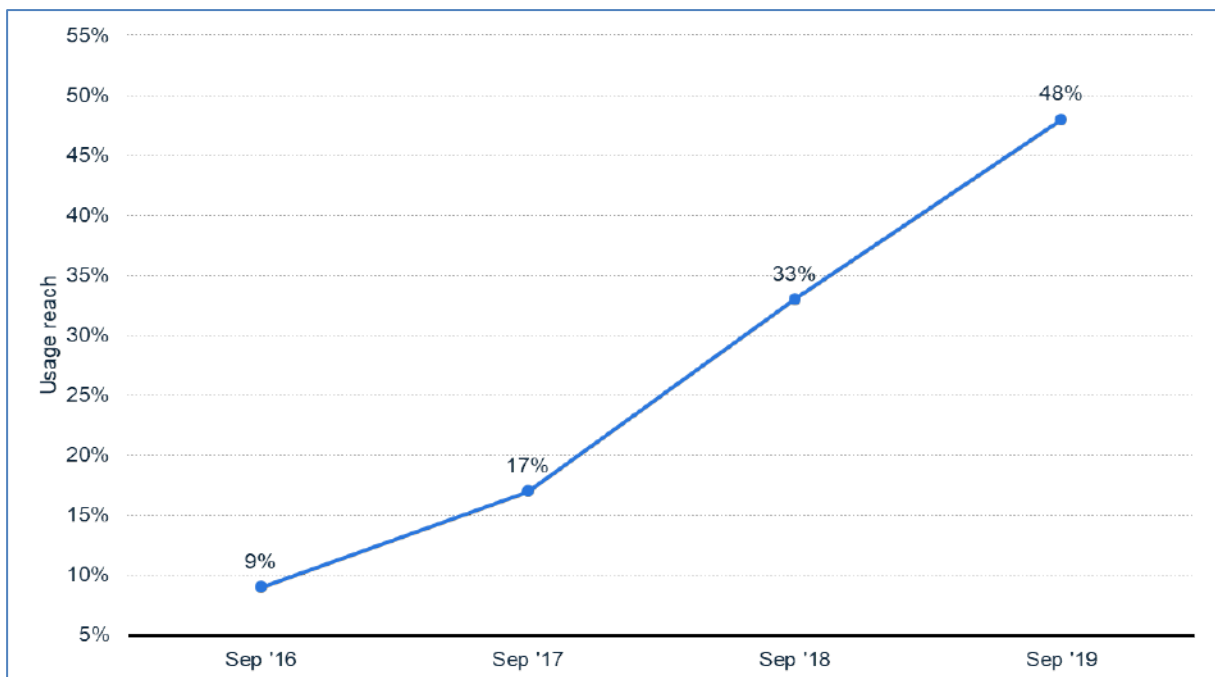


Figure 155. Apple Pay usage reach among the global iPhone user base⁶¹⁷

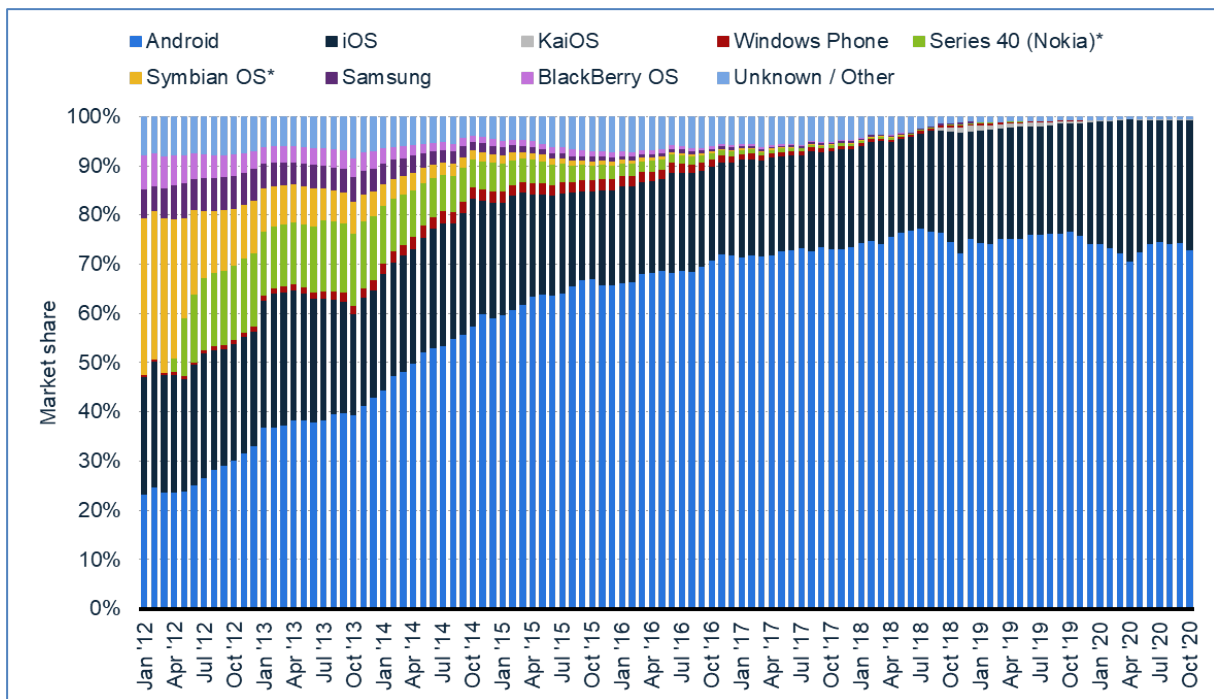


⁶¹⁶ Statista (2020): Financial Services, <https://www.statista.com/statistics/911914/number-apple-pay-users/>.

⁶¹⁷ Statista (2020): Financial Services, <https://www.statista.com/statistics/911930/apple-pay-usage-reach-iphone-user-base/>

Currently 3.5 billion users around the world own a smartphone⁶¹⁸. Over time, the rather diverse mobile operating system landscape has developed towards a duopoly shared by Apple (iOS) and Alphabet/Google (Android). Apple currently holds ca. 25% of the global smartphone operating system market in 2020. The share of iOS among smartphone devices in the European Union does not differ significantly from Apple’s global share. Despite the fact that smartphone penetration varies in EU countries it does not exceed 79% of the population in any one Member State (Germany).⁶¹⁹ This implies that, currently in each European country, on average less than 10% of the population have access to Apple Pay, with the share potentially rising with overall smartphone penetration and iOS adoption in the future.

Figure 156. Mobile operating system market share worldwide⁶²⁰

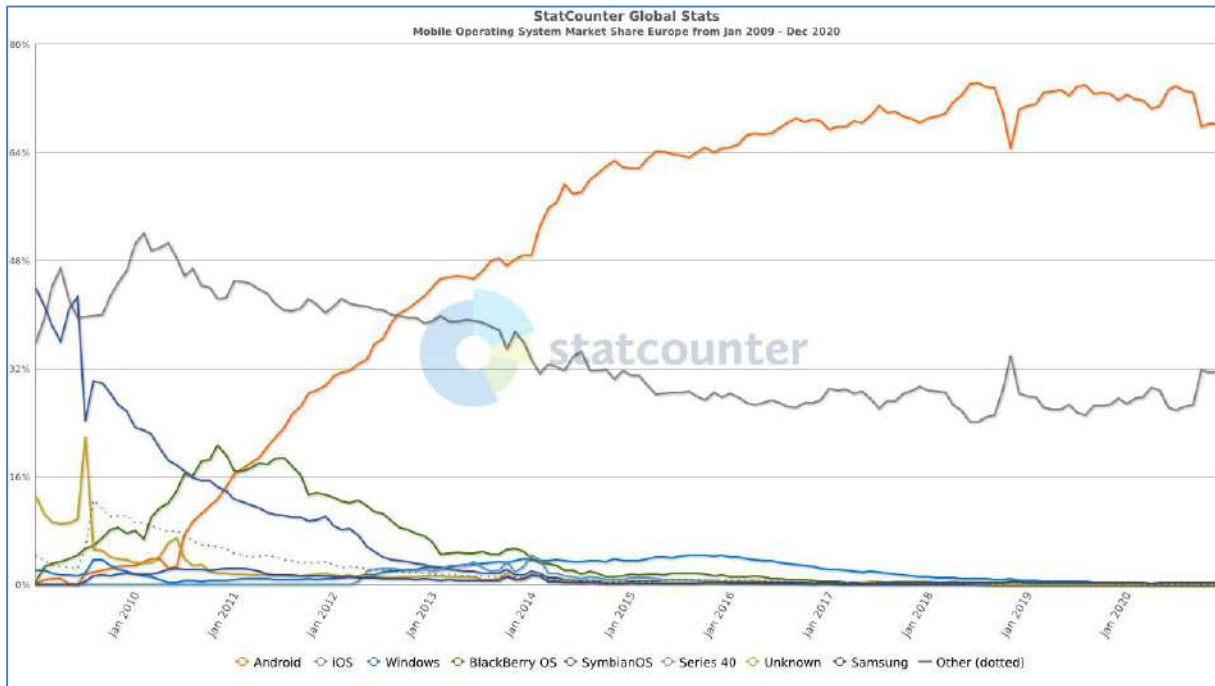


⁶¹⁸ Source: <https://www.statista.com/statistics/330695/number-of-smartphone-users-worldwide/>, Last accessed: 19.08.20

⁶¹⁹ Source: <https://www.worldatlas.com/articles/countries-by-smartphone-penetration.html>, Last accessed: 20.08.20

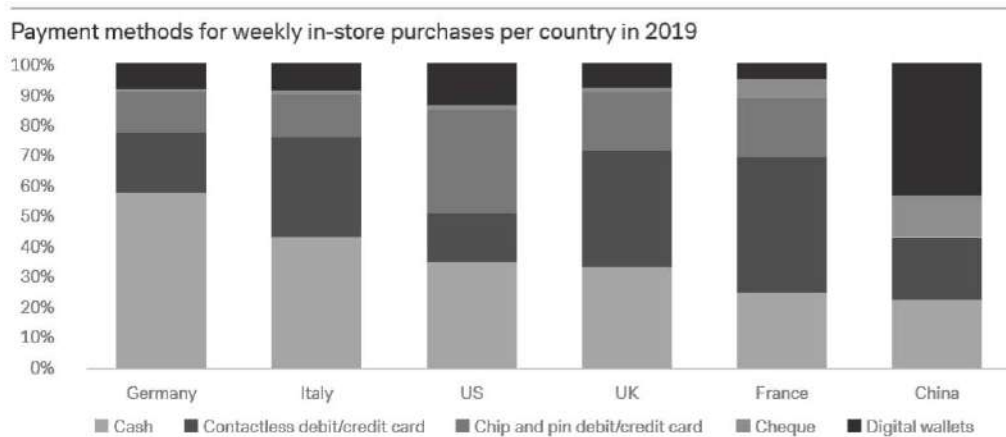
⁶²⁰ Statista (2020), Telecommunications, <https://www.statista.com/statistics/272698/global-market-share-held-by-mobile-operating-systems-since-2009/>.

Figure 157. Mobile operating system market share Europe 2009-2020⁶²¹



Moreover, there is an interesting and important difference between the US, China and European member states. While in China more in-store purchases are processed via mobile wallets than via contactless (physical) debit and credit cards and the adoption of both methods is rather balanced in the US, consumers in EU countries unambiguously prefer contactless physical cards compared to mobile digital wallets.

Figure 158. Payment methods for weekly in-store purchases per country in 2019



Source: Deutsche Bank dbDIG. Note: Chip and pin (not contactless enabled) debit/ credit card; Contactless (with chip and pin) debit/ credit card.

Source: Deutsche Bank dbDIG

Overall, the global transaction volume of Apple Pay exceeded PayPal's volume with 3 billion transactions in Q3 2019. Moreover, Apple Pay's transaction volume is growing four times

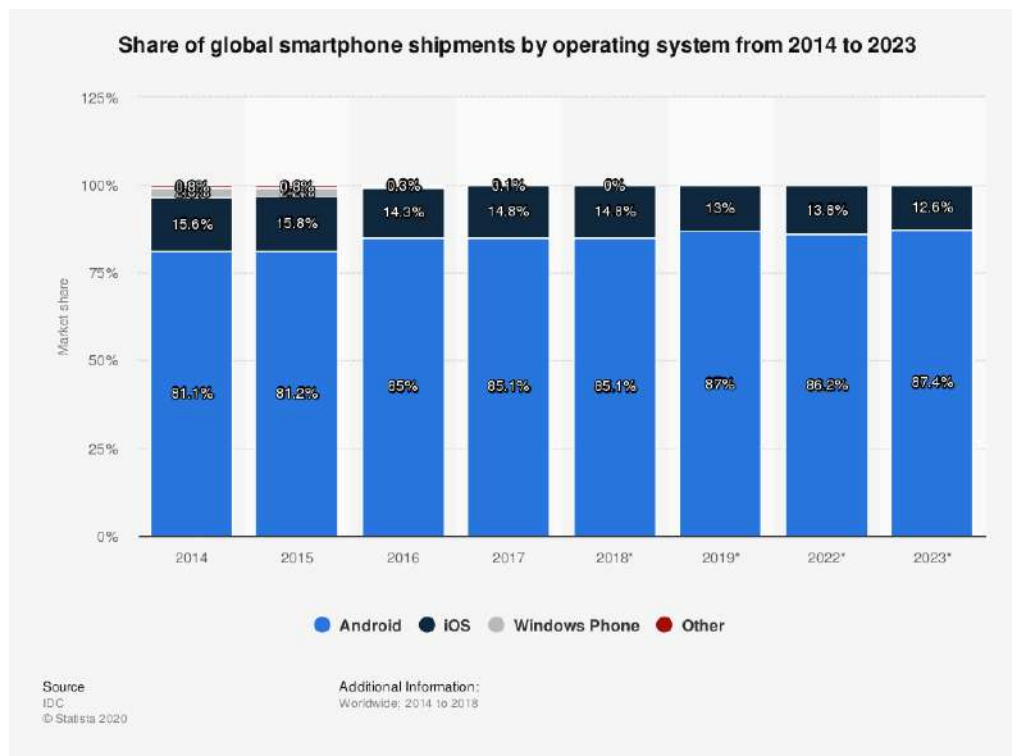
⁶²¹ Statcounter (2020): <https://gs.statcounter.com/os-market-share/mobile/europe/#monthly-200901-202012>.

faster than PayPal's, with PayPal's transaction volume in Q3 2019 being approximately 3.1 billion and growing 25% annually.⁶²²

Business model

With the introduction of Apple Pay, Apple established itself as a Trusted Service Manager (TSM), acting as an intermediary between customers, banks and merchants. In contrast to other contactless payment solutions provided by, for example, network operators, the secure element of Apple Pay is part of an iPhone's hardware and not a removable or exchangeable element (e.g. SIM-card). The physical bundle of the smartphone and the secure element chip in the device creates the foundation of the gatekeeping power of Apple in the contactless mobile payment segment. Apple retains exclusive access to the NFC chip in every iPhone. The existing installed base of iPhones therefore further increases the bargaining power of Apple towards banks and credit card companies, despite its gradually declining past and forecasted share in global smartphone shipments.

Figure 159. Share of global smartphone shipments by operating system from 2014 to 2023



Source: Deutsche Bank dbDIG

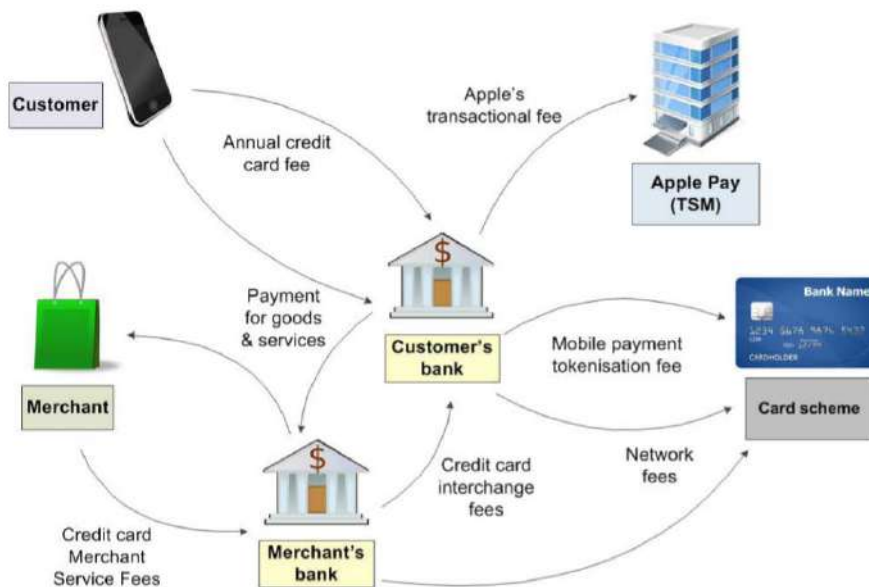
Apple generates revenues from Apple Pay by imposing service fees on participating banks each time an emulated credit card is used via Apple Pay. These fees are often a proportion of the “interchange fees” which are retained by banks issuing the card. However, reportedly in some countries Apple is collecting a credit card transactional fee from financial institutions on top.⁶²³ Furthermore, credit card companies can charge banks extra for the above exemplified tokenisation of transactions.

⁶²² Source: <https://www.businessinsider.com/apple-pay-transaction-volume-and-revenue-doubled-2019-11?r=DE&IR=T>, Last accessed: 21.08.20

⁶²³Source: <http://www.wigleylaw.com/assets/Uploads/How-does-Apple-make-money-from-Apple-Pay.pdf>, Last accessed: 24.08.20

In contrast, Apple Pay users incur no additional fees when using the intermediation service since the additional transaction costs imposed by Apple on financial institutions cannot be passed on to customers under Apple's contractual arrangements.⁶²⁴

Figure 160. Revenue streams of the Apple Pay financial service



Source: Wigleylaw (<http://www.wigleylaw.com/assets/Uploads/How-does-Apple-make-money-from-Apple-Pay.pdf#page=4>)

Apple's fees are reportedly a 0.15% cut of the value of purchases in the US.⁶²⁵ Due to EU Regulation (EU) 2015/751, interchange fees in the European Economic Area are capped at 0.3% for personal credit cards and 0.2% for personal debit cards (effective from 8 June 2015). The actual average cut of the value of purchases that Apple receives in the EU is unknown and presumably varies between banks depending on their bargaining power.

Banks participating in Apple Pay hope to increase the share of credit payments that were previously handled without credit (e.g. cash), allowing them to recoup the additional transaction fees from consumers (i.e. interest) and/or increase customer loyalty and meet the expectations of tech-savvy customers in a highly competitive financial market.

iv. Evidence of the problem and associated harms

Apple does not allow alternative NFC payment services on their devices by restricting access to its AppStore for alternative payment providers. While other smartphone manufacturers (e.g. Samsung) that rely on the Android operating system do not restrict access to the NFC chip for alternative payment providers, Apple reserves exclusive access to NFC on the iPhone (for payments). The barriers to entry for alternative contactless payment providers in the iOS ecosystem are:

- no access to the secure element (SE) in iPhones and no documentation of the in the SE stored data (e.g. Device Account Number) elsewhere; and
- no access to the exclusive software distribution channel on iPhones/iOS (i.e. AppStore) in case the application uses the NFC chip for financial services.

⁶²⁴ Source: <http://www.wigleylaw.com/assets/Uploads/How-does-Apple-make-money-from-Apple-Pay.pdf>, Last accessed: 24.08.20

⁶²⁵ Source: https://www.theregister.com/2014/09/13/apple_to_get_15_cents_for_every_100_dollar_payment_on_its_pay_service_says_ft, Last accessed: 18.08.2020

Apple often cites security concerns for not granting access to NFC for financial applications. However, Apple grants access to the NFC chip for public transportation services, official ID-cards and car manufacturers for contactless key functionalities.

Furthermore, banks are being prevented from passing on Apple Pay fees to consumers, affecting their ability to compete effectively with Apple Pay even on the grounds of all contactless payment cards.

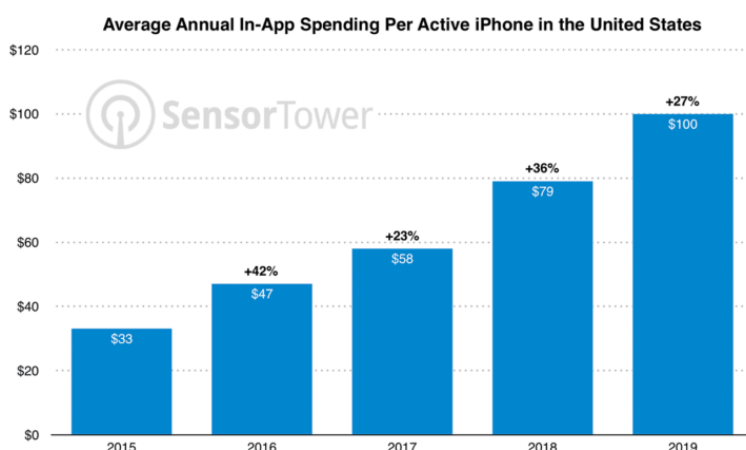
Apple could not have established itself successfully in the mobile payment market if it would have allowed alternative mobile digital wallets on its devices to access the NFC chip from the start. Furthermore, by dictating that its fees cannot be passed on to consumers, Apple further distorted the competition between physical contactless payment cards and mobile digital wallets. If banks would have been allowed to leverage Apple's mobile operating system to its full extent, banks, credit card companies and telecommunications providers would (have) encourage(d) consumers to use alternative wallet applications that do not require a share of the interchange fees to be handed over to Apple (i.e. the manufacturer of the hardware).

One could argue that no financial provider is forced to offer its services via Apple Pay and could issue regular (contactless) physical cards instead. However, Apple's ecosystem of hardware, operating system and services is rather special and very different from its competitors.

Other smartphone manufacturers (e.g. Samsung) and especially the second mobile operating system provider (i.e. Alphabet[Google]/Android) provide digital wallets as well, which are not restricting access to the NFC chip in their respective devices. Consequently, iPhone users might expect their financial provider to be available on their iOS device as well, not being aware of the specific terms and conditions of Apple Pay which their individual financial providers are facing. Therefore, consumer expectations are working in favour of Apple and can even increase the bargaining power of Apple in negotiations with banks.

Furthermore, the likelihood of consumers switching their financial provider vs. their smartphone ecosystem becomes an important factor. Banking and credit card services are rather homogeneous goods, where consumers in the European Union do not face a severe lock-in or high switching-costs. In contrast, Apple argues in favour of its unique features and distinct hardware. Furthermore, smartphone ecosystems (iOS / Android) are usually tied to personalised accounts that consumers use to pay for applications in the respective stores of their operating system provider (AppStore / PlayStore). Over time, consumers can accumulate a rather large catalogue of applications which is tied to their personalised account in one of the ecosystems.

Figure 161. Average annual in-app spending per active iPhone in the US



Figures based on U.S. consumer spending in iPhone apps for Jan 1, 2015 through Dec. 31, 2019. Source: Sensor Tower Store Intelligence. Includes premium apps and in-app purchase revenue (IAP).

Source: SensorTower⁶²⁶

Therefore, the longer a consumer uses devices in a specific ecosystem, the more purchases the consumer will have made which are not transferrable to another ecosystem.⁶²⁷ In addition, Apple provides a plethora of complementary services and functionalities that are not available on other systems or provide exclusive features only to iOS users (e.g. iCloud, Apple Arcade, HomeKit, Accessories) that can lock-in consumers even further into the ecosystem. Therefore, one can draw the conclusion that Apple customers are less likely to switch to another smartphone manufacturer than potentially switching their financial provider. This conclusion for the EU is in contrast to the conclusions drawn by the Australian ACCC, which assumed that mobile digital wallets could increase competition between large national banks.

Independent from the argument about switching-costs, multihoming at several financial providers is rather common in the EU. The number of payment cards issued in 2017 (812 million) represented around 1.6 payment cards per EU inhabitant, with the number among adults actually being higher.⁶²⁸ Therefore, carrying around, for example, several credit cards in a physical wallet, is rather common compared to owning and carrying around multiple smartphones. In fact, smartphone users consider their devices as crucial technology for their daily lives. The following statistics – based on a survey among 1,832 adults in the United Kingdom – show that especially younger consumers are worried if they would be separated from their smartphone for a day, while almost half of respondents would carry their smartphone to another room if they move around their home.

⁶²⁶ Does not cover payments made using retail apps, ride-sharing apps such as Uber, or any other payments that aren't processed via Apple and the App Store.

⁶²⁷ Obviously this holds only true for purchases and not for service subscriptions (e.g. streaming audio / video), which are usable on other devices. However, according to SensorTower more than 70% of Apple's AppStore revenues in 2018 stemmed from mobile gaming applications (Source: <https://s3.amazonaws.com/sensortower-itunes/reports/sensor-tower-2019-2023-market-forecast-condensed.pdf>, Last accessed: 21.08.20)

⁶²⁸ Source: <https://www.ecb.europa.eu/press/pr/stats/paysec/html/ecb.pis2017.en.html> /, Last accessed: 24.08.20

Figure 162. Indication of the essentiality of smartphones – Part I⁶²⁹

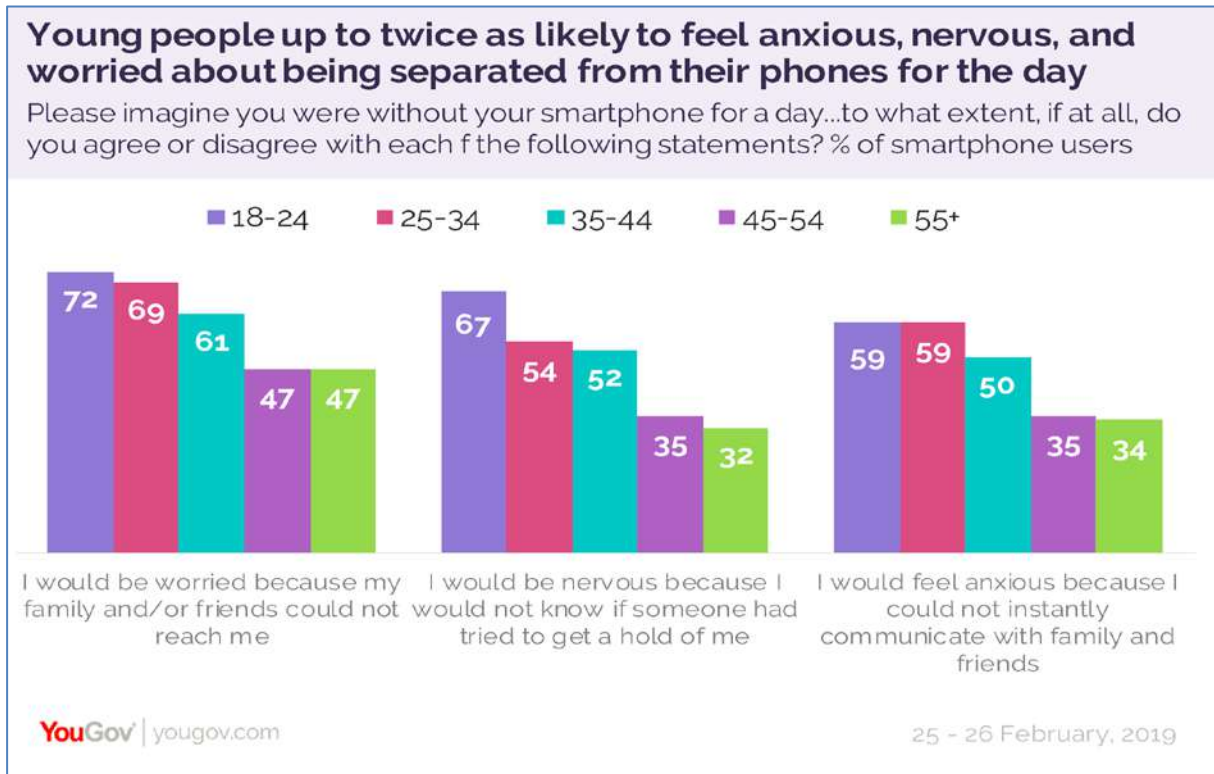
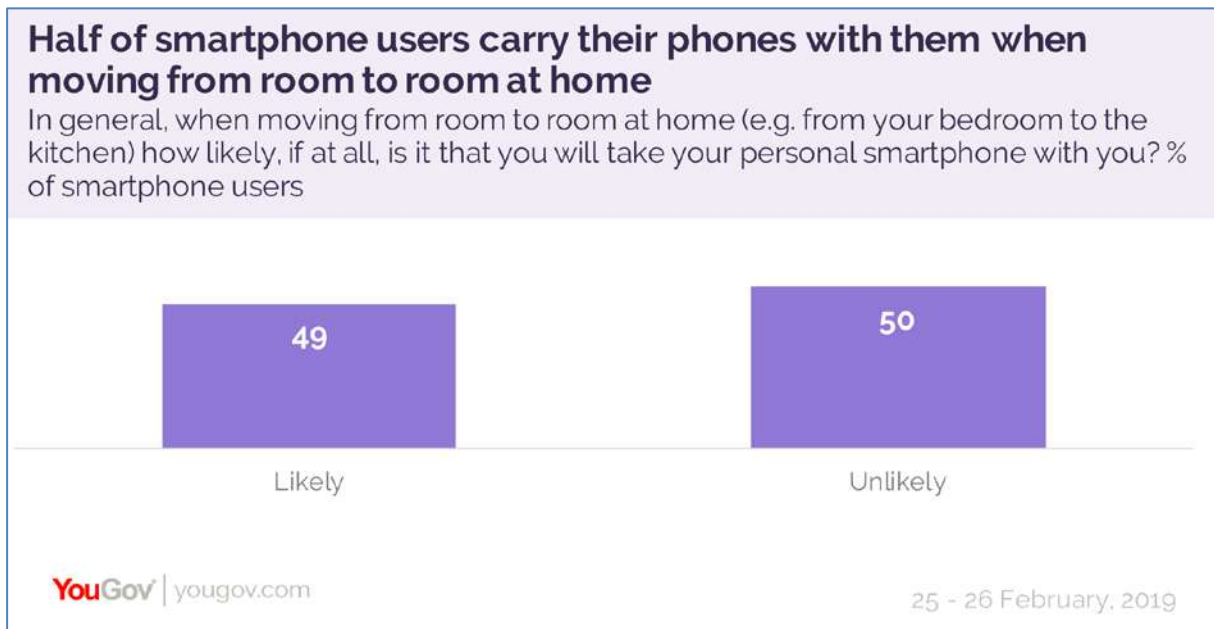


Figure 163. Indication of the essentiality of smartphones – Part II⁶³⁰



Transaction fees for Apple Pay are individually determined in negotiations between Apple and individual banks. In this process, smaller financial providers might expect a first-mover advantage of adopting Apple Pay, while larger financial institutions might be in a better

⁶²⁹ YouGov (2019), <https://yougov.co.uk/topics/technology/articles-reports/2019/03/08/could-you-live-without-your-smartphone>.

⁶³⁰ YouGov (2019), <https://yougov.co.uk/topics/technology/articles-reports/2019/03/08/could-you-live-without-your-smartphone>.

position to negotiate favourable terms with Apple. Nevertheless, if Apple Pay has been adopted in a market of a European country, national competitors might feel pressured to come to an agreement with Apple to compete with their rivals for iPhone customers. This can create a domino-effect in markets after the first financial institution made an agreement with Apple in a specific country.

In Germany, Apple launched ApplePay in December 2018 with support of the following financial institutions: Deutsche Bank, HypoVereinsbank, Fidor, Hanseatic Bank, Comdirect and O2 Banking. Furthermore, Apple partnered with fintechs and direct banks like N26, boon, bunq, Vimpay and Edenred, as well as the large credit card companies American Express, Visa and Mastercard.⁶³¹ Since its launch in December 2018, the number of supported financial service providers has increased from initially 15 providers to 47 in August 2020.

v. Solutions and impacts

Despite the fact that Apple's share of the mobile operating system market is only approximately 25% in the European Union, it nevertheless has 100% control over its share of the mobile operating system market. Therefore, Apple's technology platform and, specifically, the AppStore, can be regarded as a market in and of itself.

Self-preferencing implies that the provider of a technological bottleneck grants itself more favourable terms and conditions than its competitors on its own platform. More specifically, Apple reserves itself an exclusive right to use the NFC chip for its contactless payment service while, at the same time, preventing access to NFC for other financial providers. Apple is in a dual-role as provider of its software marketplace (AppStore) and provider of a contactless payment service (Apple Pay) and therefore has an undeniable interest to benefit its own payment service and to foster its further adoption and diffusion. Furthermore, exclusive access to NFC on the iPhone is not only an issue in the context of intra-platform competition, but also in the context of conglomerate market power and inter-platform competition.

In contrast to financial institutions, Apple has a significant foothold in the smartphone market, which it can leverage to enter the contactless payment sector. The technological bottleneck in form of the restricted NFC functionality in iPhones is a crucial building block to transfer its leverage from the mobile operating system market to financial markets.

Opening the NFC functionality on smartphones (including Apple's iPhones) is technically feasible, otherwise Android smartphones could not provide this feature to other financial providers today and Apple could not provide NFC access for other purposes on its own platform (e.g. wireless car keys). The German approach to opening the NFC functionality on smartphones would demand that technology companies provide access to the functionality of their devices under reasonable conditions. It remains an open question if these conditions and the cost of creating a suitable alternative payment application for iOS could be more lucrative for banks and financial providers than accepting Apple's existing terms and conditions for Apple Pay. Moreover, the existing draft would allow a technology provider to block access if it can credibly document and prove that the security and integrity of the underlying infrastructure (i.e. NFC/Secure Enclave) would be compromised by granting access.

It remains questionable whether Apple could credibly prove that the system would indeed be compromised by further granting access to its proprietary technologies. If the system is currently safe and cannot easily be abused, granting access to additional payment providers following the same security guidelines and software design principles as Apple should not decrease the security of the overall system.

⁶³¹ Source: <https://www.apple.com/de/newsroom/2018/12/apple-pay-launches-in-germany/#:~:text=Apple%20Pay%20startet%20in%20Deutschland.%20Mit%20Apple%20Pay,ihr%20Ger%C3%A4t%20kaufen%20oder%20es%20zu%20Wallet%20hinzuf%C3%BCgen>.

Overall, the very low adoption of mobile digital wallets in the European Union shows that consumers could benefit from additional options in the contactless payment sector, as adoption of similar systems in the US and China show far higher adoption rates.

At a higher level, regulators have to answer the question if the decision of a consumer for a smartphone (or mobile operating system) should determine its choice of payment solutions that work together with its mobile digital wallet. Smartphones have become an ubiquitous commodity that has become a central technology of consumers in all age groups across the European Union. Currently technology providers that sell these devices extend their grip on functionalities and features far beyond the time of sale to consumers. Since consumers expect from physical wallets the ability to store any credit or debit card without exception, it remains questionable why access to a virtual wallet should be restricted by the provider of the device itself.

i. Case 8: Digital ID – Facebook and Google

i. What is the problem/s associated with this case?

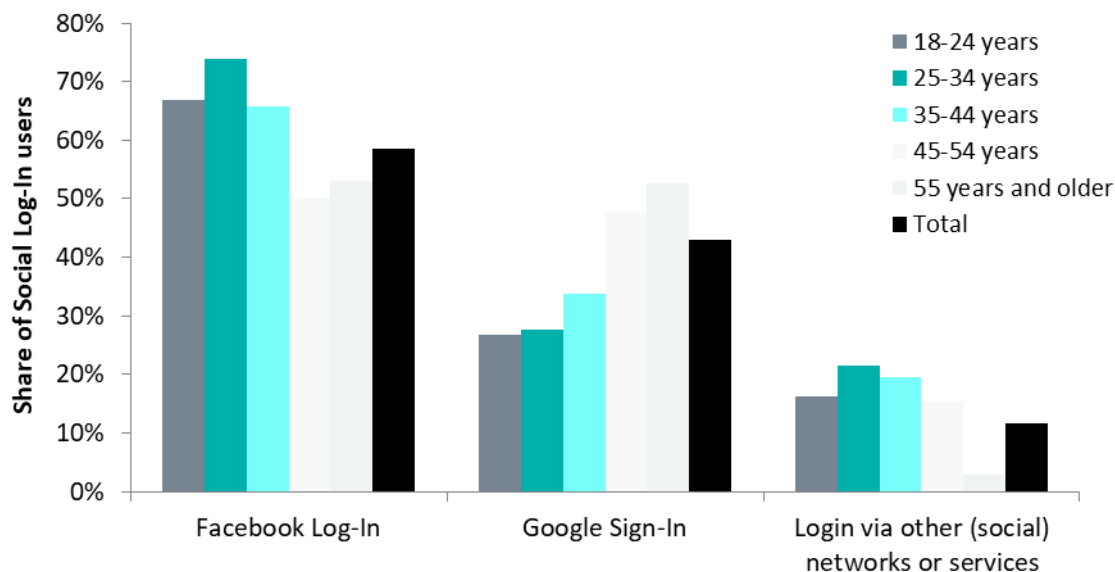
Creating a user account is a basic requirement for many digital services to be able to use them to their full extent. For users, the most common procedure is to create a user account and to remember the relevant login data. However, this approach becomes increasingly complicated as the number of various digital identities or user accounts being used rises. Digital platform providers such as Facebook and Google allow unaffiliated websites to authenticate users through a shared login (a so-called Social Log-In). Those services aim to reduce the number of login data for different digital services and to simplify the registration process for new services.

Two of the most commonly used Social Log-Ins are “Facebook Log-In” and “Google Sign-In”. As stated above, consumers are able to login to an unaffiliated websites or application with their identifying Facebook or Google registration data. In addition, the user can transfer additional personal data to the unaffiliated websites or application, so that he/she does not have to create another user profile when registering for a new service.

In 2015, both services already experienced the highest level of usage among all Social Log-In options.⁶³² More recent data from Germany shows that Facebook and Google are still leading the Social Log-In market (see Figure 164).

⁶³² <https://adage.com/article/digital/facebook-owns-social-login-scene-google-s-creeping/302407> [accessed at 17.08.2020].

Figure 164. Social Log-In market shares - Germany (2019)



Sources: Adopted from Wiewiorra, L; Liebe, A.; Taş, S. (2020). „Die wettbewerbliche Bedeutung von Single-Sign-On- bzw. Login-Diensten und ihre Relevanz für daten- basierte Geschäftsmodelle sowie den Datenschutz“. Discussion paper, No. 462, WIK: Bad Honnef.

Although most consumers value aspects such as security as well as reliability when choosing a registration procedure, a comfortable registration process is also of great importance. In general, registrations should be quick, easy, and convenient. According to a study conducted by Wiewiorra, Liebe & Taş (2020)⁶³³, doubts regarding the security of Social Log-In solutions is the main reason for many consumers not to login to an online application, service, or website via Facebook, Google or other (social) networks. Sun et al. (2013)⁶³⁴ found similar results. The authors conclude that "current implementations of web SSO solutions impose a cognitive burden on web users, and raise significant security and privacy concerns. Moreover, web users do not perceive an urgent need for SSO, and many would only use a web SSO solution on RP websites that are familiar or trustworthy."⁶³⁵

Even among users of Social Log-Ins, few are confident of their security. For users, the security aspects are generally no reason to use a Social Log-In. Instead, the service is used for its simplicity. Users seem to put their security concerns aside for an uncomplicated, fast, and simple registration procedure.⁶³⁶ Gafni & Nissim (2014) found similar results. The authors conclude that "Individuals who actually use Social Log-In to access into relying Websites, [...] are less inhibited by the security and privacy factors than those who do not

⁶³³ Wiewiorra, L; Liebe, A.; Taş, S. (2020). „Die wettbewerbliche Bedeutung von Single-Sign-On- bzw. Login-Diensten und ihre Relevanz für daten- basierte Geschäftsmodelle sowie den Datenschutz“. Discussion paper, No. 462, WIK: Bad Honnef.

⁶³⁴ Sun, S.; Pospisil, E.; Muslukhov, I.; Dindar, N. (2013). "A Investigating User's Perspective of Web Single Sign-On: Conceptual Gaps, Alternative Design and Acceptance Model." ACM Trans. On Internet Technology 13 (1), 2: 1-2: 35.

⁶³⁵ Sun, S.; Pospisil, E.; Muslukhov, I.; Dindar, N. (2013). "A Investigating User's Perspective of Web Single Sign-On: Conceptual Gaps, Alternative Design and Acceptance Model." ACM Trans. On Internet Technology 13 (1), 2: 1-2: 35, p.32.

⁶³⁶ Wiewiorra, L; Liebe, A.; Taş, S. (2020). „Die wettbewerbliche Bedeutung von Single-Sign-On- bzw. Login-Diensten und ihre Relevanz für daten- basierte Geschäftsmodelle sowie den Datenschutz“. Discussion paper, No. 462, WIK: Bad Honnef.

use the mechanism. [...] they appreciate the familiarity and convenience factor more than those who do not use it.”⁶³⁷

However, these digital identity services are much more than just a simple solution to aid user convenience. Content or service providers implementing Social Log-Ins usually receive demographic and behavioural data that can help them improve the user experience. The following table contains some of the most important data that Social Log-In providers, including Google and Facebook, provide to third-party websites upon a user’s agreement.

Figure 165. Data access options of different Social Log-Ins

Facebook Log in	Twitter	Google	LinkedIn	Yahoo
First Name	First Name	First Name	First Name	First Name
Last Name	Last Name	Last Name	Last Name	Last Name
Nickname	Nickname	Nickname	Nickname	Nickname
Email Address	Country	Email Address	Email Address	Email Address
Birthday	Profile Photo	Age	State	Age
Gender	Location	Birthday	Country	Birthday
City	Follower Info	Gender	Profile Photo	Gender
State		City	Interests	Country
Country		Profile Photo	Languages	Profile Photo
Location		Education	Address	Interests
Profile Photo		Work History	Phone	Contacts
Likes		Locale	Education	Friends
Languages		Friend Info	Honors	
Education		Contacts	Publications	
Work History			Certifications	
Religion			Bio	
Political View			Industry	
Relationships			Work History	
Friends			Skills	
Friend Info			Favorites	
			Connections	

Sources: <https://de.slideshare.net/Gigya/social-login-101-free-ebook> [accessed at 20.08.2020].

In addition, Social Log-In providers are able to track user activity across multiple unaffiliated websites and apps. With regard to this, the German NCA states the following: by integrating the Facebook Log-In, “Facebook receives information from third-party websites and apps about which websites/apps a Facebook user registers with and how the user uses each website/app. [...] In addition, further data is collected. This includes ‘Error Information’, which includes the user IDs of people logged into Facebook. According to Facebook, the company also receives the login information which users enter directly and manually - without using the Facebook Log-In - on the website of the provider who has the Facebook Log-In embedded.”⁶³⁸ This additional data helps Social Log-In providers to expand their own existing database and also to obtain information on the user base of their competitors and other parts of the Internet ecosystem.⁶³⁹

As a result, consumers not only lose control over their own data without awareness, but those platforms also gain an immense competitive advantage over companies operating in the same business segment by getting insights into their business and installed base. Large

⁶³⁷ Gafni, R., & Nissim, D. (2014). To social login or not login? - Exploring factors affecting the decision. *Issues in Informing Science and Information Technol-ogy*, 11, 57-72, p. 72.

⁶³⁸ Bundeskartellamt, Case B6-22/16 against Facebook, Exploitative business terms pursuant to Section 19(1) GWB for inadequate data processing, para. 143.

⁶³⁹ See argumentation in Bundeskartellamt, Case B6-22/16 against Facebook, Exploitative business terms pursuant to Section 19(1) GWB for inadequate data processing, para. 476.

platforms are already accused of collecting data from competitors to their own advantage; Social Log-Ins are just another way to strengthen their positions in the market and become indispensable for consumers and businesses.

ii. Legal context

In June 2020, the German Federal Court of Justice ruled⁶⁴⁰ in an interim proceeding that, pending Facebook's appeal, the German national competition authority (NCA) can enforce its February 2019 antitrust decision⁶⁴¹ by requiring the social media company to either obtain voluntary consent from its users for the extensive collection and combination of their data from several sources, or substantially limit the processing of such data.

Facebook's terms and conditions oblige users to accept that it collects their data not only when they use the Facebook website, but also on:

- other websites/services owned by Facebook – Instagram, Masquerade, Oculus and WhatsApp; and
- third-party websites with embedded Facebook application programming interfaces (APIs), including the Facebook login option.

The data that is collected from these sources is merged with the data generated by the user's Facebook account.

Based on a preliminary assessment, the Federal Court of Justice concluded that:

"There are no serious doubts about Facebook's dominant position in the German market for social networks or that Facebook is abusing this dominant position with the terms of use prohibited by the [NCA]."

The court considered that the decisive factor in this case is not whether Facebook's terms and conditions violate the GDPR⁶⁴², but rather that they do not give users the choice between:

opting for a more personalised user experience, which is "associated with a potentially unlimited access" by Facebook to even their "off-Facebook" internet activity; and only agreeing to personalisation based on the data that they themselves disclose on the Facebook website.

In addition to restricting users' personal autonomy and informational self-determination (rights protected by the GDPR), this lack of choice can also be seen as an exploitative abuse of dominance⁶⁴³ under competition law.

⁶⁴⁰ Judgment of 23 June 2020 in Case KVR 69/19
<https://www.bundesgerichtshof.de/SharedDocs/Pressemitteilungen/DE/2020/2020080.html>

⁶⁴¹ Decision of 6 February 2019 in Case B6-22/16
<https://www.bundeskartellamt.de/SharedDocs/Entscheidung/DE/Entscheidungen/Missbrauchsaufsicht/2019/B6-22-16.html>

⁶⁴² According to the NCA's appealed decision, Facebook's data processing policy outside its social network did not comply with the GDPR: (1) Facebook did not obtain its users' effective consent for its broad data processing because the provision of the social network service on Facebook.com was made subject to this consent. (2) Since Facebook already collects data within its social network, data processing was not required for the performance of the contract (Article 6 of the GDPR): "Neither the provision of the social network nor the monetisation of the network by personalised advertising requires the processing of data from third sources". (3) Overall, Facebook's legitimate interest in data processing does not outweigh the interests and reasonable expectations of the users, especially as Facebook's market power allows it to impose its terms.

⁶⁴³ According to the NCA's appealed decision, the damage caused by Facebook's exploitative abuse "lies in a loss of control" by users of their personal data. The fact that users cannot avoid the combination of their data "also violates the constitutionally protected right to informational self-

This is because it stems from a lack of competition and the presence of switching barriers in the social network market.

In this regard, the court cited the NCA's finding that a considerable proportion of private Facebook users would like to provide less personal data. If competition in the market functioned properly, users would be given this choice.

In addition to exploitation, the court also saw a likely exclusionary effect⁶⁴⁴ in the social network and online advertising markets, both of which are characterised by network effects and the importance of data.

The court explained that:

“Facebook’s access to a considerably larger database further reinforces the already pronounced “lock-in” effects. In addition, this larger database improves the possibilities of financing the social network with the proceeds from advertising contracts, which also depend on the scope and quality of the available data. Finally, because of the negative effects on competition for advertising contracts, an impairment of the market for online advertising cannot be ruled out.”

Contrary to what the lower court suggested in the interim decision proceedings, the Federal Court of Justice did not consider it necessary to define a separate online advertising market in order to find competitive harm in that market.

Facebook's appeal against the NCA's decision is still pending before the Düsseldorf Higher Regional Court, and the losing party in this instance can still appeal to the Federal Court of Justice.

iii. Characteristics of the platform concerned

Facebook and Google rank among the largest digital platform providers in the world and dominate the respective market segments in which they operate.

Google

Google launched as a search engine in the mid-late 1990s. Founders Larry Page and Sergey Brin built the search engine (initially called BackRub) in 1996. Two years later, in 1998, Google Inc. was founded. The Google's search engine is currently the most dominant player on the market – in Europe and globally.⁶⁴⁵

In addition to its search engine, the company provides more than 100 services for consumers, developers, and companies from a diverse range of domains like communication, entertainment, cloud services, software, hardware, operating systems, web browser, advertisement, analytics, etc.⁶⁴⁶

In many of these domains, Google is one of the main players. For instance, Google's web browser Chrome is leading the web browser market with a market share of 66% globally and

determination”. As a result of the abuse, Facebook has been able “to optimise its own service and tie more users to its network”.

⁶⁴⁴ According to the NCA's appealed decision, Facebook's practice also resulted in a competitive advantage that had an exclusionary effect on competing social networks *“that are not able to amass such a treasure trove of data”*, and on competitors in the advertising market *“which are faced with a dominant supplier of advertising space in social networks”*.

⁶⁴⁵ Google's market shares: 94% in Europe and 92% worldwide. Data are from July 2020. <https://gs.statcounter.com/search-engine-market-share> [accessed at 09.08.2020]; <https://gs.statcounter.com/search-engine-market-share/all/europe> [accessed at 12.08.2020].

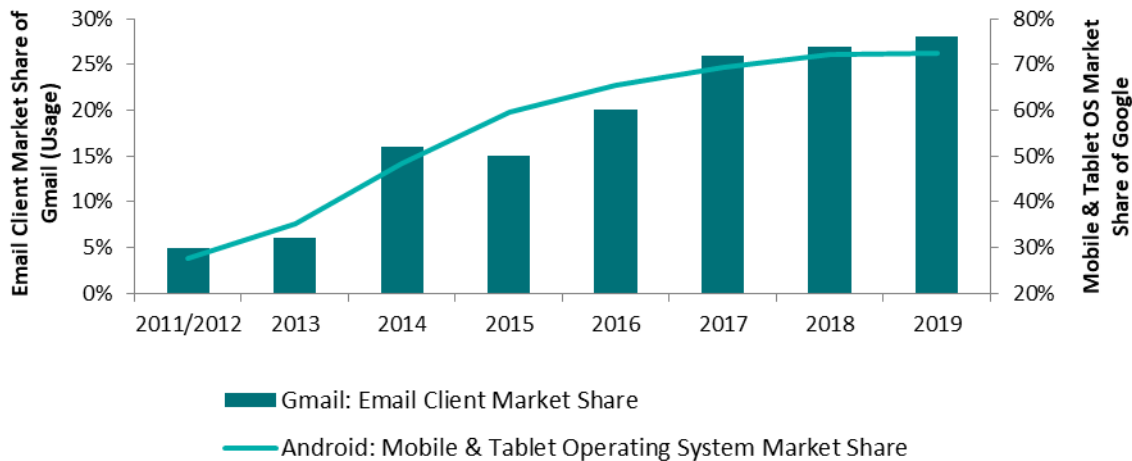
⁶⁴⁶ https://about.google/intl/ALL_de/products/ [accessed at 09.08.2020].

62% in Europe.⁶⁴⁷ Google’s operating system Android currently has a market share of 39% in Europe and globally. Google’s biggest competitor in this segment is Microsoft, which holds a market share of about 35%.⁶⁴⁸ Last but not least, Google is one of the top three digital advertising platforms.⁶⁴⁹

To use many of the services aimed at consumers to their full extent, users are obliged to create a Google account, i.e. a unique identifier for each consumer. This account is closely tied to Google’s own free web-based e-mail service Gmail. Gmail was introduced in the mid 2000s, and was Google’s first product that required users to create a personal account to use the service.⁶⁵⁰

Gmail’s market share on the email client market did not seem to rise until six years after its introduction. One factor that may have contributed to the sudden increase in Gmail’s market share could be the increasing number of mobile devices running Android (see Figure 166). Currently, both Gmail and Apple’s native iPhone email client dominate the market for email clients, with both having an almost identical market share of 27.8% and 27.6%, respectively.

Figure 166. Gmail’s Market Share on the Email Client Market (active usage) and Android’s Market Share on the Mobile & Tablet OS Market - Worldwide



Sources: Litmus & <https://gs.statcounter.com/os-market-share/mobile-tablet/europe/#yearly-2012-2020> [last access 11.08.2020].

Facebook

Facebook was founded almost a decade later, in 2004, by Mark Zuckerberg, Eduardo Saverin, Dustin Moskovitz, and Chris Hughes. Although Facebook initially launched as a social network, Facebook has expanded its range of products through important acquisitions and own product developments, especially in the area of digital communication and

⁶⁴⁷ Data are from July 2020. <https://gs.statcounter.com/browser-market-share/all/europe> [accessed at 09.08.2020]; <https://gs.statcounter.com/browser-market-share> [accessed at 09.08.2020].

⁶⁴⁸ Market share of Google’s and Microsoft’s operating system is based on all devices (mobile, tablet, and desktop) <https://gs.statcounter.com/os-market-share> [accessed at 09.08.2020]; <https://gs.statcounter.com/os-market-share/all/europe> [accessed at 09.08.2020].

⁶⁴⁹ <https://marketingland.com/almost-70-of-digital-ad-spending-going-to-google-facebook-amazon-says-analyst-firm-262565> [accessed at 09.08.2020]; <https://www.emarketer.com/content/facebook-and-google-maintain-grip-in-uk-digital-ad-market> [accessed at 09.08.2020].

⁶⁵⁰<https://www.britannica.com/topic/Gmail> [accessed at 09.08.2020].

interpersonal interaction, that helped strengthen their position in the global market. Key events in the history and evolution of Facebook are summarised below.

2008: Facebook Chat launched.

2009: Like button was introduced.

2011: Messenger was introduced.

2012: Instagram was acquired.

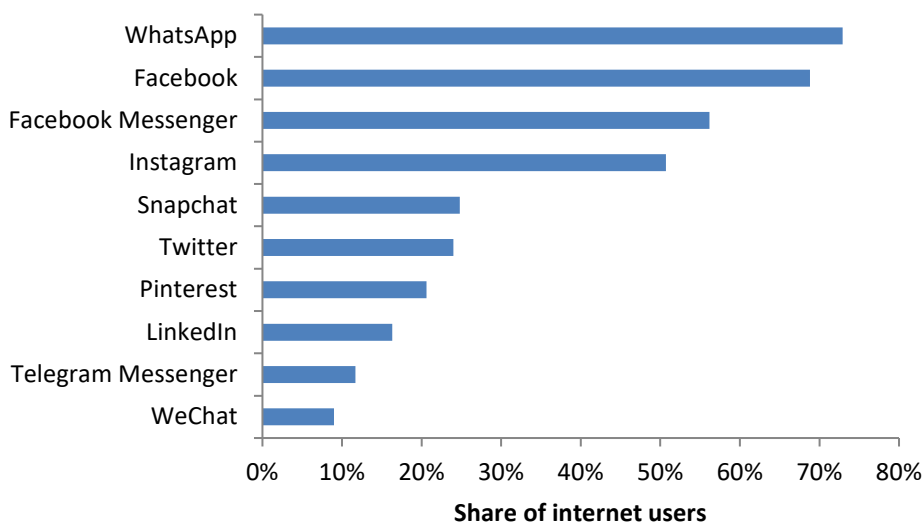
2014: Whatsapp was acquired; Safety check introduced.

2015: Facebook Live is introduced.

2017 Facebook announces Facebook Spaces; social media app tbh acquired⁶⁵¹.

With over 2.7 billion monthly active users worldwide as of the second quarter of 2020, Facebook currently dominated the social media market.⁶⁵² But also Facebook other services WhatsApp, Instagram and Facebook Messenger, are increasingly popular throughout the world and in Europe. All four services of Facebook are among the most used services in Europe (see Figure 167). In contrast to Google's approach, a user registration was mandatory for these services from the start.

Figure 167. Social Media and Messenger Market – share of internet users using top 10 social media and messenger services in Q2 2020 – EU13



Sources: GWI (2020). Wave Q2 2020. <https://www.globalwebindex.com/> [last access 20.08.2020].

Social Log-In Market

By the late 2000s, Google opened up its Accounts Authentication API and enabled developers to include a Sign-In button on their website. Consumers were able to login to third-party websites by authenticating themselves via their Google/Gmail account.⁶⁵³ At about the same time, Facebook introduced its service Facebook Connect, which also allowed

⁶⁵¹ <https://www.officetimeline.com/blog/facebook-history-timeline> [accessed at 10.08.2020]; <https://about.fb.com/company-info/> [accessed at 10.08.2020].

⁶⁵² Statista (2020). Facebook: number of monthly active users worldwide 2008-2020.

⁶⁵³ https://techcrunch.com/2013/02/26/google-launches-google-sign-in-for-mobile-and-web-with-new-selective-and-interactive-sharing-one-click-android-app-installs/?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce_referrer_sig=AQAAANfDFsOPIYr8DFTTZwqtDD8xe7LpelVTAeC7I4WeemCr786KzyZEkrUttwuJ3FB0omFNyoEb6vA13zQgqRGW_QuPWB8MCzqaNcbOE95LnI8MvCMthQJPEsBBE9mOROQBjyTmki-6ZNxHo2g9m8yigEIWnRVZjCm3RB5C0eN9N2P [accessed at 09.08.2020].

consumers to register to unaffiliated websites and services. Today, a variety of different providers offer Social Log-In options (see Figure 168).

Figure 168. Social Log-In providers

<ul style="list-style-type: none"> ▪ AOL ▪ Amazon ▪ Disqus ▪ Facebook ▪ Foursquare ▪ Google+ ▪ Hyves ▪ Instagram ▪ LinkedIn 	<ul style="list-style-type: none"> ▪ LiveJournal ▪ Meetup ▪ PayPal ▪ Plurk ▪ QQ ▪ Renren ▪ Pinterest ▪ Sina Weibo 	<ul style="list-style-type: none"> ▪ Telegram ▪ Twitter ▪ Vkontakte ▪ WeChat ▪ WordPress ▪ XING ▪ Yahoo! ▪ etc.
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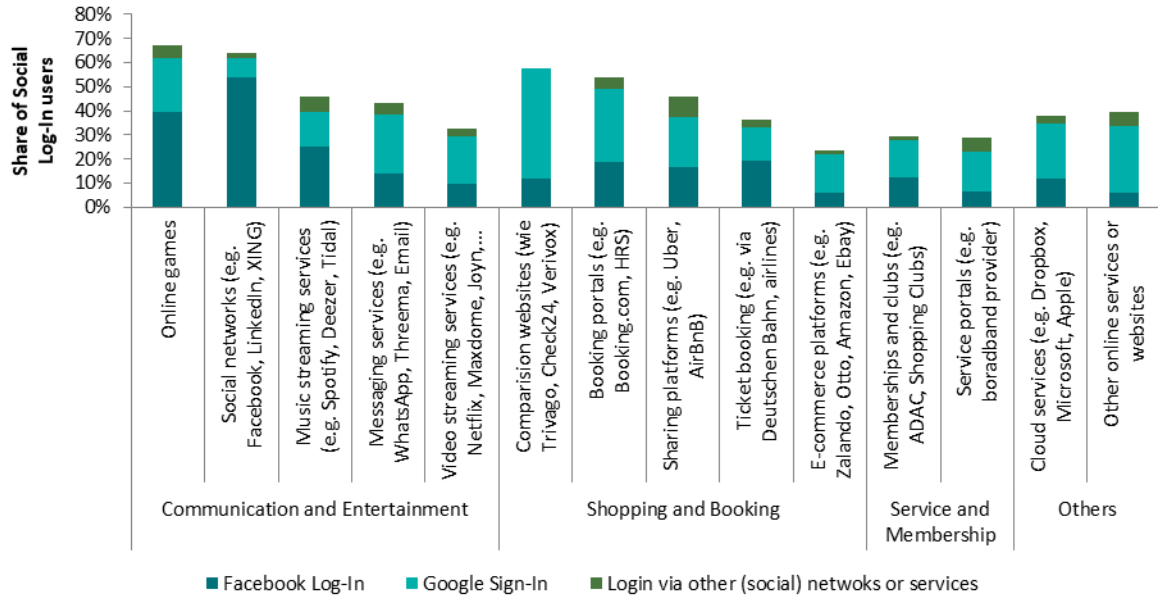
Source: Wiewiorra, L; Liebe, A.; Taş, S. (2020). „Die wettbewerbliche Bedeutung von Single-Sign-On- bzw. Login-Diensten und ihre Relevanz für daten- basierte Geschäftsmodelle sowie den Datenschutz“. Discussion paper, No. 462, WIK: Bad Honnef.

Data on the global and European Social Log-In market is meagre. However, WIK-Consult has access to data from a survey on this subject conducted in Germany in 2019, which can provide insights on some trends. As briefly stated in the opening chapter, consumers most commonly use Google Sign-In and/or Facebook Log-In (see Figure 169). About 60% of consumers using Social Log-Ins in general, indicated to have used Facebook Log-In, whereas slightly more than 40% indicated to have used Google Sign-In. Around 12% indicated to have used Social Log-In solutions provided by other (social) networks or services. German consumers have been using 1.2 Social Log-In options in total.⁶⁵⁴

Consumers mainly use Social Log-In options to enter online games or other social networks. Other prominent domains of application are comparison websites and booking portals. In all four cases, more than 50% of Social Log-In users stated that they used a Social Log-In to login the last time they used the service. The data also reveals that for communication and entertainment services, Facebook Log-In is used by a greater share of consumers than Google Sign-In, while for services in the category shopping and booking it's the other way around.

⁶⁵⁴ Out of seven – Log-In via Facebook, Google, Instagram, Twitter, Yahoo, Microsoft and LinkedIn.

Figure 169. Services and Websites signed in via Social Log-ins



Sources: WIK-Consult. Consumer survey.

Social Log-In options are implemented in several hundredthousands of websites and services globally. According to Datanyze, the Facebook Log-In is currently integrated in more than 100,000 websites worldwide, giving a market share of about 48%. Google Sign-In covers more than 15,000 websites and has a market share of about 7%.

Table 40. Website use of different Log-In services

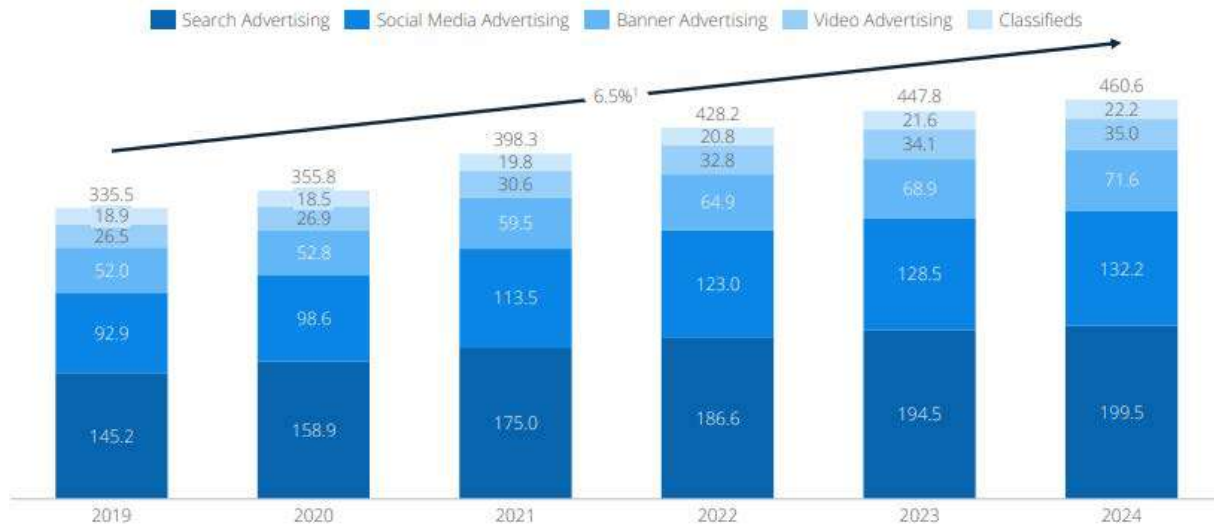
Technology	Number of Domains			
	Worldwide	Germany	France	Italy
Facebook Log-In	218,871	5,656	1,830	1,578
LinkedIn JavaScript SDK	135,963	1,369	2,188	2,281
LinkedIn Log-In	49,958	663	442	340
Google Sign-In for Websites	25,903	216	388	244
Twitter Sign-In	3,176	16	21	30
OneAll	2,853	18	36	71
Janrain Social Login	736	4	18	4
Gigya Registration as a Service	340	6	7	10
Apptha Magento Social Login	70	N.A	N.A	2
Gigya Login	67	1	N.A	3

Source: <https://www.datanyze.com/market-share/social-login--55> [accessed at 21.08.2020].

Digital Advertising Market

The digital advertising market is constantly growing. According to Statista (2020), global digital advertising revenue accounts for USD 336 billion and is expected to grow to USD 461 billion by 2024.⁶⁵⁵

Figure 170. Global revenue forecast in billion USD



Sources: Statista (2020). Digital Advertising Report 2020. Statista Digital Market Outlook.

The largest share of total digital advertising revenue is generated via search advertising and social media advertising. These segments still have the greatest growth potential to date. Statista (2020) estimates a 6 to 8% growth in revenue in search and social media advertising in the next 5 years worldwide and in Europe. These numbers point to the importance of these segments for advertisers. Many potential customers discover new products and brands through search engine or social media advertising. In 2019, about 27% (21%) and 34% (42%) of consumers worldwide (in Europe) indicated that they find out about new brands and products via social media advertising and search engines, respectively.⁶⁵⁶

As indicated in the previous subsections, both of these markets – search and social media – are dominated by either Google or Facebook. This may also be the reason why the two companies also dominate the advertising market in the two segments. According to Statista (2020) Google has an approximate market share of about 80 to 85% in the search advertising market in several European countries. Facebook maintains about the same share in the social media advertising market in the same European countries.⁶⁵⁷

Both of these companies entered the digital advertising market shortly after their foundation. Google entered the digital advertising market by introducing its advertising program Google AdWords (rebranded into Google Ads in 2018) in 2002.⁶⁵⁸ After 2002, Google constantly acquired and developed new products to improve its advertising services for its business customers. Important acquisitions and developments included:

⁶⁵⁵ This and the following information in this subsection are mainly based on Statista (2020). Digital Advertising Report 2020. Statista Digital Market Outlook.

⁶⁵⁶ GWI (2020). Wave Q4 2019. <https://www.globalwebindex.com/> [last access 20.08.2020].

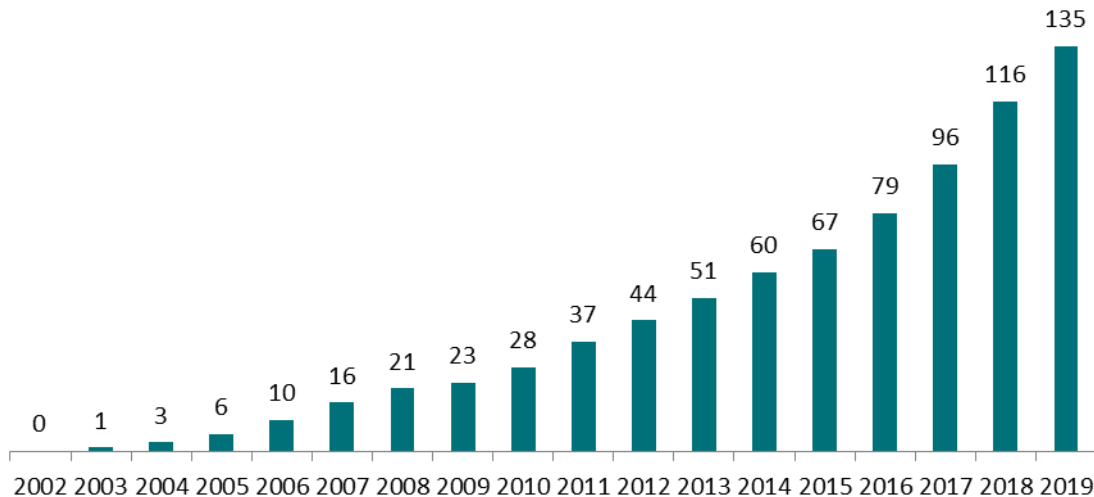
⁶⁵⁷ European countries considered in Statista (2020). Digital Advertising Report 2020. Statista Digital Market Outlook.: Germany, France, Spain, Italy (and UK).

⁶⁵⁸ <https://www.linkedin.com/pulse/short-history-google-ivijan-stipic> [accessed at 09.08.2020].

2003: Google AdSense launched and Google acquired Applied Semantics.
2005: Google acquired Urchin and launched Google Analytics; Site Targeting was introduced, Quality Score was introduced.
2007: Google acquired DoubleClick; Introduction of first video ads.
2009: Interest-based advertising was announced.
2010: Google acquired AdMob.
2011: New targeting options were released based on a user's physical location or their location of interest; Dynamic Search Ads were released.
2013: Enhanced Campaigns were launched for cross device campaigns.
2014: Ad customisers were introduced.
2015: Universal App Campaign type was announced; Native Gmail Ads was launched.
2017: Smart display campaigns were introduced⁶⁵⁹.

In 2019, Google's advertising revenue amounted to about USD 135 billion. Over the last 5 years, Google's revenue has increased by almost 20% annually.

Figure 171. Advertising revenue of Google from 2001 to 2019 (in billion U.S. dollars)



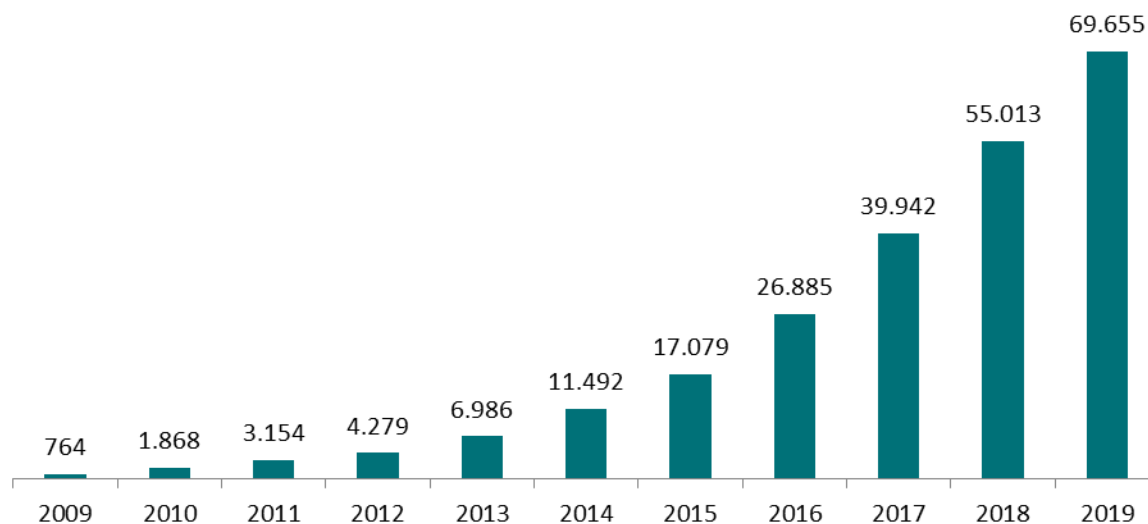
Source: Statista (2020). Google: annual advertising revenue 2001-2019 [last access 21.08.2020].

Facebook entered the advertising market in 2006/2007 and has also been constantly expanding and further developing its service.⁶⁶⁰

⁶⁵⁹A comprehensive list is provided by <https://instapage.com/blog/google-adwords-infographic> [accessed at 09.08.2020]; <http://www.peasoupdigital.co.uk/visual-history-google-adwords/> [accessed at 09.08.2020]; <https://www.wordstream.com/articles/interactive-history-of-adwords> [accessed at 09.08.2020].

⁶⁶⁰ See <https://leadsbridge.com/blog/facebook-ads-tips/infographic-history-facebook-ads/> [accessed at 21.08.2020]; <https://mashable.com/2011/06/28/facebook-advertising-infographic/?europa=true> [accessed at 21.08.2020] <https://about.fb.com/company-info/> [accessed at 10.08.2020].

Figure 172. Facebook's advertising revenue worldwide from 2009 to 2019 (in million U.S. dollars)



Source: Statista (2020). Facebook: advertising revenue worldwide 2009-2019 [last access 21.08.2020].

The advertising revenue of Facebook is also rising steadily. Over the last 5 years, Facebook's revenue has increased by almost 40% annually.

According to Statista (2020), about 80% of ad spending worldwide and in Europe is processed via programmatic advertising. Programmatic advertising describes the fully automated and individualised purchase/selling of advertising space in real time. The purchase, display, and optimisation of advertising space are based on consumer data. In principle, the addressee of the advertisement is already determined before the advertisement is actually sold and placed. This type of ad placement is highly personalised and "relies heavily on metrics and data inputs".⁶⁶¹

iv. Evidence of the problem and associated harms

The main goal of almost every company in the digital economy is to improve customers' user experiences. The aspect of personalisation plays an important role in this process. The more granular data a company has at its disposal, the more effectively the service can be tailored to the needs of users. Given Facebook's and Google's dominance in their core markets and their involvement in other business areas, it can be assumed that they maintain an enormous internal database. The provision of Social Log-In options is another possibility for these companies to add data to their existing database.

Nonetheless, Social Log-Ins enable unaffiliated websites and services to increase their user base. As stated above, a Social Log-In simplifies the registration process, i.e. it reduces the cost of registration, which increases the likelihood of using a service. This, in turn, increases their database, may help them to improve their service and enhance their user's experience by personalising content and targeting practices, and increases their competitiveness. These effects are the main reasons why websites and services adopt Social Log-In options. Yet, these rationales for adopting Social Log-In solutions apply to all websites and services that require registration. The more websites and services offer Social Log-In options, the smaller the positive impact on the competitive position of each individual company in the market gets. Social Log-In providers like Facebook and Google, on the other hand, always benefit from the adoption of Social Log-In solutions as they get access to data from a wide range of

⁶⁶¹ Statista (2020). Digital Advertising Report 2020. Statista Digital Market Outlook.

companies and potential competitors.⁶⁶² This could strengthen their already strong position, especially in the strongly data-driven advertising market. Some interviewees reported that smaller platforms already highly depend on large platforms to gain access to consumers and markets. This dependency results partially from a gap in data availability between larger and smaller platforms which can never be closed.

Furthermore, Krämer, Schnurr & Wohlfarth (2020) points to the possibility that “after adopting the social login, a technological lock-in may occur, so that the proper functioning of the special-interest CP’s own service may strongly depend on the provision and functioning of the social login itself, which is controlled by a third party. This may give rise to the well-known hold-up problem.”⁶⁶³ Interviewees have reported that dominant platforms increasingly demand a higher remuneration from their partners for their services, often in the form of data.

Although there are a lot of Social Log-In providers on the market the majority of websites implements either Facebook Log-In or Google Sign-In or both, as seen in Figure 173. This is an indication of dominance per-se. One interviewee pointed out that if these big players did not already have a dominant position, businesses would have to integrate several Log-In buttons to reach the same number of consumers.

Another side effect may be that the implementation of Google Sign-In and Facebook Log-In increases Facebook’s and Google’s already high visibility and may attract new users.

From the consumer's point of view, this service can also be considered cumbersome. It is very likely that consumers are not aware of the extent of data transferred. Even if they are concerned about security and privacy, the survey in Germany showed that consumers use Social Logins anyway, because of the simplicity and comfort they provide. There is a certain behavioral bias that is present in many data protection and privacy-related areas.⁶⁶⁴

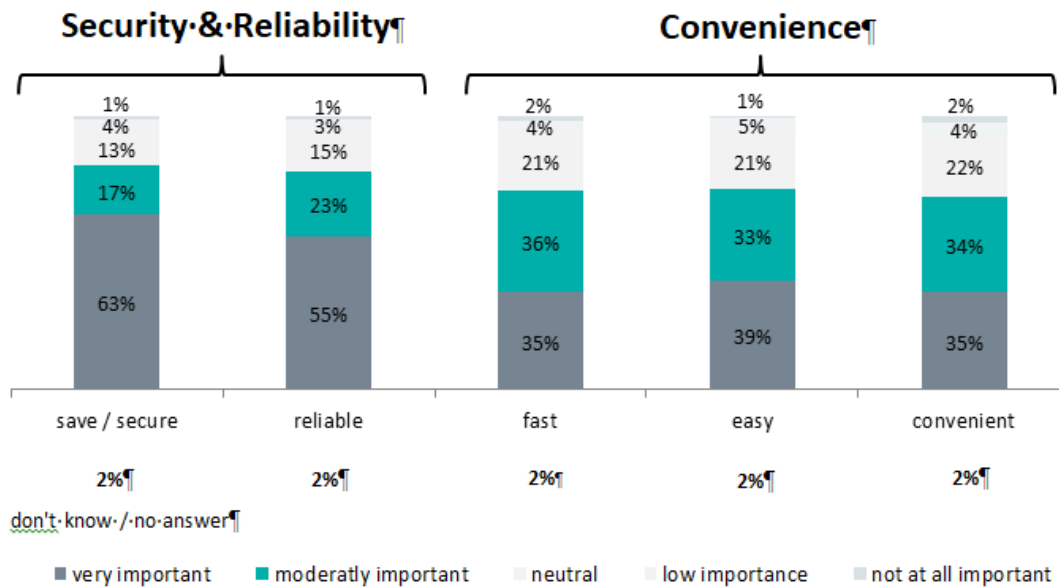
The figure below shows that Social Log-In users generally value aspects like security and reliability the most with respect authentication systems. Far fewer Social Log-In users stated that simplicity and convenience are very important to them when choosing an authentication system. Nonetheless, all of these consumers represented in the figure below used Social Log-In options, mainly Facebook Log-In and Google Sign-In. The respondents’ statements to some open questions indicated that in the majority of cases, a Social Log-In was used for convenience reasons.

⁶⁶² Krämer, J.; Schnurr, D.; Wohlfarth, M. (2020). „Winners, Losers, and Facebook: The Role of Social Logins in the Online Advertising Ecosystem.” *Management Science* 65(4):1678-1699.

⁶⁶³ Krämer, J.; Schnurr, D.; Wohlfarth, M. (2020). „Winners, Losers, and Facebook: The Role of Social Logins in the Online Advertising Ecosystem.” *Management Science* 65(4):1678-1699, p.1697.

⁶⁶⁴ The German NCA is also referring to the privacy paradox in this context. See Bundeskartellamt, Case B6-22/16 against Facebook, para. 384.

Figure 173. Properties of authentication systems for online services and websites – Share of Social Log-In users



Sources: WIK-Consult. Consumer survey.

There is also a large number of consumers who do not use Google Sign-In, Facebook Log-In or other Social Log-Ins, because they are concerned about their data. But in this context, these consumers have even less self-determination, since data is already transferred from a service or websites without actually using the Social Log-In button.⁶⁶⁵

v. Solutions and impacts

In the proceedings against Fashion ID, it was denounced that the built-in Social Plugins such as the Like-Button send user data (e.g. IP address, browser information) to Facebook once the website has loaded. Users were neither informed about this process nor did they have the opportunity to object to it. Data was also collected and sent from users who did not have a Facebook account.⁶⁶⁶ There are some suggested solutions in connection with Social Plugins which may apply to Social Log-Ins as well, like the 2-click concept: in the 2-click concept, the button - in this case the Social Log-In Button - would be inactive by default and would only be activated if the user consciously clicked on it. By activating the button, the user would give his consent to the transfer of the data. A second click would then allow the user to login.

While the 2-click concept might be able to improve consumers' positions as they gain more self-determination with regards to their data, competitors would still be obliged to share data at least for those consumers that use Social Log-Ins. Facebook and Google would continue to use Social Log-Ins options to capture more data to feed into their own database.

Another solution might be the provision of a secure, privacy-preserving Log-In option like a national or European Digital ID Service. This solution would protect consumers' data, avoid a two stage registration process (2-click concept), and would block at least one data collection source of large players.

⁶⁶⁵ Bundeskartellamt, Case B6-22/16 against Facebook, Exploitative business terms pursuant to Section 19(1) GWB for inadequate data processing.

⁶⁶⁶ <https://www.verbraucherzentrale.de/wissen/digitale-welt/datenschutz/eughurteil-likebutton-von-facebook-nur-mit-info-an-nutzer-12029> [accessed at 21.08.2020].

These solutions could have the following positive implications:

- Increase in consumer welfare: the registration process would remain simple, but consumer data would be better protected.
- Limiting the chance of leveraging consumer and business data: the amount of data transferred due to the implementation of Social Log-In options on websites and services would be reduced.

Without intervention, Facebook and Google will be able to further cement their position in their core market and other markets, especially in the highly data-driven digital advertising market. The more content or service providers that implement Social Log-In options, the greater the scale at which data can be collected by Facebook and Google and feed into their existing database. Their current position enables them to have tools and policies in place which already grants them access to consumer data and data on competitors in other ways. Competitors of Google and Facebook are already struggling to keep up; this problem would intensify.

j. Case 9: Slack – Interoperability / API

i. What is the problem/s associated with this case?

Slack, the provider of workplace messaging application Slack, filed an antitrust complaint against Microsoft with the European Commission on 22 July 2020. Slack claims that Microsoft (MS) is using its dominance in the Office market to push its Teams product, which competes with Slack. In addition, Slack noted that MS refused to provide interoperability information, hampering users who want to connect from Slack to MS calls or documents. This case focuses on the interoperability aspect.

Jonathan Price, Vice President of Communications and Policy at Slack, noted that “...*Slack offers an open, flexible approach that compounds the threat to Microsoft because it is a gateway to innovative, best-in-class technology that competes with the rest of Microsoft’s stack and gives customers the freedom to build solutions that meet their needs.*” Furthermore, he notes that “*Slack threatens Microsoft’s hold on business email, the cornerstone of Office, which means Slack threatens Microsoft’s lock on enterprise software.*”

Jonathan Price also noted in regard to the filing that “*this is much bigger than Slack versus Microsoft – this is a proxy for two very different philosophies for the future of digital ecosystems, gateways versus gatekeepers.*”⁶⁶⁷

In summary:

- Slack is collaboration software. It is a new layer of technology integrating other services such as email gateways and cloud storage, which provides end users with a different user interface. Slack therefore could replace email.
- Until now, MS has controlled most of the user interfaces; being their Office products, e-mail, business intelligence, human capital management and salesforce management. Only in the CRM and customer service market does MS not lead (Salesforce does).
- Slack started in 2013, grew rapidly to almost 10 million daily active users (DAU) in 2018 and was the largest vendor worldwide of collaboration software.
- MS launched in July 2017 a set of collaboration tools (SharePoint and Teams).
- MS bundled SharePoint and Teams directly with its MS 365 products (former Office products, which still have a dominant position in the market – 80% share) for almost no additional fee.⁶⁶⁸

⁶⁶⁷ <https://slackhq.com/slack-files-eu-competition-complaint-against-microsoft>

⁶⁶⁸ See case 3 as well

- Within less than 2 years, MS had established 32 million DAUs (by March 2020). Thereafter, MS benefitted greatly from the COVID-19 outbreak by increasing to 75 million DAUs and dwarfing Slack with an estimated 13 million DAUs.
- MS integrates its products seamlessly, where third party vendors are dependent on MS open interfaces. In the past, there have been indications that MS supports its own technical protocols better than industry standards.
- After the EC's (Microsoft /Sun) decision on 24 March 2004⁶⁶⁹, MS created the Workgroup Server Protocol program to make protocol technology publicly available. In 2008, MS published interoperability principles, making available technical specifications for protocols in its high-volume products (however, excluding Teams).
- It is not clear how well these MS initiatives function. It is noted that even large parties like SAP and Salesforce are still entering into partnerships with MS to ensure the integration of their products with MS Office and collaboration applications.
- The collaboration market is expected to grow further in the next 3 years by roughly 50% to roughly \$15 billion worldwide.

ii. Legal context

Slack Technologies⁶⁷⁰ July 2020 complaint to the European Commission against Microsoft for an alleged abuse of dominance under article 102 TFEU includes, in addition to tying (see Section d), an allegation that Microsoft refuses to provide necessary interoperability information.⁶⁷¹

Therefore, the complaint requests that the Commission impose remedies on Microsoft which would, amongst other things, require it to provide all such necessary interoperability information.

Under EU case law, the following cumulative criteria have to be met to establish a duty to deal under the so-called essential facilities doctrine: (1) control over an input that is indispensable to a competitor in a different market; (2) risk of all effective competition being eliminated; (3) no objective justification. The indispensability threshold is difficult to meet. In essence, it must be shown that there are no alternative solutions to the input (or network/platform) and that duplicating it would be impossible or unreasonably difficult.⁶⁷²

Microsoft and refusal to supply Windows interoperability information

In 2004, the European Commission found⁶⁷³ that Microsoft abused its dominance under article 102 TFEU in the market for PC operating systems (OSs) by refusing to supply Windows interoperability information to its competitors (the other established abuse was tying Windows Media Player to the Windows OS).

⁶⁶⁹ European Commission (2004), C(2004)900final, https://ec.europa.eu/competition/antitrust/cases/dec_docs/37792/37792_4177_1.pdf.

⁶⁷⁰ On 1 December 2020, Salesforce announced an agreement to acquire Slack <https://investor.salesforce.com/press-releases/press-release-details/2020/Salesforce-Signs-Definitive-Agreement-to-Acquire-Slack/default.aspx>

⁶⁷¹ Website of Quinn Emanuel, the law firm that represents Slack <https://www.quinnemanuel.com/the-firm/news-events/july-2020-quinn-emanuel-files-antitrust-complaint-with-the-eu-commission-against-microsoft-on-behalf-of-slack/>. See also <https://slack.com/intl/en-it/blog/news/slack-files-eu-competition-complaint-against-microsoft>

⁶⁷² See, for example, Ibáñez Colomo, Pablo, *Indispensability and Abuse of Dominance: From Commercial Solvents to Slovak Telekom and Google Shopping* (December 11, 2019). Forthcoming, *Journal of European Competition Law & Practice*, p. 2 <https://ssrn.com/abstract=3502519>

⁶⁷³ European Commission decision of 24 March 2004 in Case 37.792 *Microsoft* (refusal to supply Windows interoperability information and tying Windows Media Player) https://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=1_37792; EU General Court judgment of 17 September 2007 in Case T-201/04 *Microsoft v. Commission* <http://curia.europa.eu/juris/liste.jsf?num=T-201/04>

Sun Microsystems (acquired by Oracle in 2010), the developer of the Java programming language and the Solaris OS, explained in its complaint that it requested from Microsoft certain information necessary for its work group server OS, Solaris, to interoperate with Windows PCs.

Work group servers deliver file and print sharing as well as group and user administration services to client PCs within a corporate or administrative network.

Sun said that it needs certain information for Solaris to interoperate with Windows PCs, in particular interface specifications for the protocols used by Windows work group servers to provide services to Windows work group networks (i.e. a set of client PCs and work group servers).

These interface specifications are distinct from implementation details (i.e. the source code) in that they do not allow competitors to copy Windows, but only to develop products compatible with Windows.

Microsoft rejected Sun's request, contending in particular that the interoperability information in question "*constitutes valuable intellectual property protected by copyright, trade secret laws and patents*".

The Commission concluded that this conduct amounted to abusive refusal to supply. (The investigation also revealed that Microsoft engaged in a general pattern of conduct of withholding interoperability information from other competitors).

The Commission considered that interoperability with Windows is indispensable for companies to "*viably*"⁶⁷⁴ compete in the work group server OS market.

PCs being a key component in work group computing, the market is "*closely associated through commercial and technical links*" with the PC OS market, where Microsoft holds a near-monopoly position.

The Commission's analysis showed that having the interface specifications at issue is the only technically and commercially realistic way to achieve interoperability.

Data collected by the Commission pointed at a risk of elimination of effective competition⁶⁷⁵ in the work group server OS market.

The Commission found substantial customer evidence indicating that Microsoft's "*interoperability advantage*" played a key role in the rapid growth of the company's market share in the work group server OS market from around 23% in 1996 to over 60% by 2002.

Microsoft argued that its conduct was objectively justified and necessary to safeguard its incentive to innovate. The Commission rejected this argument because:

the interoperability information does not allow for the cloning of Microsoft's products; and disclosure of interoperability information is common practice in the industry, and Microsoft itself acted in accordance with this practice in the past when its position in the work group server OS market was still marginal.

In addition to ordering Microsoft to bring its infringements to an end by implementing specific remedies, the Commission fined the company €497.2m (partly for refusal to supply interoperability information). Microsoft did not fully implement the interoperability remedies

⁶⁷⁴ By agreeing with the Commission, the General Court broadened the concept of indispensability used in previous case law – in this case, it was sufficient that competing by using existing alternative inputs was economically unviable, rather than impossible.

⁶⁷⁵ The General Court stated that "*It must be made clear that the fact that the competitors of the dominant undertaking retain a marginal presence in certain niches on the market cannot suffice to substantiate the existence of such competition*".

until October 2007. Therefore, it received two additional fines, €280.5m and €899m (reduced to €860m on appeal), for non-compliance.

Main remedies related to refusal to supply interoperability information

- Microsoft must “disclose complete and accurate specifications for the protocols used by Windows work group servers in order to provide file, print and group and user administration services to Windows work group networks”.
- The disclosure must be made on a reasonable and non-discriminatory basis to any undertaking that has an interest in offering work group server OS products.
- Microsoft is allowed to require reasonable and non-discriminatory remuneration for the production of the documentation and for specific IP rights that the decision might prevent it from fully enforcing.

Digital economy mergers – Microsoft/LinkedIn

The theory of harm of refusal to supply interoperability, or degrading it, has also been analysed in several reviews of digital economy mergers.

Apart from the European Commission’s 2016 conditional phase I clearance decision on *Microsoft/LinkedIn*⁶⁷⁶, this has not raised competition concerns.

In *Microsoft/LinkedIn*, the Commission analysed whether Microsoft could integrate LinkedIn features into Office products, for example viewing information on existing LinkedIn contacts within Outlook or adding new LinkedIn contacts from Outlook, while denying similar levels of integration to competing providers of professional social network services.

According to the Commission, such integration could have an anticompetitive effect because it would:

- dramatically increase LinkedIn’s visibility; and
- enable LinkedIn (subject to user consent) to access users’ Outlook address books to suggest new LinkedIn connections, which could significantly expand the size of the network.

Microsoft offered commitments to address the Commission’s competition concerns, including granting access to competing professional social networks to its API gateway, Microsoft Graph, that allows software developers to access user data stored in the Microsoft cloud

Main commitments related to the Commission’s competition concern over the integration of LinkedIn features into Office and denial of access to Microsoft’s APIs

- Make available to competing professional social network service providers the Office Add-in Program and the associated Office Add-in APIs
- Grant competing professional social network service providers access to the Microsoft Graph, an API gateway for software developers
- Make available on non-discriminatory terms the Office Store for distribution and downloading of Outlook add-ins for professional service providers
- Allow add-ins to run independently of any new functionality that involves LinkedIn profile and activity information being displayed in Office
- Allow users to disable and re-enable LinkedIn features for Office

⁶⁷⁶ European Commission decision of 6 December 2016 in Case M.8124 *Microsoft/LinkedIn* https://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=2_M_8124

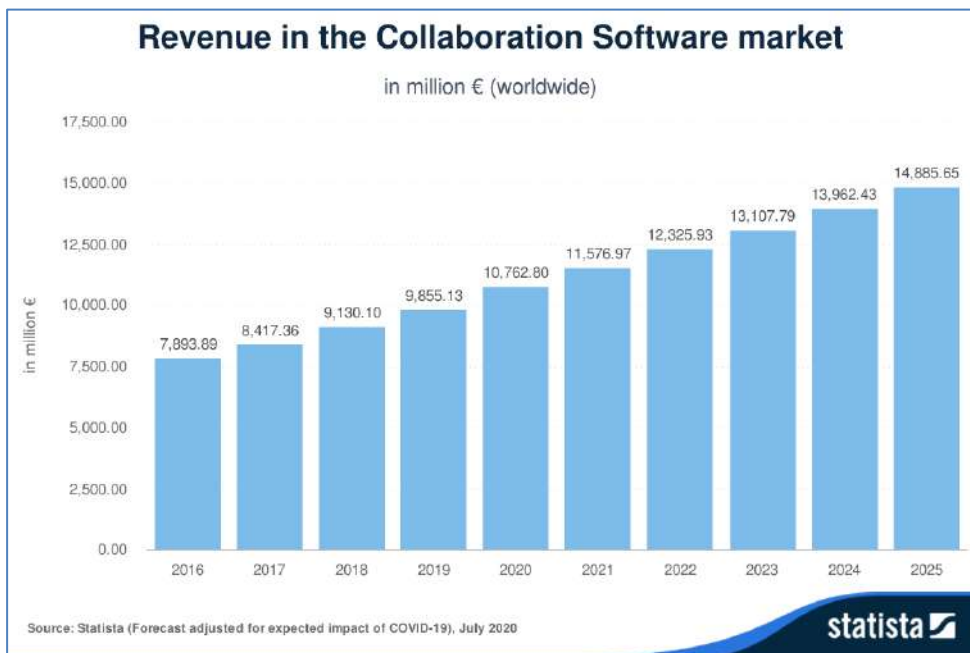
iii. Characteristics of the platform concerned

The collaboration / workflow management market

The application Slack belongs to a market segment which is called collaboration or workflow management software. Slack is a channel-based messaging platform for enterprises supporting workstreams in companies. It is a new layer of business technology integrating other services such as email gateways and cloud storage, which provides end users with a different user interface. Therefore, Slack is considered as an ‘enterprise browser’ as it enables end users to have an aggregated overview of used services and makes it easy for persons to find the information they need.

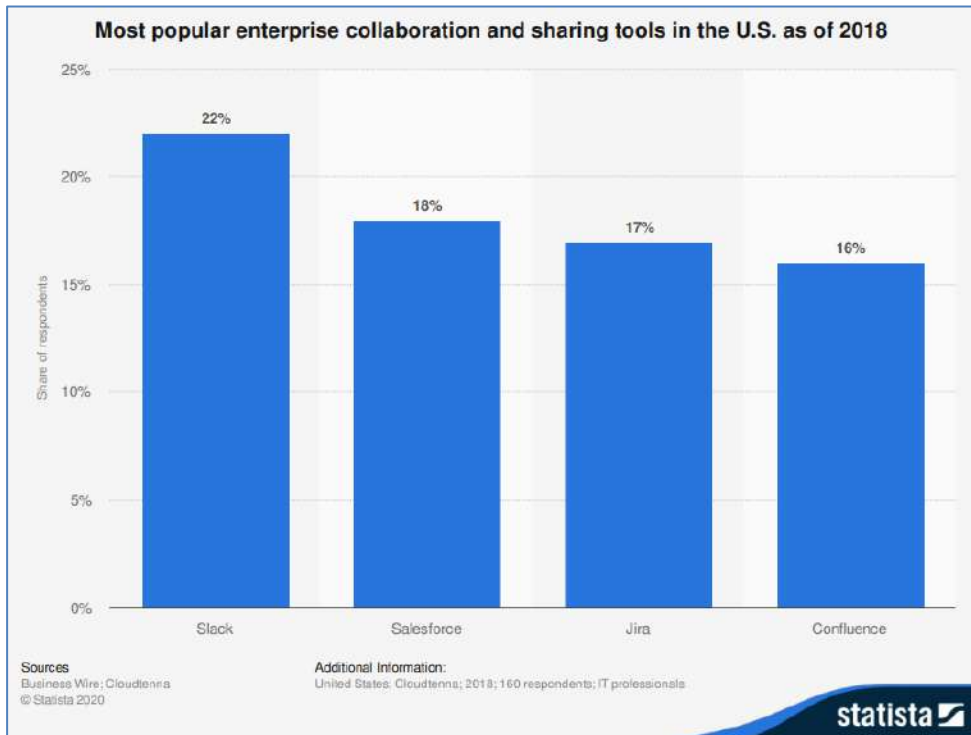
Collaboration software is designed to increase productivity within groups and organisations. It allows groups to communicate, share and manage data, and to collaborate on tasks or projects. The global collaboration software market is projected to grow strongly to almost €15 billion worldwide in 2025 from over €10 billion today (see below figure).

Figure 174. Actual and projected global revenue in the collaboration software market, 2016-25



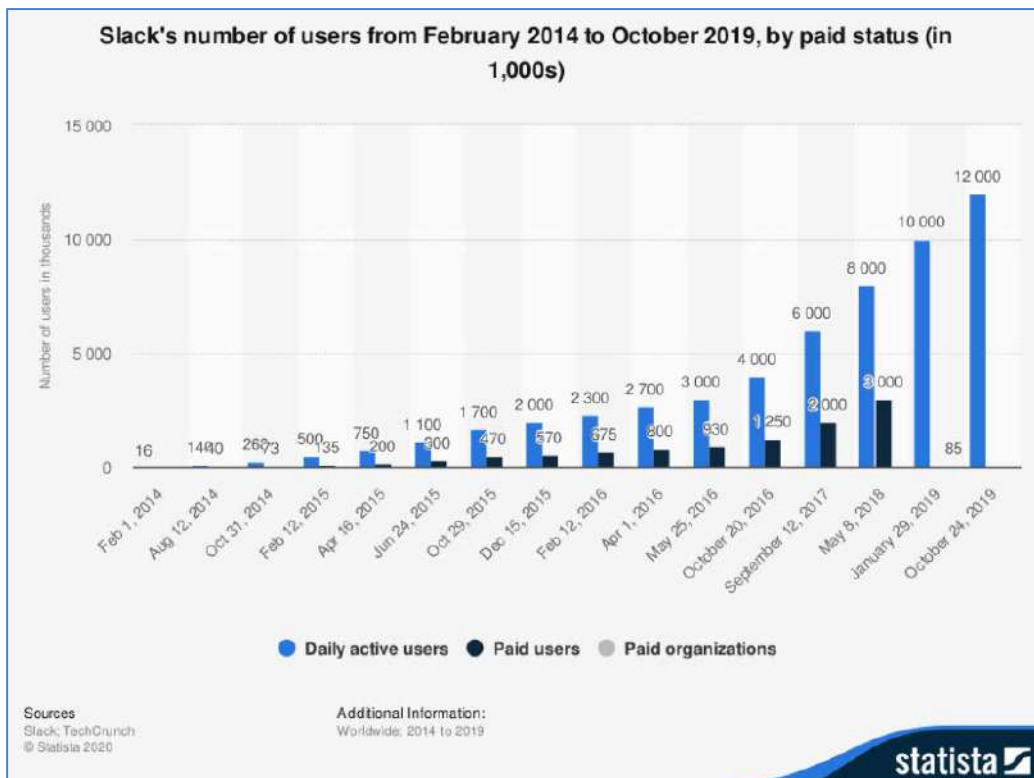
In 2018, Slack was still the most popular enterprise collaboration and sharing tool in the United States, used by 22 per cent of IT professionals. Salesforce, Jira and Confluence were the other major contenders in the field (see below figure).

Figure 175. Use of enterprise collaboration and sharing tools in the US, 2018



The following figure shows that Slack grew strongly from its 2013 launch in the US until 2019. Slack had around 12 million daily active users as of October 2019. From the US, it expanded to markets like Great Britain, Japan, Germany, France and Australia. Slack stated that more than half of their daily active users come from outside the US.

Figure 176. Slack users, 2014-19



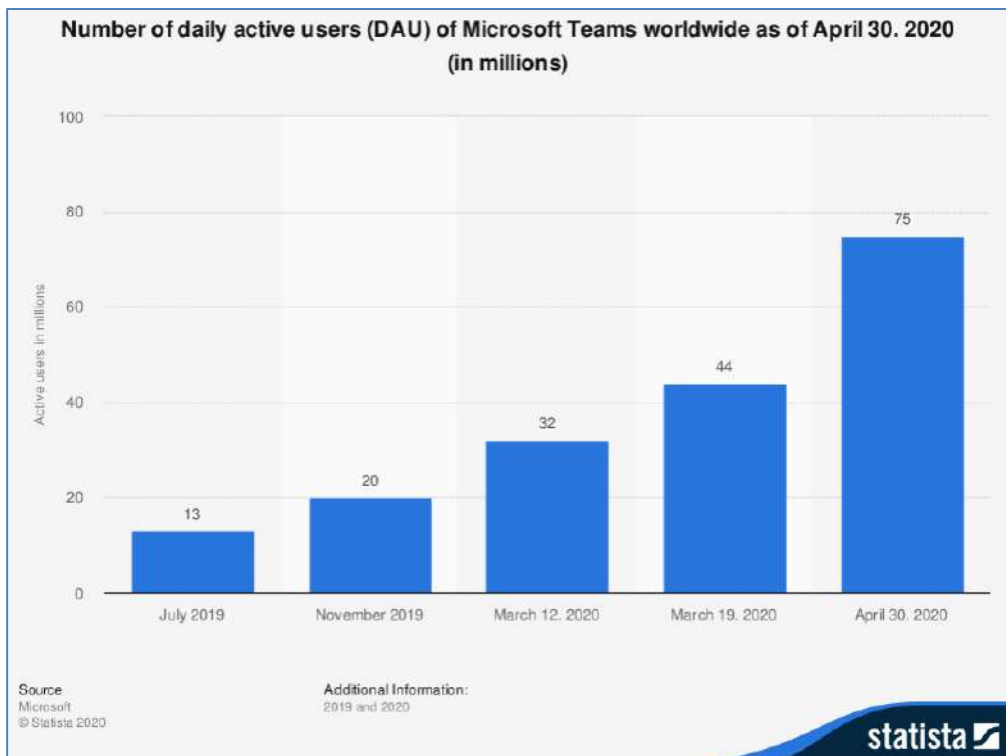
Applications like Slack require integration with as many Office applications, document formats and mail formats as possible including the dominant Microsoft applications. Hence, they are in favour of the open systems approach where different applications can integrate with one another via APIs to offer end users a seamless experience. From the interview with Slack, it appeared that with most large providers this integration functions well including SAP, Salesforce and Google, however not with MS as Slack competes with MS Outlook and exchange servers.

Despite Slack’s rapid growth up to 2018, MS started bundling its competing product Teams with MS 365 bundles in 2017 and Slack was forced to compete with MS Teams, which is essentially given away. David Schellhase, General Council at Slack, stated in this respect that “Microsoft is reverting to past behavior. They created a weak, copycat product (Teams) and tied it to their dominant Office product, force installing it and blocking its removal, a carbon copy of their illegal behavior during the ‘browser wars.’ Therefore, Slack asked in its filing that swift action is taken to ensure Microsoft stops illegally leveraging its power from one market to another by bundling or tying products.”⁶⁷⁷

MS’s strategy to tie-in Teams and SharePoint with the MS 365 bundle containing all Office products and MS exchange server made it very easy for MS’ existing customer base to try and test Teams from 2017 onwards for no additional licensee fees. The corresponding impact of this is demonstrated in the rapid growth MS experienced in this market segment – in less than 2 years, MS had established close to 32 million Daily Active Users (DAU) where it took Slack 6 years to grow to 12 million DAUs.

In addition, MS benefitted strongly from the COVID-19 outbreak and the growing practices of social distancing and working from home. The DAUs of Microsoft Teams increased further from 32 million in March 2019 to 75 million as of April 2020 (see below figure).

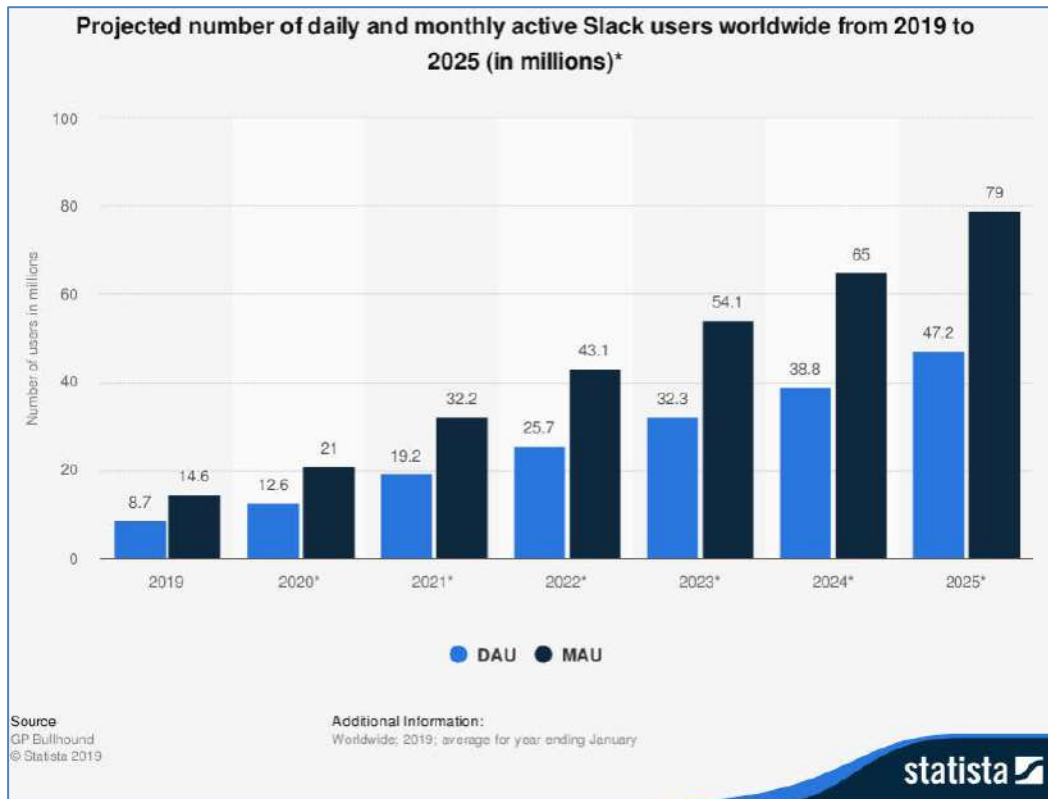
Figure 177. Microsoft teams daily active users 2019-20



⁶⁷⁷ <https://slackhq.com/slack-files-eu-competition-complaint-against-microsoft>

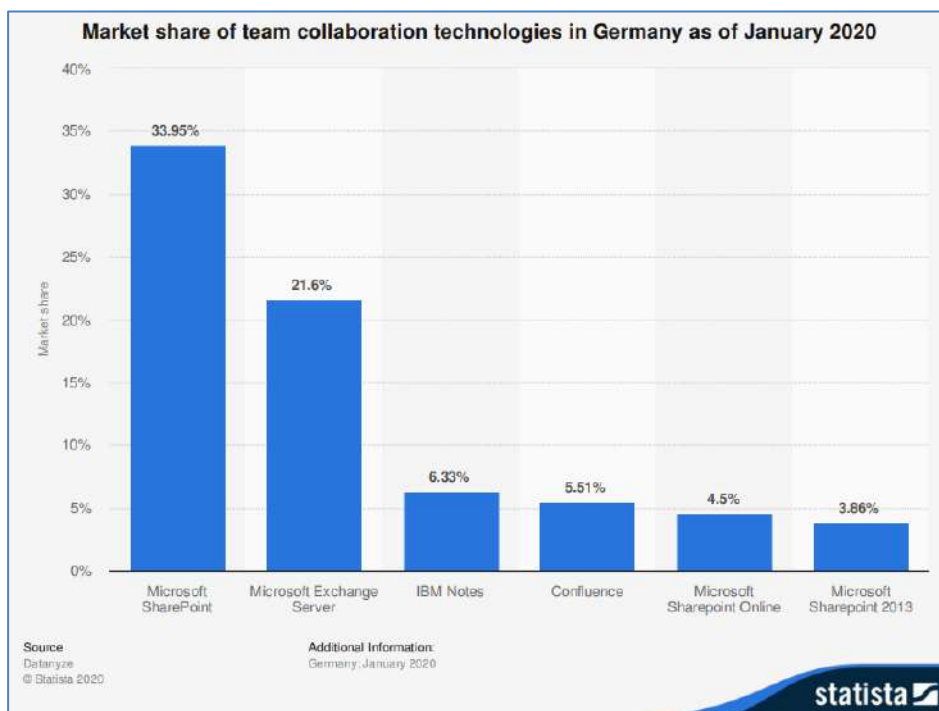
There is no formal data on the exact number of DAUs of Slack currently. However, the following figure displays a prediction of these, which shows that the number of DAUs for Slack for 2020 would be around 13 million, so significantly under the 75 million from MS. MS is currently the clear market leader in this segment.

Figure 178. DAU Slack worldwide 2019-25



In addition, MS's existing Enterprise Content Management software SharePoint, which partly overlaps with Teams, also has a significant market share as illustrated by a snapshot of the German market, one of the largest European economies. As of January 2020, MS held 64% of this market segment. If the current trend continues, it could be that MS's collaboration tools become the de facto standard worldwide and that competitors leave the market.

Figure 179. Market share collaboration software in Germany January 2020



Characteristics that enable MS to act as a “gatekeeper”

The key characteristics that enable MS to act as a gatekeeper in this market segment are as follows:

Dominance in the MS Office / exchange market (68% market share in both).

Due to a broad own-service offering, MS has access to all APIs and update planning so that integration can be ensured between MS other services and Teams.

New bundles with Exchange server also provides access to Teams and SharePoint for a small add-on price (see also Case 3 – for €1.70 per user per month, a company gets Teams, Share Point and Exchange server).

A large R&D budget enables MS to either buy competing functionality and/or develop a worse product towards a similarly competing service in a short time. MS is the largest SW company worldwide, with the largest R&D budget worldwide, and delivered a 30% net profit in 2019.

iv. Evidence of the problem and associated harms

The issue at hand is a combination of bundling tactics and product integration and possible obstruction of integration with MS applications and documents for third-party vendors.

One of the driving aspects for MS seems to be who controls the ‘gateway’, which can be read as the user interface (UI) to the end user. The other one is the unique selling point of MS to be able to offer integration (and ongoing improvements) for its applications as it is able to offer not only the customer-facing applications but also all underlying applications as well.

MS has controlled most of the UI until now, not only due to its market dominance in the OS market, the Office market and the exchange (email) market (all around 80% market share), but also due to leading positions in other segments of the software market like the Enterprise SaaS market and Business Intelligence.

Most of the third-party applications have their place in the supply chain below the well-known MS UI, like databases or specific tools. However, collaboration tools like Slack provide end users with a new interface underneath all other applications and data formats including those

of MS. As such, Slack not only directly competes with Exchange/outlook but also with MS on controlling the User Interface.

It appears that, by 2017, MS understood this threat and started aggressive bundling and developing of its own collaboration services SharePoint and Teams with its dominant MS 365 bundles.⁶⁷⁸ Similar examples are observed when bundling cloud (storage) services with MS 365 bundles (as discussed in Case 3 MS tying and bundling). This tactic has paid off for MS as it took control of the collaboration market worldwide in less than 2 years with 32 million daily active users (DAUs), where it took Slack 6 years to have 12 million DAUs in 2019. During the COVID-19 outbreak, MS has cemented its position further and has currently around 75 million DAUs.

In its complaints towards the Commission, Slack addressed, beside the bundling, the aspect that MS refused to provide interoperability information, hampering users who want to connect from Slack to Microsoft calls or documents.⁶⁷⁹

Due to the market dominance of MS Office and Exchange, third-party vendors like Slack require integration with MS's applications as large amounts of data are generated and handled by MS applications and inherently in MS data formats. As MS is present in almost all market segments, it can offer a complete solution to customers, ranging from databases, BI, AI features, reporting, CRM, ERP systems, etc. MS integrates all these applications more and more with its user interfaces to offer its customers a seamless integration. Hence, third parties like Slack, but also SAP and Salesforce, will need to offer the same level of integration to avoid being at a competitive disadvantage (beside the aforementioned price aspect).

One can distinguish here further the integration between: a) third-party vendors of user interfaces (like Slack) with underlying MS applications, databases and document formats; and: b) integration between MS user interfaces (like Teams) and third parties underlying applications, databases and formats (like SAP, Salesforce, Oracle).

In general, competing third-party providers can only offer similar integration with either MS user interfaces and/or other applications and data formats if there is so called open access. This implies that both MS as third-party vendors have access to information in a timely manner and well-documented regarding data formats, data output and input mechanisms and triggering mechanisms. Full integration means that end users can access data via the user interface (e.g. Teams or Slack) in their usual format, which comes from underlying databases, mail servers or ERP/CRM applications, but can also trigger certain functions via the user interface in the underlying applications (being it MS products or third-party vendor products). Most likely there will be a technical limitation to the amount of functions one can trigger from UI instead of the underlying application itself, but the leading principle is that there should be no difference in this respect to what MS can integrate on its own UI compared to what third-party UI can do.

Only in this manner can all end users benefit from full integration between UI and underlying application and databases, not only the end users of 100% MS solutions.

According to an interview with Slack in August 2020, the integration of Slack works well with other providers and applications but less with MS. Slack noted that issues vary from partly-functioning APIs, to incomplete documentation to late notification of changes. This reinforces MS's own argument towards customers, that their applications and especially Teams, the competing product with Slack, are fully-integrated with other office applications and email.

⁶⁷⁸ See Case 3, for only € 1.70 per month per user, companies get in addition Exchange, Teams and SharePoint

⁶⁷⁹ Bloomberg article, 22 July 2020, <https://www.bloomberg.com/news/articles/2020-07-22/slack-takes-on-rival-microsoft-with-antitrust-complaint-to-eu>

Impact

By bundling Teams, MS can obstruct the integration of its API in parallel and the simultaneous further development of its user interfaces with its underlying applications and databases, thereby further foreclosing the market for other workflow vendors like Slack. However, when MS collaboration tools maintain or expand their current dominance in the market, MS could also use a higher level of integration as a sales argument against other vendors of underlying (ERP/CRM/BI etc.) applications and databases. MS has used this approach before to counteract successful competitors in single market segments. Below are other examples with a focus on the interoperability aspect and the possible impacts thereof (see also the legal section for more details).

In December 1998, Sun Microsystems, another US company, complained that Microsoft had refused to provide interface information necessary for Sun to be able to develop products that would "talk" properly with the ubiquitous Windows PCs, and hence be able to compete on an equal footing in the market for work group server operating systems. The Commission's investigation revealed that Sun was not the only company that had been refused this information, and that these non-disclosures by Microsoft were part of a broader strategy designed to shut competitors out of the market. As a result, an overwhelming majority of customers informed the Commission that Microsoft's non-disclosure of interface information artificially altered their choice in favor of Microsoft's server products.

As result of the 2000 court ruling in the Microsoft Netscape case, MS was obliged to open its Application Programmable Interfaces (APIs), which are required for the integrating with MS applications⁶⁸⁰. Netscape has since exited the market but as of July 2020, Google's Chrome holds 66% marketshare, Apple's Safari 17%, Mozilla's Firefox 4% and MS's Edge 2%.⁶⁸¹

In 2004, there was the antitrust filing before the EC on the interoperability of MS's workgroup server products. MS's conduct enabled them to acquire a dominant position in the market for work group server operating systems, which are at the heart of corporate IT networks. MS was required to disclose complete and accurate interface documentation to competitors which would allow non-Microsoft work group servers to achieve full interoperability with Windows PCs and servers.

In 2008, the British Educational Communications and Technology Agency (BECTA) forwarded a complaint to the EC regarding the lack of compatibility between Microsoft's OOXML document standard⁶⁸² and alternative codes, such as ODF. BECTA stated that Microsoft supported its own technical protocols far better than it supported the industry standard ones, which required users to install converters to enable them to interoperate with those competitor products.^{683, 684}

In February 2008, MS was fined by the EC for failing to provide timely and adequate information about the interoperability of its workgroup server products, as the Commission had ordered in its March 2004 antitrust ruling.

Hence, MS applied this approach successfully. A counterargument could be that MS applications seem to integrate with several large market parties like CRM/ERP providers Salesforce, SAP and Oracle. However, from the perspective of a third-party vendor, it is

⁶⁸⁰ United States v. Microsoft Corp., 253 F.3d 34 (D.C. Cir. 2001).

⁶⁸¹ Statcounter, Browser Market Share worldwide, July 2020, <https://gs.statcounter.com/browser-market-share>

⁶⁸² This zipped, XML-based file format was developed by Microsoft for representing spreadsheets, charts, presentations and word processing documents. Its later versions were standardised by the ISO and IEC (as ISO/IEC 29500).

⁶⁸³ <https://www.privacycamp.eu/book/export/html/1499.html>

⁶⁸⁴ <https://www.cio.com/article/2436343/microsoft-faces-another-interoperability-complaint-in-europe.html>

understood that the integration level between their applications and MS user interfaces is not as deep as what MS is offering itself.

It is interesting to consider how this cooperation is done. Salesforce is the clear market leader in the CRM and Customer service application segment – the only two market segments where MS is not really present. MS announced in November 2019 a partnership with CRM vendor Salesforce.⁶⁸⁵ In this partnership, Salesforce Marketing cloud services will use more MS IaaS services and Salesforce will build ‘connectors’ that link their Sales cloud services and Service cloud services to MS’s Teams chat and collaboration functions. The partnership would also extend to other product groups of MS such as productivity suites, analytics, AI, as well as joint go-to-market efforts. An important factor in this regard is the sales message to customers that integration between MS and the third-party vendor is ensured by this partnership.

Hence, Salesforce seems to get access to certain integration features so that it can offer its customers a higher level of integration, while MS gets more IaaS business and still keeps control over the User Interface via its Teams application and the other Office applications. Despite Salesforce’s leading market position it obviously needs to partner with MS to ensure a higher level of integration with its application and in exchange needs to shift a part of its IaaS purchasing with other vendors to MS (also due to the strong demand for MS Azure cloud services, which might strengthen their overall proposition when bundled). This reflects the dependency of even large companies on MS. In this partnership, MS not only further cements its user interface but it also gets parts of the Infrastructure-related business from Salesforce. However, MS is still a competitor of Salesforce in the CRM segment and it is unclear what might happen if MS’s market position in this segment becomes stronger at the expense of Salesforce.

Large supplier SAP also has a partnership with MS with respect to integrating its application with MS Office services, Office 365 for SAP⁶⁸⁶. Furthermore, SAP announced in October 2019 a partnership with MS, whereby both parties offer their customers a combination of SAP ERP applications and MS Azure cloud services⁶⁸⁷. However, SAP also is a partner with cloud providers Google and Amazon Web Services. SAP de-emphasised its own-brand cloud offering.⁶⁸⁸

In addition to these predefined connectors to MS by vendors of CRM/ERP software, customers can also use third parties like Layer2, specialised at building so called ‘connectors’ between MS applications and third-party software.⁶⁸⁹

It seems that in all these partnerships and application of APIs, MS still controls the User Interface being its Office applications and/or its collaboration tool Teams. In addition, it is noted that despite the fact that MS has its Interoperability Program, and therefore should have open APIs for all of its high volume services (including server, office product and SharePoint), obviously large market parties have to arrange partnerships to develop integration between their applications and MS applications. This indicates that the current ‘openness’ of MS does not seem sufficient for a third-party vendor to guarantee the same level of integration MS offers its customers.

For the near future, considering the market shifting to SaaS, it is not clear whether APIs for the MS Office cloud variants are more open or closed compared to APIs for MS’ traditional (non-cloud) Office applications.

⁶⁸⁵ Redmond article 15 November 2019, Kurt Mackie, <https://redmondmag.com/articles/2019/11/15/salesforce-microsoft-azure-and-teams.aspx>

⁶⁸⁶ https://www.sapappcenter.com/en/product/display-0000006729_live_v1#!overview

⁶⁸⁷ <https://news.sap.com/2019/10/sap-microsoft-partnership-cloud-migration-offerings/>

⁶⁸⁸ <https://www.cnbc.com/2019/10/21/sap-in-three-year-cloud-partnership-with-microsoft.html>

⁶⁸⁹ <https://www.layer2solutions.com/>

v. Solutions and impacts

From the LinkedIn case, the guiding principle seemed to be that the integration of a (acquired) product in the MS bundle of products could have an anticompetitive effect when it dramatically increases visibility for the end user and enables leverage for the new/additional product by accessing MS's installed base. This seems to apply as well for the 'new' user interface Teams/SharePoint.

From the Sun case, there is an obligation on MS to provide open interfaces to enable third-party integration with MS's operating system for PCs for work group server communication. The question is whether this is sufficient for the integration of all third-party applications or that MS should have an obligation to open its APIs in general. Further investigation is warranted as to whether the issue is only for document formats or for communication protocols and/or for which MS products (e.g. Teams seems to be excluded from MS's IOP principles).

EDRi proposal

The European Digital Rights (EDRi) association proposed in the wider debate around the Digital Services Act to curb the highly centralised online ecosystem around a few dominant players by obliging them to maintain a 'link' with other online ecosystems.⁶⁹⁰ This interoperability would guarantee the option for end users to leave a certain online ecosystem without losing their data and the ability to contact people in the old ecosystem. This approach is geared towards online social platforms like Facebook and Twitter where historic conversations, contacts and/or transactions are valuable for the user beside the network effect⁶⁹¹.

In the case with MS, it is not about interoperability and/or data portability between networks but about the stronghold it has on productivity and collaboration applications and user interfaces with which millions of people are familiar. MS uses this stronghold to push its other applications by bundling these with leading applications and in exchange offer end customers the insurance that the third-party application integrates well with MS applications. To ensure an open architecture where also (smaller) third-party applications can survive and develop an open architecture is important including the interfaces to the dominant player Microsoft. What can be learnt from EDRi's action is how political pressure is being built up.

⁶⁹²

Open access and MS own initiatives

Open APIs were already obliged for MS following the European Commission's Decision of 24 March 2004 for work group servers. This included as well sufficient documentation and timely notification of changes so that third parties can update their applications accordingly to warrant the integration between these and MS applications. However, MS has not always complied and was fined accordingly. Furthermore, it is observed in the market that even large parties like Salesforce and SAP agree to partnerships with MS to ensure the integration between their applications and MS applications. This is an indication that MS applications are not completely open yet, which was confirmed by a third-party vendor interview in August 2020. MS offers a 'deeper' level of integration between its UI and its own applications and databases, compared to what the third-party vendor can offer in combination with MS Teams.

⁶⁹⁰ www.edri.org

⁶⁹¹ The larger the online network the more attractive it becomes for new users as more people can be reached for the new users and vice versa. A new online platform without a large existing customer base does not have this advantage.

⁶⁹² EDRi, Article 3 July 2019, <https://edri.org/tag/eff/>

Below is a description of what MS itself states on its website that it has done to ensure integration and interoperability with its applications. After the European Commission's Decision of 24 March 2004, Microsoft has created the Workgroup Server Protocol Program (WSPP) to "...meet the obligation to make protocol technology available to relevant undertakings and allow the use of its technology."⁶⁹³ MS also published Interoperability Principles in February 2008. These are technical specifications for protocols for its high-volume products (Windows Vista (including .NET Framework), Windows Server 2008, Microsoft Office 2007, Microsoft Office SharePoint Server 2007, Exchange Server 2007, Microsoft SQL Server 2008, and future versions of each of these products).⁶⁹⁴

MS has committed to the following principles:

- Open access to all high-volume MS products
- Support for standards
- Data portability
- Open engagement

In effect, MS commits that for all its high-volume products all the protocols and APIs used by other MS products will be made openly available to the developer community in a non-discriminatory fashion, that it will publish the documentation, and will not use patents in protocols to obstruct this.⁶⁹⁵

Furthermore, MS is active in standards bodies, contributing to the development of new standards and the improvement of existing standards. When standards are adapted it will communicate to developers how it is working towards broad compatibility. If standards are extended in MS products, this will be documented and shared as well on its website.

MS also ensures data portability and to provide related documentation meaning that data stored in MS products can be accessed in a form that permits its use in other software products. This is done in the following manner:

- By complying with industry standards and open standards (offered to a standard-setting organisation for standardisation or made available to enable independent implementation by the developer community).
- By providing "import" and "export" functions in various products that enable the transfer of user data from one application to another.
- By letting customers choose their default data formats in the MS products. Additional document formats are also supported.
- Microsoft has created an Interoperability Forum for discussing and addressing interoperability-related issues of importance to customers around the world.

Again, further investigation seems warranted to clarify which integration features MS offers its own customers using both MS user interfaces and all underlying applications but is not enabling third-party vendors either integrating their UI with underlying MS applications and databases (e.g. Slack) but also third parties integrating their applications and databases (like SAP, Salesforce, Oracle) with MS user interfaces.

This could be in the area of document formats and conversion, communication protocols with MS products and integration of functions/ triggering mechanisms. In addition, this should be

⁶⁹³ https://docs.microsoft.com/en-us/openspecs/dev_center/ms-devcentlp/5f4fc8ba-f448-4b05-968e-df51c60eaf8?redirectedfrom=MSDN

⁶⁹⁴ https://docs.microsoft.com/en-us/openspecs/dev_center/ms-devcentlp/d84cac00-b312-44ee-9156-23bde6477c3d

⁶⁹⁵ See also MS Open specifications, <https://docs.microsoft.com/en-us/openspecs/main/ms-openspeclp/3589baea-5b22-48f2-9d43-f5bea4960ddb>

examined for the exact combinations of MS products (e.g. MS Teams seems to be excluded from MS's IOP principles).

Salesforce.com Inc. buys Slack

On December 1st 2020 Salesforce, the leading market player in the CRM announced to buy Slack.⁶⁹⁶ The volume of the trade is approx. \$27.7 bn in cash and stock. With this acquisition Salesforce strengthens its portfolio with Slack's workforce communication solutions. From Slack's point of view, this merger likely ensures the interoperability of Salesforce's CRM solutions with Slack's workforce platforms. This move should strengthen Slack's product portfolio and lessens the dependency on MS's APIs. While the merger is expected to be closed by the end of July 2021, it will be difficult to reliably project the influence on MS's strategic response as well as market outcomes at this moment in time.

k. Case 10: Switching costs/lock-in (AirBnB and eBay)

i. What is the problem/s associated with this case?

Data is a valuable raw input for data-intensive business models in the digital economy and only a few digital firms are in a unique position to collect it. Against the background that the collection of data typically is concentrated, the question arises what implications this has for competition. Depending on the role of data for a business case and for competition, newcomers and start-ups may need access to the required data to be able to compete with incumbents on the basis of knowledge and insights generated from these raw inputs. Related to this is the question whether data portability increases the competitiveness on digital markets. The focus in this case lies in reputation portability which is discussed in the following chapters for the examples of AirBnB and ebay.

User reviews of products/sellers on market place platforms are a critical determinant of inter-platform competition, as a large number of consumers base their purchasing choices on the related reviews written by other users.⁶⁹⁷ The network effects between the number of reviews and new users give a sustainable competitive advantage to incumbent platforms.⁶⁹⁸

Online feedback helps consumers make a more informed choice and has contributed to building trust in otherwise risky trading environments. Further, online reviews are useful for businesses to build their reputation and brand, for customer acquisition and retention, product development and quality control, and supply chain quality assurance.⁶⁹⁹ The case studies analysed here focus on reviews provided by users on digital market places and not on review platforms or reviews on the site of manufacturers.

Summary:

AirBnB is the third largest digital platform for accomodation exchange after booking.com and Expedia:

- It has an increasing number of commercial providers of accommodation and an increasing number of business travellers (from 14% in 2015 to 29% in 2018).

⁶⁹⁶ Bloomberg (2020): <https://www.bloomberg.com/news/articles/2020-12-01/salesforce-agrees-to-buy-software-maker-slack-for-27-7-billion>

⁶⁹⁷ See Kathuria, V.; and Lai, J.C. (2018): User review portability: Why and how? Computer Law & Security Review, The International, Journal of Technology Law and Practice, <https://doi.org/10.1016/j.clsr.2018.05.018>.

⁶⁹⁸ Haucap

⁶⁹⁹ See Kathuria, V.; and Lai, J.C. (2018): User review portability: Why and how? Computer Law & Security Review, The International, Journal of Technology Law and Practice, <https://doi.org/10.1016/j.clsr.2018.05.018>.

- It actively matches demand and supply to maximise the number of transactions and hence its revenue (via transaction fees).
- It also features a review system of both provider and guest.

In terms of eBay:

- It is the main online marketplace in Europe.
- The feedback system is only available for P2P sales.
- E-commerce has continued to increasing over time, however growth of eBay has flattened as the markets are getting saturated.
- Third-party sales dominate on eBay with 80% of the volume.

On both platforms, reviews of (non-commercial) sellers and buyers are crucial for the trustworthiness of both parties, and can impact transactions. Consumers active on these platforms therefore would like to maintain this feedback and related status and therefore would not easily switch to an alternative platform. In addition, larger e-commerce platforms will generate more reviews and therefore could create a higher switching barrier.

Data portability of reviews and seller/buyer status could be a solution.

ii. Legal context

The Furman Report⁷⁰⁰ identifies the loss of reputation as a limitation to switching.

“Endorsements such as consumer feedback, ratings or trust scores can be very important to independent businesses operating through online platforms”.

We have not identified competition cases that are directly relevant for this issue.

More generally, in relation to data access, such remedies have been adopted in only a small number of national antitrust cases to date, generally involving the sharing of customer lists to enable rivals to promote new services. Other cases relate to mergers in which the European Commission considered whether combining two datasets (horizontally or vertically) could limit competition in the markets concerned. These cover acquisitions by Apple, Google and Microsoft, which were however found to be unproblematic from this point of view.

iii. Characteristics of the platform concerned

AirBnB

AirBnB is an online marketplace which provides a platform for vacation rentals. It provides a transaction platform imposing terms and conditions on the P2P transaction through its terms & conditions, for example with mandatory standards of service (including super host and business travel standards), payment procedures and its refund and insurance mechanisms. AirBnB collects revenues through transaction fees, from the peer provider and peer consumer. The platform also is involved in managing the transactions by providing trust-generating tools and pricing suggestions.⁷⁰¹

AirBnB is a privately-owned and operated company, based in the US. It was founded in 2008 in San Francisco, USA by Joe Gebbia, Brian Chesky and Nathan Blecharczyk. Gebbia and Chesky wanted to earn additional revenue by renting out three air mattresses and serving

⁷⁰⁰ J. Furman, D. Coyle, A. Fletcher, D. McAuley and Ph. Marsden, *Unlocking Digital Competition*, March 2019, p. 36 <https://www.gov.uk/government/publications/unlocking-digital-competition-report-of-the-digital-competition-expert-panel>

⁷⁰¹ VVA, Millieu and GfK (2017): Exploratory study of consumer issues in online peer-to-peer platform markets, Task 4 – Case study: AirBnB, https://ec.europa.eu/newsroom/just/item-detail.cfm?item_id=77704.

guests breakfast in their flat. This was done through a simple blog website, which later became AirBnB.⁷⁰²

Table 41. Main digital platforms for accommodation exchanges

Table 1. Main Digital Platforms for Accommodation Exchanges

Platform	Founded	Listings	Geographical spread	Guest stays
P2P accommodation				
Booking.com	1996	5 million*	226 countries	n/a
Airbnb	2008	4.85 million	191 countries	200 million guests total
HomeAway (owned by Expedia)**	2005	2 million	190 countries	n/a
TripAdvisor Rentals***	2009	830,000	200 countries	n/a
Tujia	2011	300,000	China	n/a
gflats.com	2011	250,000	140 countries	n/a
Homestay.com	2013	50,000	160 countries	750,000 room nights total
OYO Rooms	2013	8,500	India	40 million room nights total
Onefinestay (owned by AccorHotels)	2009	2,500	United States, Europe, Australia	n/a
Xiaozhu	2012	250,000	China	n/a
Reciprocal accommodation exchanges				
GuestToGuest	2011	280,000	197 countries	n/a
Love Home Swap (owned by Wyndham)	2009	100,000	140 countries	n/a
HomeExchange (owned by GuestToGuest)	1992	67,000	150 countries	135,000 home swaps (2016)
Free accommodation exchanges				
Couchsurfing	2004	400,000 hosts	200,000 cities	4 million guests per year
Trustroots	2014	6,000 hosts	n/a	n/a
WarmShowers	1993	61,000 hosts	161 countries	n/a
BeWelcome	2007	35,000 members	n/a	n/a

Sources: Platform websites as of December 2017.

* Booking.com has a total of 27 million listings, of which 5 million are classified as alternative or non-hotel accommodation.

** The HomeAway portfolio includes HomeAway.com, VRBO.com, and VacationRentals.com

*** The TripAdvisor Rentals portfolio includes FlipKey, HolidayLettings, HouseTrip, Niumba, and Vacation Home Rentals.

Source: The World Bank Group (2018). Tourism and the Sharing Economy: Policy & Potential of Sustainable Peer-to-Peer Accommodation, <http://documents1.worldbank.org/curated/en/161471537537641836/pdf/130054-REVISED-Tourism-and-the-Sharing-Economy-PDF.pdf>.

In Europe, AirBnB in May 2011 acquired Accoleo in Hamburg. Through Accoleo, AirBnB became available in Hamburg and in 10 cities across Germany, Switzerland and Austria. In October 2011, the platform launched an office in London, and in early 2012, AirBnB opened offices in Paris, Milan, Barcelona and Copenhagen, as well as in Moscow and Sao Paulo. Throughout the year, the platform expanded further with offices in Australia and Singapore.⁷⁰³

Today, AirBnB is a platform where peer providers can rent out their accommodation and peer consumers can book privately or professionally run accommodation.

⁷⁰² <https://news.airbnb.com/>.

⁷⁰³ VVA, Milieu and GfK (2017): Exploratory study of consumer issues in online peer-to-peer platform markets, Task 4 – Case study: AirBnB, https://ec.europa.eu/newsroom/just/item-detail.cfm?item_id=77704.

Peer consumers and peer providers can access the platform in all EU Member States. The platform also includes accommodation from B&Bs, hostels and holiday rental agents as it is open to private and commercial accommodation providers.

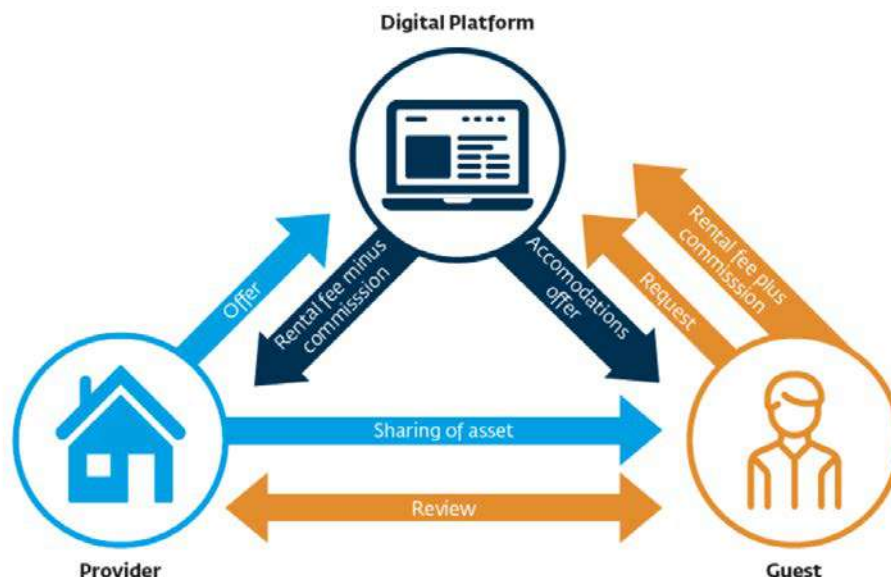
The initial idea was to use accommodation sharing as an opportunity to allocate existing, underused assets. The character of the platform has changed as an increasing number of commercial providers use the platform so that the accommodation sharing is complemented by commercial rental of real estate.

Like other accommodation platforms, AirBnB does not own the accommodation listed on the platform, but it creates a marketplace. The cost structure, therefore, differs from conventional accommodation providers with significantly lower marginal costs than in conventional accommodation businesses. Capital investment mainly concerns software development, public relations and community trust-building and is low compared to conventional accommodation provision which requires the acquisition and maintenance of property.⁷⁰⁴

As in other online marketplaces one of the most relevant aspects of AirBnB's business model is that it must attract both sides of the market (peer providers and peer consumers). The objective is to maximise the number of transactions by actively matching demand and supply through search functions/filters and additional features such as an instant messaging system.

AirBnB features a review system in which guests and hosts can rate each other after a stay. The reviews can only be seen by both sides when both have submitted a review. This system aims to remove fears that users will receive a negative review in retaliation if they write one. However, users may fear being refused by hosts in the future if they generally leave negative reviews so that there are doubts on the truthfulness and objectivity of reviews. Users may also prefer to stay anonymous and are more reluctant to leave negative reviews if they are not allowed.⁷⁰⁵

Figure 180. P2P accommodation ecosystem



⁷⁰⁴ The World Bank Group (2018). Tourism and the Sharing Economy: Policy & Potential of Sustainable Peer-to-Peer Accommodation, <http://documents1.worldbank.org/curated/en/161471537537641836/pdf/130054-REVISED-Tourism-and-the-Sharing-Economy-PDF.pdf>.

⁷⁰⁵ VVA, Millieu and GfK (2017): Exploratory study of consumer issues in online peer-to-peer platform markets, Task 4 – Case study: AirBnB, https://ec.europa.eu/newsroom/just/item-detail.cfm?item_id=77704.

Source: The World Bank Group (2018). Tourism and the Sharing Economy: Policy & Potential of Sustainable Peer-to-Peer Accommodation, <http://documents1.worldbank.org/curated/en/161471537537641836/pdf/130054-REVISED-Tourism-and-the-Sharing-Economy-PDF.pdf>.

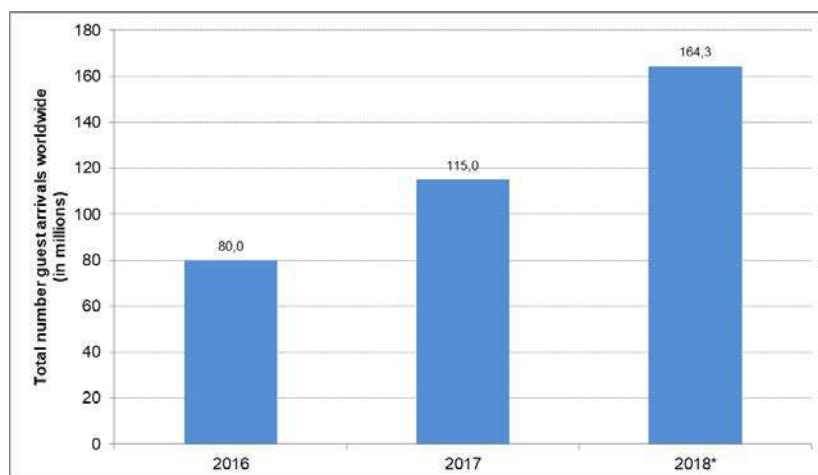
As of late 2016, AirBnB began introducing services that expanded its scope from simply hosting a transaction platform for accommodation to creating a “customised travel experience”, including offers of activities ("experiences") at destination. Another element of diversification is the introduction of the business travel option so that apart from leisure travellers business travellers are included in the target group. Finally, AirBnB introduced the co-hosting service also generates new revenues for peers and the platform. In March 2019 AirBnB acquired HotelTonight. HotelTonight is a hotel-booking service focused on last-minute trips offering travellers seamless, on-demand booking for boutique and independent hotels. AirBnB plans to build an end-to-end travel platform that combines where you stay, what you do, and how you get there, all in one place.⁷⁰⁶

AirBnB generates revenues mainly through transaction fees and fees for add-on services. The fees are based on the price of the listing:

- ≤ 14.2 % transaction (or “service”) fee for peer consumers, withheld from the funds that peer consumers pay to peer providers.
- 3% booking fee for peer providers, subtracted from their listing price.
- The host-only fee ranges from 14% to 20% (plus 2% for listings that have a Super Strict cancellation policy) and is the required fee structure for hotels and some other categories of hospitality business.
- Hosts of experiences pay a service fee of 20%.⁷⁰⁷

The AirBnB platform is used worldwide and the total number of AirBnB guest arrivals increased from 80.0 million in 2016 to 164.3 million in 2018.

Figure 181. Total number of Airbnb guest arrivals worldwide from 2016 to 2018 (in millions)



Source: WIK based on Statista.

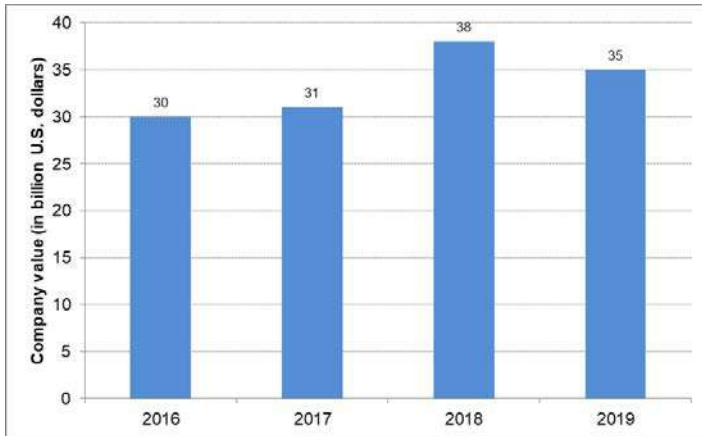
⁷⁰⁶ <https://news.airbnb.com/hoteltonight-and-airbnb-finalize-acquisition/>

⁷⁰⁷ The host-only fee structure was created so that hotels and other hospitality businesses have more control over the final price paid by guests. https://www.airbnb.com/help/article/1857/what-is-the-airbnb-service-fee?locale=en&_set_bevev_on_new_domain=1591041885_MTK3NmRIOGJhMmRi

In August 2020, AirBnB published on its website that it has 7 million accommodation listings in over 100,000 cities in more than 220 countries, and 750 million peer consumers.⁷⁰⁸ The company had 14,384 employees and 34 offices worldwide in 2018.⁷⁰⁹

The company value is shown in Figure 182. While there was an increase of \$7 billion from 2017 to 2018, the company value decreased from \$38 billion to \$35 billion from 2018 to 2019.

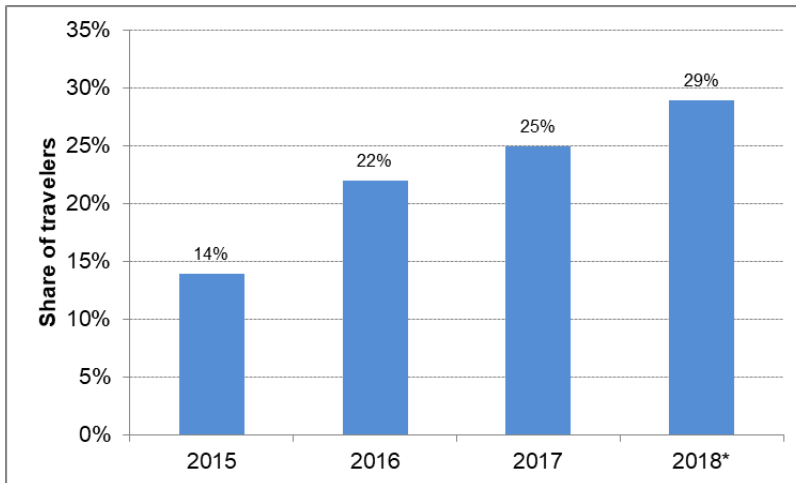
Figure 182. Company value of AirBnB from 2016-2018



Source: WIK based on Statista.

The share of leisure and business travellers using AirBnB in the US and Europe from 2015 to 2018 increased from 14% to 29%.

Figure 183. Share of leisure and business travellers using AirBnB in the United States and Europe from 2015 to 2018*



Note: Note: North America, Europe, France, Germany, United Kingdom, United States; 2015 to 2017; 18 years and older; 4,000; The survey respondents from Europe came from the UK, France and Germany

Source: WIK based on Statista.

⁷⁰⁸ <https://news.airbnb.com/about-us/>

⁷⁰⁹ <https://ipropertymanagement.com/research/airbnb-statistics>

Consumer surveys performed in France, Germany, Italy, Spain and UK on market shares of hotel online bookings show that AirBnB has become one of the largest platforms after Booking and Expedia (including HomeAway and FeWo which are owned by Expedia).⁷¹⁰

eBay

eBay is an online (re)sale platform that allows people to sell new and used items by auction or at a fixed price. It is one of the main online marketplaces in the e-commerce segment in Europe.

The eBay platform hosts peer-to-peer (P2P) transactions between private peer providers and private peer consumers as well as business-to-consumer (B2C) transactions between businesses and private peer consumers. The website is free to use for buyers, but sellers are charged fees for listing items after a limited number of free listings, and again when those items are sold.⁷¹¹

After a transaction is completed, peer consumers can leave feedback which takes the form of a rating accompanied with a comment. The feedback system is not available for classified ad listings, giving feedback is not mandatory and everyone using the platform can see the ratings, including non-members. Further, eBay put in place performance standards for sellers.⁷¹² Sellers are expected to:

- Promptly resolve customer issues.
- Post items on time, within the seller's specified dispatch time.
- Manage inventory and keep items well stocked.
- Charge reasonable P&P costs.
- Specify P&P costs and dispatch time in the listing.
- Follow through on the seller's return policy.
- Respond to buyers' questions promptly.
- Be helpful, friendly, and professional throughout a transaction.
- Make sure the item is delivered to the buyer as described in the listing.

To measure the overall performance of a seller accurately, eBay looks at the seller's performance as a whole, excluding a set number of low detailed seller ratings and cases based on the number of transactions the seller had in the last 12 months. eBay also considers a buyer's pattern for opening requests and cases and leaving low detailed seller ratings - and protects the seller when necessary.⁷¹³

E-commerce sales in the UK, in Germany, France and Italy increased from 2012 to 2017. The e-commerce sales include sales from online marketplaces where third-party sellers offer their products as well as the online websites with direct sales from retailers.

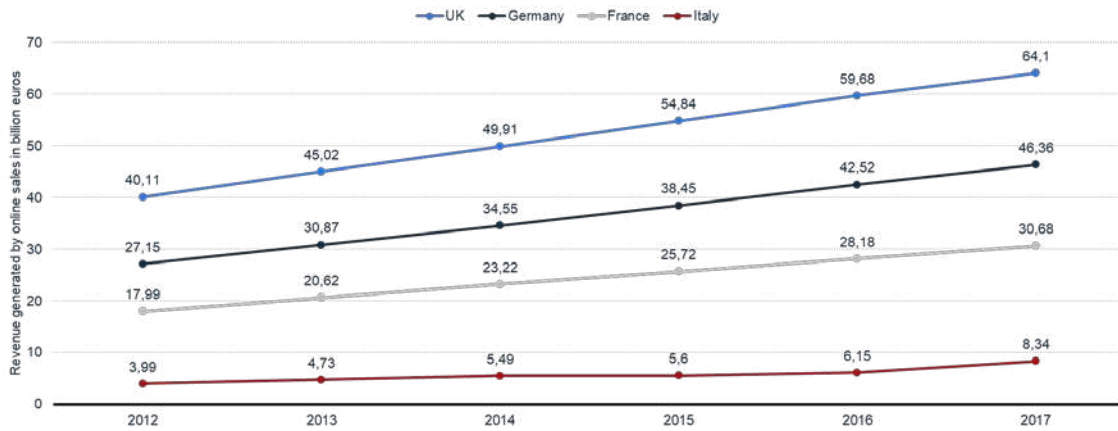
⁷¹⁰ Statista Global Consumer Survey (2020).

⁷¹¹ VVA, Milieu and GfK (2017): Exploratory study of consumer issues in online peer-to-peer platform markets, Task 4 – Case study: eBay

⁷¹² <https://www.ebay.co.uk/help/policies/selling-policies/seller-performance-policy?id=4347#section4>

⁷¹³ <https://www.ebay.co.uk/help/policies/selling-policies/seller-performance-policy?id=4347#section4>

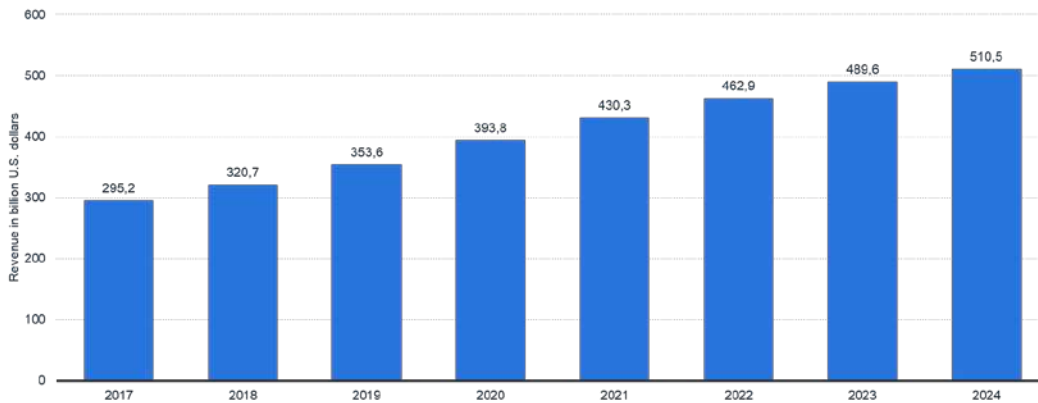
Figure 184. B2C e-commerce sales in France, the United Kingdom, Germany and Italy from 2012 to 2017 * (in billion euros)



Source: WIK based on Statista.

For Europe, retail e-commerce revenue has been forecasted to reach more than \$500 billion in 2024.

Figure 185. Europe: retail e-commerce revenue forecast from 2017 to 2024 (in billion US dollars)



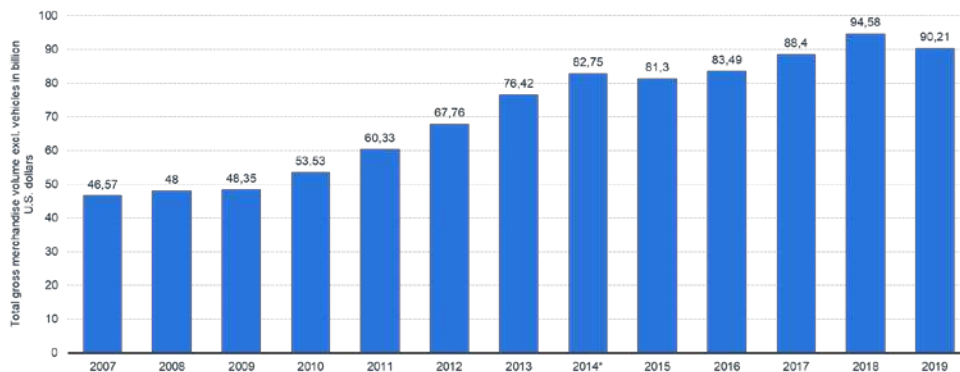
Source: WIK based on Statista.

Third party sales on online market places dominate e-commerce with 80% of the Gross Merchandise Volume (GMV) being generated by third-party sellers and 20% by direct sales.⁷¹⁴

eBay's GMV increased yearly from 2007 to 2019 except from 2014 to 2015 and from 2018 to 2019. In 2019, eBay achieved a GMV of \$90.21 million.

⁷¹⁴ Statista (2020): Online marketplaces.

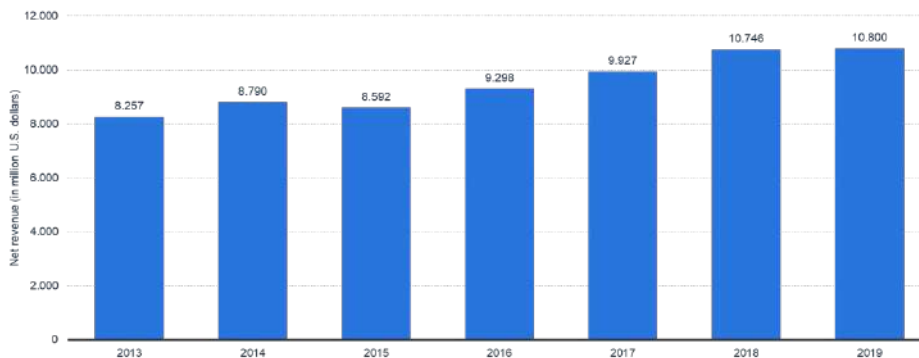
Figure 186. eBay's gross merchandise volume (GMV) from 2007 to 2019 (in billion U.S. dollars)



Source: Statista (2020): eBay Inc. Statista dossier.

The annual net revenue of eBay increased by 30% from \$8.3 million in 2013 to more than \$10 million in 2019. Other platforms have shown higher growth rates, an indication that in the regions where eBay is present the markets are more saturated. For the platform this means that growth in terms of users can mainly be achieved by attracting users from other platforms. In this context, switching barriers arising from the value of customer reviews become relevant for the contestability of the online marketplace segment.

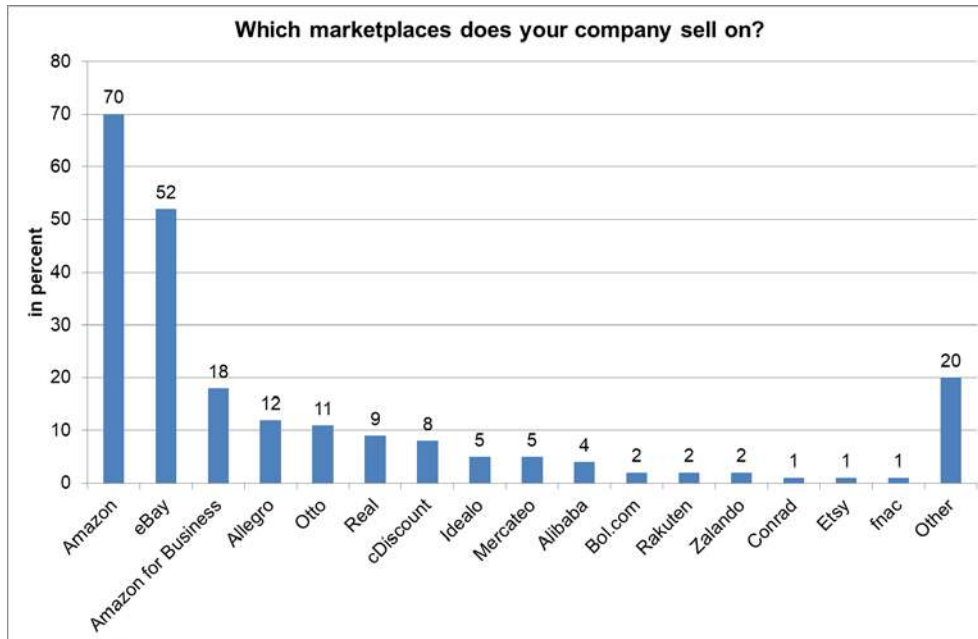
Figure 187. Annual net revenue of eBay from 2013 to 2019 (in million US dollars)



Source: WIK based on Statista.

According to a survey in France, Germany, Poland and the UK, eBay is the second largest online marketplace on which companies sell. This does not take into account the role of eBay as online marketplace for C2C sales.

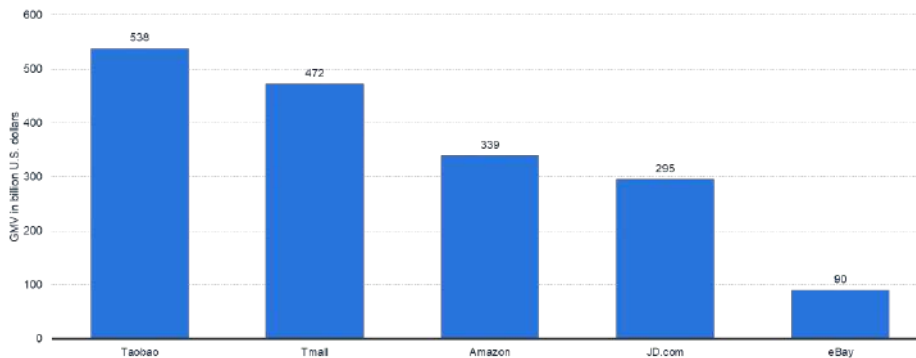
Figure 188. Market share of online marketplaces (in per cent)



Source: WIK based on Statista (2020): UPS & Statista European eCommerce Monitor 2020, region: France, Germany, Poland, United Kingdom.

Worldwide, eBay is ranked fifth as online marketplace in terms of GMV although eBay addresses smaller markets than the other online marketplaces.

Figure 189. Most popular online marketplaces worldwide in 2019, based on gross merchandise value (in billion US dollars)



Source: Statista (2020): Online marketplaces.

iv. Evidence of the problem and associated harms

Reviews are used to build reputation. Furthermore, AirBnB uses peer reviews and ratings to award “Super Host” badges and to promote or relegate listings with good or bad reviews in the search results that peer consumers see. Peer providers do not want to lose the qualification as super host as well as other ratings applied by the platform based on indicators such as response and commitment rate, number of completed tasks and the rating received from peer consumers. For providers of accommodation using the platform, the reputation they have acquired on AirBnB may represent a switching barrier when they are considering using an alternative accommodation platform. In addition, they have a strong incentive to use several platforms to maximise the customers they reach over online

accommodation platforms. From the perspective of new platforms which try to enter the market or of smaller platforms trying to compete with the incumbents in the market, the value of customer reviews may prevent users from using alternative platforms and in consequence the alternative platforms become unattractive for peer providers.

Further, AirBnB allows peer consumers to customise their account and gathers valuable data about their plans and interest. These include a personal wish list of listings, and a personal trips list for past and upcoming trips. AirBnB proposes activities (e.g. fairy-tale cottages, windmills, etc.), offers free guidebooks with popular sights, restaurants or activities at the destination and local activities at the destination ("experiences") from local providers.

On auction platforms such as eBay, the user's reputation is also highly relevant and results in switching costs. Being a function of the number of transactions already conducted over the platform, the user's reputation is typically platform-specific (e.g. for eBay), so that changing platforms involves high switching costs because it is difficult – if not impossible – to transfer one's reputation from one platform to another.⁷¹⁵

The reputation created by peer reviews plays an important role for the peer providers in particular. Online customer reviews are an important element of marketing for sellers to increase their sales. There are a number of empirical studies which have analysed the impact of online recommendations on sales and the results show that online reviews influence the purchasing behaviour of consumers.⁷¹⁶ A survey of SMEs in 10 Member States performed for the European Commission showed that more than half of the companies believe that their company's reviews on these online platforms have a significant impact on their sales.⁷¹⁷

With reference to the gatekeeper role of an online marketplace due to customer reviews, it is important to take into account that a higher number of reviews gives more credibility and influence to the online marketplace.⁷¹⁸

Large platforms such as AirBnB and eBay have a greater number of customer reviews as they have more traffic and users than smaller platforms. Other things being equal, users will prefer a platform that has a larger number of reviews. Consequently, this leads to network

⁷¹⁵ Haucap, J. (2019): Competition and Competition Policy in a Data-Driven Economy, *Intereconomics* 54, pp. 201–208, <https://doi.org/10.1007/s10272-019-0825-0>.

⁷¹⁶ von Helversena, Bettina, Abramczuk, Katarzyna Kopeć, Wiesław Nielek, Radosław (2018): Influence of consumer reviews on online purchasing decisions in older and younger adults, in: *Decision Support Systems*, Volume 113, pp. 1–10, <https://www.sciencedirect.com/science/article/pii/S0167923618300861>; Garfinkel, R. and Gopal, R. and Pathak, B. and Venkatesan, R. and Yin, F. (2006): Empirical Analysis of the Business Value of Recommender Systems, <https://ssrn.com/abstract=958770>; Spiegel Research Center (2017): How Online Reviews Influence Sales \ Evidence of the Power of Online Reviews to Shape Customer Behavior, https://spiegel.medill.northwestern.edu/_pdf/Spiegel_Online%20Review_eBook_Jun2017_FINAL.pdf.

⁷¹⁷ European Commission (2016): Flash Barometer 439, The use of online marketplaces and search engines by SMEs, https://ec.europa.eu/information_society/newsroom/image/document/2016-24/fl_439_en_16137.pdf.

⁷¹⁸ von Helversena, Bettina, Abramczuk, Katarzyna Kopeć, Wiesław Nielek, Radosław (2018): Influence of consumer reviews on online purchasing decisions in older and younger adults, in: *Decision Support Systems*, Volume 113, pp. 1–10, <https://www.sciencedirect.com/science/article/pii/S0167923618300861>; Garfinkel, R. and Gopal, R. and Pathak, B. and Venkatesan, R. and Yin, F. (2006): Empirical Analysis of the Business Value of Recommender Systems, <https://ssrn.com/abstract=958770>; Spiegel Research Center (2017): How Online Reviews Influence Sales \ Evidence of the Power of Online Reviews to Shape Customer Behavior, https://spiegel.medill.northwestern.edu/_pdf/Spiegel_Online%20Review_eBook_Jun2017_FINAL.pdf.

effects that increase the utility of large online platforms such as AirBnB and eBay for new users. Thus, if the same product were listed on several platforms (including a lesser-known/new platform), lesser-known and new platforms would attract more users if the reviews of the product were available there as well.⁷¹⁹

v. Solutions and impacts

When discussing the possible solutions, in particular the implementation of data portability, among others it is important to take into account how data was acquired, i.e. to differentiate between volunteered, observed and inferred data.

Volunteered data is explicitly and intentionally revealed by a user, for example when registering in a platform, for example the name and birthday or a post, tweet or rating submitted, or an image or video uploaded.

Observed data is gathered from the usage of a device, website or service. In contrast with volunteered data, where the consumer usually is aware of the data he provides to a platform, in the case of observed data, the user may or may not be aware that such data is collected. Observed data included, for example, clicks on products, purchase histories and geo-locations gathered by GPS sensors in smart phones.

When volunteered and observed data is refined and combined, e.g. through use of data analytics such as clustering, filtering or prediction, this results in inferred data. Inferred data for example can be used to generate a preference profile of a consumer or a recommendation for website users.

The distinction between volunteered, observed and inferred data is important in the context of data portability discussions because the options available for data portability also depend on who owns the data which is intended to be ported to alternative platforms.

Data portability however does not solve network effects which are not data-induced (e.g. value of being on a platform used by other users) or which are related to data analytics.

Annex 5. Benchmarking of solutions

a. Germany – bill for the 10th amendment of the Competition Act

i. Context and problem definition

The German federal government has set itself the goal of creating a regulatory framework that meets the requirements of digitisation and globalisation of the economy.

The government bill for the 10th amendment to the German Competition Act (GWB-Digitalisierungsgesetz)⁷²⁰ states that the experience gained by the competition authorities and the academic community allow “a moderate modernisation” of the provisions governing abuses of market power, in order to better capture and effectively end such abuses, “especially by digital platforms”.

In particular, Section 19a GWB would introduce a new provision that could be applied to undertakings that have “paramount significance for competition across markets”.

This provision is aimed at a small group of companies which not only often hold a dominant position in individual platform or network markets, but which also have resources and a strategic position to exert considerable influence on business activities of third parties or to expand their activities to an increasing number of new markets and sectors.

According to the bill, the inherent economic features of the digital economy (network effects, economies of scale and scope, data advantages) result in increased opportunities for vertical and conglomerate exploitation of economic power, which currently cannot be adequately addressed by the existing rules on the abuses of dominance.

Several studies show that there is a consensus about gaps in the current regulatory framework for large digital platforms but not about instruments to address them.⁷²¹

In Germany, the bill was preceded by:

- recommendations of the Commission of Experts on Competition Law 4.0 for the further development of EU competition law in the light of the digital economy⁷²²; and
- a study, commissioned by the Federal Ministry for Economic Affairs and Energy (BMWi), which reflected on appropriate future approaches to abuses of dominance in the digital economy⁷²³.

The bill also addresses the need for quick antitrust interventions in view of the dynamic nature of digital markets. Therefore, it would also allow the national competition authority

⁷²⁰ GWB-Digitalisierungsgesetz, government bill of 9 September 2020 www.bmwi.de/Redaktion/DE/Downloads/Gesetz/gesetzentwurf-gwb-digitalisierungsgesetz.pdf?__blob=publicationFile&v=6. On 30 November 2020, the bill was before the Bundestag’s Committee on Economic Affairs and Energy.

⁷²¹ Interview notes, the German Federal Ministry for Economic Affairs and Energy (BMWi), 7 August 2020.

⁷²² Bericht der Kommission Wettbewerbsrecht 4.0, *Ein neuer Wettbewerbsrahmen für die Digitalwirtschaft*, 9 September 2019

<https://www.bmwi.de/Redaktion/DE/Publikationen/Wirtschaft/bericht-der-kommission-wettbewerbsrecht-4-0.html>. Summary in English

https://www.bmwi.de/Redaktion/EN/Downloads/a/a-new-competition-framework.pdf?__blob=publicationFile&v=2

⁷²³ Heike Schweitzer, Justus Haucap, Wolfgang Kerber, Robert Welker, *Modernising the law on abuse of market power: Report for the Federal Ministry for Economic Affairs and Energy (Germany)*, 17 September 2018 https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3250742

(NCA), Bundeskartellamt, to order interim measures where necessary for the protection of competition, rather than only in case of urgency.⁷²⁴

The previous 9th amendment of GWB in 2017 already specified that a relevant market can exist even if the product or service is provided free of charge, by setting out additional factors for assessing market power that are particularly relevant for multi-sided markets⁷²⁵:

- direct and indirect network effects;
- economies of scale resulting from network effects;
- multi-homing (using different platforms for the same purpose);
- access to data that is relevant for competition; and
- innovation-driven competition.

The 10th amendment would add that an intermediary role may result in a position of power susceptible to abuse, which would be explicitly recognised by Section 18(3a) GWB on the abuses of dominance.⁷²⁶ *“When assessing the market position of an undertaking acting as an intermediary in multi-sided markets, account should be taken in particular of the importance of the intermediary services it provides for access to supply and sales markets”*.

(The 9th amendment also introduced alternative merger notification thresholds based on the size of the transaction.⁷²⁷ These intend to catch acquisitions of companies which, in spite of their limited sales – on which the traditional merger notification thresholds are based – have potential market power that is reflected by their market value).

ii. Objective of regulatory intervention

The bill contributes to the creation of a regulatory framework which is tailored to the requirements of the digitisation of the economy in accordance with the specifications of the German federal government's implementation strategy for shaping the digital transformation⁷²⁸.

The main objective of the proposed new Section 19a GWB is to address anticompetitive leveraging practices by undertakings whose dominance is entrenched.⁷²⁹

This provision would be complemented by the proposed amendments of Section 20 GWB that would among other things:

- allow an early intervention below the dominance threshold in unfair practices that may lead to inefficient market tipping; and
- explicitly refer to the possibility that companies' market access is dependent on intermediary services.

Table 42. Conceptually, the evolution of the digital markets could be divided in three phases⁷³⁰

Market phase	Legal basis for intervention by the NCA
<p>1: “Race to market”</p> <p>Below the threshold of dominance.</p> <p>Tipping may be efficient because of inherent economic features of the market (network effects, economies of scale and scope)⁷³¹.</p>	<p>Filling a gap</p> <p>The proposed new Section 20(3a) GWB on Prohibited Conduct of Undertakings with Relative or Superior Market Power, which would apply:</p>

However, there is a need to intervene in unfair strategies that obstruct competitors from achieving positive network effects (e.g. unfair impediment of multihoming).

- beyond small and medium-sized companies (the current scope of Section 20(3) GWB)
- both vertically and horizontally.

The provision would require showing a serious risk of a considerable restriction of competition on the merits.

2: Dominance

No gap

Article 102 TFEU

3: Entrenched dominance

Filling a gap

Proposed new Section 19a GWB

iii. Threshold for intervention

Section 19a GWB is intended to enable the NCA to exercise more effective control over those large digital groups which are of paramount significance for competition across markets.

The provision targets companies which often not only hold a dominant position in individual platform or network markets⁷³² but also possess resources and strategic positioning which enable them to exert considerable influence on the business activities of third parties or to expand their own business activities into new markets and sectors.⁷³³

The cross-market approach to the intervention threshold is intended to take account of the fact that digital platforms and networks can be of central importance for various markets, without necessarily having already reached the threshold of market dominance in these individual markets.⁷³⁴

Proposed Section 19a(1) GWB⁷³⁵:

The Bundeskartellamt may issue a decision declaring that an undertaking which is active to a significant extent on [multisided] markets within the meaning of Section 18(3a) is of paramount significance for competition across markets. In determining

⁷²⁴ Proposed Section 32a GWB

⁷²⁵ Section 18(3a) GWB

⁷²⁶ GWB-Digitalisierungsgesetz bill, p. 80

⁷²⁷ Section 35 GWB.

⁷²⁸

www.bundesregierung.de/resource/blob/992814/1605342/284988700922725d63a0fb95db824024/digitalisierung-gestalten-englisch-download-bpa-data.pdf?download=1

⁷²⁹ Interview notes, the German Federal Ministry for Economic Affairs and Energy, 7 August 2020 (BMW).⁷³⁰

⁷³⁰ Ibid.

⁷³¹ Section 18(3a) GWB

⁷³² Within the meaning of Section 18(3a) GWB

⁷³³ Draft GWB-Digitalisierungsgesetz, p. 84

⁷³⁴ Ibid.

⁷³⁵ Unofficial translation

the paramount significance of an undertaking for competition across markets, particular account shall be taken of:

- 1. its dominant position on one or more markets,*
- 2. its financial strength or its access to other resources,*
- 3. its vertical integration and its activities on otherwise related markets,*
- 4. its access to data relevant for competition,*
- 5. the importance of its activities for third parties' access to supply and sales markets and its related influence on third parties' business activities⁷³⁶.*

According to BMWi, the above non-exhaustive criteria can address the identified gaps, are close to competition law methodologies and could be easily enforced by a competition protection agency.⁷³⁷

They derive from studies and existing antitrust case law, and reflect a position of super-dominance that is adapted to the characteristics of the sector and the objective of preventing leverage – although there is no need to prove dominance in any given market.⁷³⁸

The clarification of the criteria would be left for the enforcement practice and appeal courts.⁷³⁹

According to the bill, it is likely that only a small number of companies would fulfil the criteria for having paramount significance for competition across markets.⁷⁴⁰ Therefore, in practice, the scope of enforcement would be narrow.

The determination would be limited in time. According to the bill, a reasonable time period would be between five and ten years.⁷⁴¹

iv. Remedies

Proposed Section 19a(2) GWB targets conduct by undertakings that fulfil the criteria for having paramount significance for competition across markets, which can be assumed to have an increased potential to cause harm to competition.⁷⁴²

Proposed Section 19a(2) GWB⁷⁴³:

In case of a declaratory decision pursuant to subsection 1, the Bundeskartellamt may prohibit such undertakings from

- 1. giving preferential treatment to their own offers over those of competitors when providing access to supply and sales markets;*
- 2. inappropriately hindering, directly or indirectly, competitors in a market in which the respective undertaking can rapidly expand its position even without being dominant, provided that the hindrance is likely to significantly impede effective competition;*

⁷³⁶ As said above, this notion of intermediary power would also be introduced as part of the standard dominance concept under Section 18(3b) GWB.

⁷³⁷ Interview notes, BMWi, 7 August 2020

⁷³⁸ Ibid.

⁷³⁹ Ibid.

⁷⁴⁰ GWB-Digitalisierungsgesetz bill, p. 85

⁷⁴¹ Ibid., p. 87

⁷⁴² Ibid.

⁷⁴³ Unofficial translation

3. *creating or raising barriers to market entry or impeding other undertakings in another way by using data relevant for competition that has been collected from the other side on a dominated market, also in combination with other data relevant for competition from sources beyond the dominated market, or demanding terms and conditions that permit such use;*

4. *making the interoperability of products or services or data portability more difficult and thereby impeding competition;*

5. *insufficiently informing other companies of the scope, quality or success of the service that is provided or commissioned, or otherwise making the assessment of its value difficult.*

This shall not apply to the first sentence point 1 and 3 to 5, if the respective conduct is objectively justified. In this respect, the burden of presenting facts and the burden of proof lie with the undertaking in question. Section 32(2) and (3) and Sections 32a and 32b shall apply mutatis mutandis. Decisions pursuant to paragraph 2 can be combined with an assessment pursuant to paragraph 1.

This exhaustive list of prohibitions is based on the recent studies and antitrust case law, although some of the prohibitions may go beyond the classic conduct addressed by article 102 TFEU and some (point 5 on information asymmetries) address new anticompetitive strategies.

According to BMWi, the prohibition of self-preferencing (point 1) is the most important remedy.⁷⁴⁴ Such conduct by a vertically integrated and/or conglomerate company that fulfils the criteria of para. 1 may have particular potential for damaging competition and contribute to the consolidation or expansion of its market power across markets.⁷⁴⁵

Point 2 is intended to prevent that companies that fulfil the criteria of para. 1 capture non-dominated markets by uncompetitive means, such as exclusivities or bundling. In contrast to the general rule under Section 19a(2) GWB, the burden of proof would be on the NCA to prove that the company's expansion is not based on competitive behaviour.⁷⁴⁶

In relation to point 3, the bill notes that in ecosystems user and other data that is relevant for competition can be collected in a dominant market, and then be used to hinder competitors in another market. This "*holds enormous potential*" for preventing innovative offers by competitors and, therefore, further consolidating the cross-market importance of a company that fulfils the criteria of para. 1.⁷⁴⁷

Point 4 would address lock-in effects and barriers to switching. In relation to interoperability, the bill notes that, in addition to procompetitive effects, mandated interoperability could also have the effect of decreasing network effects which work in favour of competitors, limiting product design options and innovation, and facilitating access to even larger pool of data by the company that fulfils the criteria in para 1.⁷⁴⁸

Point 5 would prevent companies that fulfil the criteria in para. 1 from taking advantage of the information deficit related to the performance of the services that they provide to their (often dependent) customers. Relevant information includes, for example, usage data, click behaviour and ranking criteria. In addition to making the assessment of the value of the

⁷⁴⁴ Interview notes, BMWi, 7 August 2020

⁷⁴⁵ GWB-Digitalisierungsgesetz bill, p. 88

⁷⁴⁶ Ibid.

⁷⁴⁷ Ibid.

⁷⁴⁸ Ibid., p. 89

provided service difficult, withholding such data without an objective justification may also prevent customer switching.⁷⁴⁹

The NCA could not prohibit these conduct if they are objectively justified. The burden of proof of any such justification would lie with a company that fulfils the criteria of para. 1. When considering the interests involved, the NCA should give special weigh to long-term objectives of the law to limit economic power, keep markets open and protect the competitive process over short-term efficiencies in favour of the companies that fulfil the criteria of para. 1 and consumers.⁷⁵⁰

v. Institutional set-up

The NCA would apply the proposed Section 19a GWB in two steps, which can be combined in a single decision:

- Designation of an undertaking as having paramount significance for competition across markets.
- Ordering of a prohibition(s) on that undertaking, by *"specifying the practices covered by the prohibition and the affected markets in each individual case, in accordance with the principle of proportionality"*⁷⁵¹.

The NCA is setting up a dedicated team to enforce the provision.⁷⁵²

Unlike Section 19 GWB (on the abuses of dominance, which would continue to apply in parallel), Section 19a would only be enforced in an administrative procedure. Courts could not apply it directly.

vi. Impact assessment at national level / effects on fairness choice and innovation if relevant

According to the bill, strengthening the conditions for effective competition will indirectly benefit consumers, in particular by making the abuse of market power more difficult.

In relation to innovation in the digital economy⁷⁵³, the bill notes that the creation of new products and services in existing markets, as well as new markets, is extremely fast.

The provisions in the bill aim to create the prerequisites for such innovation efforts to take place within an orderly competition law framework.

The bill estimates the NCA's annual administrative cost of enforcing the new Section 19a GWB at €527,104. This rough estimate is based on three Section 19a GWB proceedings over a period of five years, each of which occupying two full-time and two back-office employees.⁷⁵⁴

vii. Relevance to EU platform regulation

The bill amending the German (ex post) competition rules seeks to address the same or similar enforcement gaps through same or similar remedies as the planned EU ex ante tool is expected to address.

⁷⁴⁹ Ibid.

⁷⁵⁰ Ibid., p. 90

⁷⁵¹ Ibid., p. 87

⁷⁵² Interview notes, BMWi, 7 August 2020

⁷⁵³ GWB-Digitalisierungsgesetz bill, p. 67

⁷⁵⁴ GWB-Digitalisierungsgesetz bill, p. 69

In principle, if the Commission's Digital Markets Act proposals are limited to ex ante regulation, there is no normative conflict *per se* (cf. the standard EU practice of applying competition law and sector-specific regulation in parallel, for example in the telecoms sector).

Such a relationship question could arise if the Commission black listed (some of) the same conduct as Section 19a GWB *without* an objective justification or efficiency defence.

The German Monopolies Commission⁷⁵⁵ commented the proposed (draft bill of January 2020) Section 19a GWB as follows⁷⁵⁶:

The proposed provision is a far-reaching amendment which, in this form, is not based on the preliminary work of any report and which was not preceded by any public discussion. It remains to be seen how successful practical implementation of the rule will be. From the point of view of European Union law, the experience of this new provision could be informative in two ways. Where the competition authorities of the Member States or national courts have an obligation to apply Article 102 TFEU in addition to and alongside national competition law (Article 3 (1) sentence 2 regulation (EC) No 1/2003), it remains to be seen whether the revision facilitates or impedes abuse control. Where the scope of this revision goes beyond Article 102 TFEU, it remains to be seen whether it is a suitable means of effectively closing existing and possibly previously unrecognised regulatory loopholes at European Union level. In this context, the Monopolies Commission considers it advisable to gain practical experience before tackling any amendment of European legislation to this effect.

b. Netherlands – reports and government position supporting ex ante regulation of gatekeeper platforms

i. Context and problem definition

In the Netherlands, the idea of ex ante regulation of gatekeeper platforms was first put forward by Mona Keijzer, state secretary for economic affairs and climate policy, whose May 2019 letter⁷⁵⁷ to Parliament proposed measures to address "*undesirable permanent market dominance by digital platforms*". Shortly after that, the ministry issued a fact sheet⁷⁵⁸ on the topic, and in June it submitted its input⁷⁵⁹ to the European Commission's inception impact assessment.

⁷⁵⁵ The Monopolies Commission is a permanent, independent expert committee which advises the German government and legislature in the areas of competition policy-making, competition law, and regulation.

⁷⁵⁶ Biennial Report of the Monopolies Commission under § 44(1) ARC, Excerpt from Chapter I, *Control of abusive practices in the digital platform economy*, 29 July 2020, para. 80 and 130 <https://www.monopolkommission.de/en/press-releases/343-biennial-report-xxiii-competition-2020.html>

⁷⁵⁷ Letter to the Speaker of the House of Representatives of the States General, 17 May 2019 <https://www.government.nl/binaries/government/documents/letters/2019/05/23/future-proofing-of-competition-policy-in-regard-to-online-platforms/Brief+ENG.pdf>

⁷⁵⁸ Ministry of Economic Affairs and Climate Policy, *Fact Sheet – Dutch position on competition policy in relation to online platforms*, 23 May 2019 <https://www.government.nl/documents/publications/2019/05/23/dutch-position-on-competition-policy-in-relation-to-online-platforms>

⁷⁵⁹ <https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12418-Digital-Services-Act-package-ex-ante-regulatory-instrument-of-very-large-online-platforms-acting-as-gatekeepers/F535501>

In August 2019, the Netherlands Authority for Consumers and Markets (ACM) issued a discussion paper⁷⁶⁰ that supported introducing an ex ante intervention mechanism “to prevent anticompetitive behaviour by dominant companies acting as gatekeepers to the relevant online ecosystems”.

In October 2020, the Dutch and French ministries signed a joint “non-paper” regarding intervention on platforms with a gatekeeper position.⁷⁶¹

In addition to these sources, this summary of the position of the Dutch government is to a large extent based on the interview that the study team carried out in August 2020 with the Ministry of Economic Affairs and Climate Policy⁷⁶².

The issues that the ministry identified include:

- the risk of entrenched dominance, because of winner takes all/most market dynamics that create an entry barrier (network effects reinforced by data collection, economies of scale and scope), which however varies from one market to another because of substantial differences between platforms;
- some platforms having a gatekeeping position, which implies both incontestability and dependence of its users (unavoidability);
- leveraging strategies;
- ecosystem formation and lock-in (both consumers and business users);
- unreasonable access and switching conditions imposed by gatekeeper platforms; and
- ex post application Article 102 TFEU is not effective, both in terms of its objective (to address abuses of dominance with the assumption that markets will become contestable over time) and in terms of the speed of enforcement (which is slow)⁷⁶³.

ii. Objective of regulatory intervention

In order to address the issues discussed above, an authority at the EU level should be able to take action against specific gatekeeper platforms without practices having occurred that constitute an abuse of dominance under Article 102 TFEU.

Such an ex ante measure should be able to safeguard⁷⁶⁴ both:

- short-term competition by addressing the issue that users may be locked-in and dependent on gatekeeper platforms and cannot make efficient decisions (fairness objective); and
- long-term competition by ensuring that the markets do not tip (contestability objective).

⁷⁶⁰ The Netherlands Authority for Consumers and Markets, *Extension of enforcement toolkit to increase effectiveness in dealing with competition problems in the digital economy*, 2 August 2019 <https://www.acm.nl/nl/publicaties/acm-steunt-pleidooi-kabinet-voor-extra-toezichtsinstrumenten-online-platforms>

⁷⁶¹ <https://www.government.nl/documents/publications/2020/10/15/considerations-of-france-and-the-netherlands-regarding-intervention-on-platforms-with-a-gatekeeper-position>

⁷⁶² Ms Keijzer’s letter, p. 4: “A situation in which the use of a specific platform is necessary for businesses to reach their customers or for consumers to find certain products or services or equivalently... control of a competitive bottleneck”.

⁷⁶³ As regards EU competition law, the Dutch authorities called for: updated guidance on the application of the antitrust rules in the digital economy; and more suitable EU merger notification criteria, for example based on the value of the transaction.

⁷⁶⁴ Interview notes, the Ministry of Economic Affairs and Climate Policy, 19 August 2020. The study team also interviewed ACM on 21 August 2020, but the focus of that interview was the authority’s 2019 market study into mobile app stores <https://www.acm.nl/sites/default/files/documents/2019-04/marktstudies-appstores.pdf> (see Section A4.5, Annex 4)

iii. Threshold for intervention – gatekeeper position

According to the ministry, it should be recognised that platforms that might have a gatekeeper position, and the drivers for their market power, can be very different from each other.

Therefore, in order to avoid over-regulation of some market participants, an approach based on case-by-case interventions is preferred over horizontal interventions, although this may become at the cost of slower enforcement and reduced legal certainty. To balance these two objectives, the extent to which specific measures are imposed on a case-by-case base would depend on the type of measure (see below).

Consequently, the intervention threshold should be based on the notion of a gatekeeper position, the criteria for which include⁷⁶⁵:

- considerable amount of market power in at least one core market (in an ecosystem);
- network effects, data collection leading to strong learning effects and feedback loops, and economies of scale and scope;
- the ability to use anticompetitive strategies such as leveraging or acquiring potential disruptor companies; and
- (potential for) ecosystem formation (increasing lock-in) and the ability to act as a private regulator.

Demand-side factors would also be relevant, including multi-homing (a mitigating factor) and consumer lock-in (an aggravating factor).

The focus should moreover be on market power across markets in an ecosystem, rather than in one particular market.

The non-paper co-signed with France did not rule out the use of some simple quantitative criteria (number of users, business contracts, market share or turnover), but stated that *“more qualitative criteria seem to be indispensable”*.

iv. Ex ante remedies

The suggested design of a two-step procedure for the designation of a firm as having a gatekeeper position and for the imposition of remedies would reflect the dual objective of the framework to address both dependency and contestability issues.

Step	Remedies	Burden of proof	Rational
1 Designation as having a gatekeeper role	Automatically triggers certain principle-based behavioural remedies that would apply to the entire ecosystem: <ul style="list-style-type: none"> • data portability for business users • fair contracts (no contract clauses that are not objectively justifiable) 	On the designated platform, of the objective justification/efficiency	These remedies would address the issue of dependence/asymmetric bargaining power. As platforms without a gatekeeper position would not, in principle, have an incentive to engage in such practices, swift intervention is preferred over a more detailed proportionality test.

⁷⁶⁵ Ibid.

- prohibition of distortionary self-preferencing
- prohibition of stop supplying existing access (interoperability, APIs, data access).

The enforcer would give guidance on the details.

2 After the designation, a second proportionality test

To decide whether it is necessary to impose more far-reaching remedies that may have a bigger impact on investment and innovation incentives:

- offering proactive choice options
- offering greater interoperability
- sharing of essential data on reasonable conditions.

On the enforcer, of the proportionality of the remedy

These remedies would address the issue of contestability (exclusive access by the gatekeeper platform to essential inputs).

The remedies would apply until the regulated gatekeeper platform submits information on its own initiative to the regulator showing that the remedies are unnecessary because the behaviour is net efficiency improving or no longer necessary in view of sufficient competition in the market. This is expected to incentivise the platforms to cooperate with the regulator.

v. Institutional set-up

According to the ministry, the new competence of this kind should be introduced at the EU level in light of the cross-border nature of the internet as a whole and of the services offered by gatekeeper platforms.

At the same time, setting up a new EU body or authority is not supported. Therefore, in practice, this would mean that the authority enforcing the rules is the European Commission.

The non-paper co-signed with France says that the *“European body entrusted with the enforcement of the new regulation should be fitted up with proper tools, such as broad investigation, audit and monitoring powers, including the ability to audit algorithms”*.

vi. Impact assessment at national level / effects on fairness choice and innovation if relevant

Not available.

vii. Relevance to EU platform regulation

The Dutch position supports and contributes to the development of an EU-level measure, so there is no conflict between the two.

c. UK

i.Context and problem definition

Context

The UK government announced⁷⁶⁶ in November 2020 that it will start implementing a new pro-competition approach to digital markets considering:

- the recommendations of the independent Digital Competition Expert Panel of March 2019⁷⁶⁷ (the Furman review), which the government accepted in the budget in March 2020 (para. 1.203)⁷⁶⁸;
- the recommendations of the July 2020 online platforms and digital advertising market study of the UK Competition and Markets Authority (CMA)⁷⁶⁹; and
- the advice to be delivered in December 2020 by the Digital Markets Taskforce (Taskforce), which is led by the CMA together with the Information Commissioner’s Office (ICO, the UK data protection authority) and communications regulator Ofcom.

Both the Furman review and the CMA market study suggested a new Digital Markets Unit (DMU) that could among other things impose measures where a company holds a strategic market status (SMS), which implies enduring market power over a strategic bottleneck market.

Although the “*new competition regime for tech giants*” announced by the government in November 2020 seems to focus on the CMA’s recommendations relating to online platforms that are funded by advertising, the Taskforce’s forthcoming advice is expected to be wider in scope.

The Taskforce stated⁷⁷⁰ in July 2020 that it will build on the CMA’s findings, considering how these may apply to other platform markets. It will focus on those markets where concerns have been most commonly raised in other reports or jurisdictions. “*These will include online marketplaces and app stores*”.

Table 43. UK government’s November 2020 response to specific recommendations of the CMA in relation to platforms funded by digital advertising

Recommendations	Government response
<p>Recommendation 1</p> <p>Establish an enforceable code of conduct to govern the behaviour of platforms funded by digital advertising that are designated as having SMS.</p> <p>The purpose of the code would be to meet three high-level objectives of fair trading, open choices, and trust and transparency.</p> <p>According to the CMA, Google and Facebook are highly likely to be designated as having SMS in online advertising markets.</p>	<p>Accepted</p> <p>The government recognises the need for urgent action and intends to legislate “<i>as soon as parliamentary time allows</i>”.</p> <p>The code of conduct should also address the recommendation of the Cairncross review into the sustainability of high-quality journalism⁷⁷¹ to introduce codes governing the relationships between online platforms and news publishers.</p> <p>The Digital Markets Taskforce⁷⁷², which the government set up in 2020 following the</p>

⁷⁷¹ <https://www.gov.uk/government/publications/the-cairncross-review-a-sustainable-future-for-journalism#:~:text=Dame%20Frances%20Cairncross%20was%20asked,of%20the%20UK%20news%20industry>

	Furman review, will provide advice on the design and implementation of the code.
<p>Recommendation 2</p> <p>Give the DMU the necessary powers to undertake SMS designation, introduce and maintain the code based on objectives set out in legislation, and produce detailed supporting guidance.</p>	<p>Accepted</p> <p>The DMU will be established in April 2021 within the CMA to introduce and enforce the code of conduct.</p> <p>The Taskforce will provide advice on the approach to designating SMS firms.</p> <p>The government will:</p> <ul style="list-style-type: none"> work with the Digital Regulation Cooperation Forum (DRCF)⁷⁷³ to ensure adequate coordination and cooperation with the CMA’s role in promoting competition, the Information Commissioner’s Office’s role in overseeing the data protection regime and Ofcom’s role in related markets consult on the form and function of the DMU in early 2021 legislate “as soon as parliamentary time allows”.
<p>Recommendation 3</p> <p>Give the DMU the necessary powers to enforce the principles of the code on a timely basis and amend its principles in line with evolving market conditions.</p> <p>This includes powers to suspend, block and reverse decisions of SMS firms, order conduct to achieve compliance with the code and financial penalties for non-compliance.</p>	<p>Accepted</p> <p>According to the government, an enforceable code would offer clarity and build trust in online advertising funded services, promote the overall health of the broader advertising sector ecosystem, deter anticompetitive practices, and ensure that consumers and businesses that rely on dominant platforms are fairly treated.</p>
<p>Recommendation 4</p>	<p>Not accepted yet</p>

⁷⁶⁷ J. Furman, D. Coyle, A. Fletcher, D. McAuley and Ph. Marsden, *Unlocking Digital Competition*, March 2019 <https://www.gov.uk/government/publications/unlocking-digital-competition-report-of-the-digital-competition-expert-panel>

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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/871799/Budget_2020_Web_Accessible_Complete.pdf

⁷⁶⁹ The CMA, *Online platforms and digital advertising*, 1 July 2020 <https://www.gov.uk/cma-cases/online-platforms-and-digital-advertising-market-study>

⁷⁷⁰ Digital Markets Taskforce, *Call for Information*, 1 July 2020 <https://www.gov.uk/cma-cases/digital-markets-taskforce#launch-of-call-for-information-and-stakeholder-engagement>

⁷⁷¹ <https://www.gov.uk/government/publications/the-cairncross-review-a-sustainable-future-for-journalism#:~:text=Dame%20Frances%20Cairncross%20was%20asked,of%20the%20UK%20news%20industry>

⁷⁷² <https://www.gov.uk/cma-cases/digital-markets-taskforce>

⁷⁷³ <https://www.gov.uk/government/publications/digital-regulation-cooperation-forum>

Give the DMU the necessary powers to introduce a range of pro-competitive interventions to tackle the sources of market power and promote competition.

They include mandating access to data, enforcing greater interoperability, changing choices and defaults for consumers and imposing separation remedies.

Although the government agrees in principle, more work is required to understand the likely benefits, risks and possible unintended consequences of the range of proposed pro-competitive interventions, which are complex and come with significant policy and implementation risks.

The government will continue to consider this, taking into account the advice of the Taskforce, the findings from the National Data Strategy consultation⁷⁷⁴, and views of stakeholders.

Problem definition

The Taskforce recognises the significant value that the services provided by digital platforms generate. This has been driven in part by the ability of these platforms to benefit from network effects and economies of scale and scope, and to use data to improve user services.

However, these features can also lead to the accumulation of market power.

The identified issues that may lead to a lack of competitive pressure listed include:

- concentration in a number of digital markets (e.g. search and social media);
- strong market power of individual companies, which can be entrenched (also through the acquisitions of potential disruptors);
- market tipping⁷⁷⁵ towards one or a small number of platforms, giving those companies considerable market power and influence over their users (both consumers and business users who may rely on the platform as a route to market, i.e. the gatekeeper role);
- diminishing incentives to innovate once there is a winner in the market;
- leveraging of market power from a core market into adjacent or other connected markets;
- other market features, including behavioural biases, barriers to switching and information asymmetries; and
- the comparatively lengthy process of pursuing traditional ex post competition law enforcement.

ii. Objective of regulatory intervention

To respond to these challenges, the Taskforce's advice to the government will focus⁷⁷⁶ on the following three areas:

The scope of any new approach to promote competition and innovation – specifically the test which might be used to identify firms with SMS and which online activities might be considered to be within the scope of a digital markets regime.

⁷⁷⁴ <https://www.gov.uk/government/consultations/uk-national-data-strategy-nds-consultation>

⁷⁷⁵ Interpreted as “the accumulation and entrenchment of market power, by one or a small number of players, who effectively ‘win’ the market, resulting in more limited competition and lesser incentives to innovate and invest in improving products and services”.

⁷⁷⁶ Digital Markets Taskforce Call for Information, p. 4

The range of potential types of remedies that should be available under a new approach – including in what circumstances and to what aim they are applied and whether only in relation to firms with SMS or more widely.

The options for designing procedure – how a new approach could be put into effect.

The Taskforce’s advice will be grounded in an understanding of the current and plausible future digital and technological landscape to ensure any new pro-competition approach stands the test of time.

iii. Threshold for intervention – strategic market status

The Furman review did not explicitly define SMS.

However, it did describe SMS as “a position of enduring market power over a strategic bottleneck or gateway market, where a firm controls others’ market access and where there are many dependent users on either side”.⁷⁷⁷

The Furman review indicated that the significant market power (SMP) test in telecoms regulation may be a good starting point for assessing this, and that aspects of market power such as economic dependence, relative market power and access to markets may be of particular relevance when defining SMS.⁷⁷⁸

The CMA’s market study built on the Furman review’s work and envisaged that the SMS designation criteria would include firms that have obtained gatekeeper positions and have enduring market power.⁷⁷⁹

It described the evidence it considered likely to be relevant to this assessment for platforms funded by digital advertising, and concluded that it is highly likely that both Google and Facebook would meet any criteria for SMS that are consistent with the Furman review’s explanation of the concept.

The Taskforce will build on the existing work of the Furman review and the market study to consider what specific criteria could apply to assess all types of digital platforms. It would also consider other research, reports and proposals, including the Digital Markets Act proposals put forward by the European Commission.⁷⁸⁰

The Taskforce will consider different approaches to defining the scope of the new pro-competition regime for digital markets, including the method suggested by the Furman review:

The regime would be given a broad underlying scope in primary legislation based on economic features. This would be along the lines of identifying digital markets where SMS may materialise due to characteristics including significant direct or indirect network effects, limited offsetting effects of multi-homing and differentiation, and significant sources of non-contestability.

Every three to five years the regime would conduct a statutory review of the identified markets.

iv. Ex ante remedies

The Taskforce will consider the types of remedies that would be available to ensure competitive markets and promote innovation.

⁷⁷⁷ Furman review, para. 2.10, 2.25–2.27 and 3.69.

⁷⁷⁸ Ibid. para. 2.117

⁷⁷⁹ The CMA online advertising market study, para. 7.57–7.59

⁷⁸⁰ “In particular the Taskforce will keep abreast of the proposals announced by the European Commission as part of the Digital Services Act for ex ante rules covering large online platforms acting as gatekeepers”.

Some remedies could be designed to apply only to firms with SMS to:

- manage its potential negative effects on platform users – remedies with this intention could include the code of conduct and merger rules; and
- address its sources to promote competition – possible types of remedies could include requiring an SMS platform to enable interoperability, or requiring it to provide access to data it holds, as well as structural interventions.

These would be the main focus of the Taskforce.

However, it will also seek to identify, “at a high level, the areas where remedies may need to be available to address competition problems which relate to platforms more widely, including those which may not have SMS. These could then be explored further in future work”.

Table 44. A summary of the Taskforce’s approach to remedies

Scope of intervention	Tool	Objective
Platforms with strategic market status	A mandatory code of conduct (suggested approach accepted by the government in November 2020)	Protect competition and consumers by ensuring that platforms with market power (i.e. SMS) do: <ul style="list-style-type: none"> • not exploit customers (fair trading objective) – requirement to trade on fair and reasonable terms when an SMS platform is an unavoidable trading partner as a result of a gateway position • not exclude competitors (open choice objective) – allow users to choose freely between elements of the SMS platform’s services and those offered by competitors • provide adequate information allowing market participants to make informed decisions (trust and transparency objective)
Same as above	Pro-competitive interventions (suggested approach not accepted yet, although the government agrees in principle)	Promote competition by overcoming barriers to entry and expansion. Remedies could include access to data, interoperability and structural remedies.
Potentially a broader range of market participants	Same as above (no government reaction yet)	Address wider competition problems such as behavioural biases, information asymmetries, barriers to switching or coordination failures. Address market tipping.

Remedies to address effects of SMS – the code of conduct

In relation to the implementation of the new framework, the Taskforce will take as a starting point the approach proposed by the CMA's market study for Google and Facebook, and consider how such a code could be implemented in other digital markets.

The SMS regulation would be based on a code of conduct, which would take the form of high-level principles rather than detailed and prescriptive rules, comprising:

- a statement of scope, setting out the core markets within which the platform is found to have SMS and the key relationships covered by the code;
- three high-level objectives (fair trading, open choices, trust and transparency); and
- principles within each objective, providing greater specificity as to the behaviour allowed or prevented by the code – some of these may differ between SMS platforms;

The code would be accompanied with guidance on practical application of the code principles to the markets in which the SMS platform operates. The guidance would be updated by the DMU as the market evolves.

The CMA's market study proposed a bespoke code for each firm in relation to the core market in which they are designated as having SMS. The Taskforce will consider this proposal further for firms in other markets, for example online marketplaces and app stores.

The Taskforce notes that, in the UK, a number of other policy challenges associated with digital platforms have had codes of conduct proposed as solutions, include the codes proposed in the Cairncross Review into the sustainability of high-quality journalism and the Online Harms White Paper⁷⁸¹.

Solving these policy challenges is outside the scope of the Taskforce, but it would *“have due regard to how any of its considerations or proposals relate to those policy challenges, and will include within its advice any evidence or considerations relevant to the government's work on wider policy challenges”*.

Similar to Australia (see Section 1.7 below), the government announced in November 2020 that the code will also support the sustainability of the news publishing industry, helping to rebalance the relationship between publishers and online platforms.

As regards merger control, the Taskforce considers whether SMS firms could be required to notify all transactions to the CMA, subject to certain limited exemptions. (In the UK, merger notifications are voluntary, but the NCA can open an investigation on its own initiative if there is a transaction that meets its jurisdictional thresholds).⁷⁸²

Remedies to address the sources of SMS

Although the Taskforce says that it does not expect to develop detailed proposals because of time constraints, it will consider whether there should be additional powers, alongside the code of conduct, to address the sources of market power of firms with SMS.

The objective would be to help entrants seeking to develop new and innovative businesses to either compete with or complement the services provided by these firms.

This could include requirements on larger firms to provide access to data or to interoperate with new entrants or firms seeking to develop new services in adjacent markets, where there are demonstrable benefits for consumers.

The Taskforce will also consider whether and under what circumstances structural remedies should be available, as suggested by the CMA's market study.

Remedies potentially applying to platforms without SMS

⁷⁸¹ <https://www.gov.uk/government/consultations/online-harms-white-paper>

⁷⁸² <https://www.gov.uk/guidance/mergers-how-to-notify-the-cma-of-a-merger>

The Taskforce is also considering whether remedies may be required to deal with wider competition problems in digital markets.

Examples of such problems could include behavioural biases, information asymmetries, barriers to switching or coordination failures.

The remedies could be applied to individual firms and/or be industry-wide *“to ensure that market outcomes are aligned with the interests of consumers and foster long-term competition and innovation”*.

In this context, the Taskforce will consider:

- whether pre-emptive action should be possible, for example where there is a risk of the market tipping;
- what measures, if any, are needed to address information asymmetries and imbalances of power between platforms and their business customers, such as third-party sellers on marketplaces and providers of apps;
- what measures, if any, are needed to enable consumers to exert more control over the use of their data; and
- what role, if any, is there for open or common standards or interoperability to promote competition and innovation across digital markets.

v. Institutional set-up

In November 2020, the government announced that the DMU will be established within the CMA to introduce and enforce the code of conduct. It will also be entrusted to designate platforms as having SMS.

The CMA's market study proposed that the DMU would need appropriate powers, including the ability to:

- compel information from SMS firms and other market participants;
- carry out own-initiative investigations and investigations stemming from complaints;
- put in place rapid interim measures pending the outcome of an investigation, for example to suspend or reverse the implementation of a potentially harmful decision by an SMS firm, backed up by financial penalties for non-compliance;
- publish reports on its work and the industry more generally, balancing the need for transparency against industry players' interests in protecting their confidential information;
- appoint a monitoring trustee to monitor and oversee compliance by an SMS firm; and
- co-ordinate and share information with UK regulators such as the CMA, ICO and Ofcom, and with overseas authorities with similar objectives
- provided the DMU is satisfied that confidential information will be treated appropriately.

The market study also proposed that:

- there would be a right of appeal on judicial review grounds by the SMS firm or other materially affected person against decisions of the DMU; and
- the DMU would need express jurisdiction to investigate the supply of services to UK consumers, and to investigate those who supply them – including the power to require the production of information from, and to impose orders on, firms not physically present in the jurisdiction.

vi. Impact assessment at national level / effects on fairness choice and innovation if relevant

There is no detailed impact assessment yet, although ensuring *“competition, innovation and coherence”* is the objective of the Taskforce's exercise.

Fair trading (no exploitation) would be one of the three overarching principles that form the basis of the code of conduct applying to SMS firms.

vii. Relevance to EU platform regulation

In developing its advice, the Taskforce will draw on the experience of existing regulatory regimes, and proposals for ex ante pro-competitive interventions in digital markets being considered in other jurisdictions, including the Digital Markets Act proposals put forward by the European Commission.

The Taskforce will also consider the international context of any new approach introduced in the UK, recognising that the largest digital platforms serving UK consumers are multinational companies, operating across multiple jurisdictions and headquartered overseas.

In assessing the full range of functions and tools that would be required under a new approach, the Taskforce will therefore also consider where international cooperation will be most important.

d. Japan - Act on Improving Transparency and Fairness of Specified Digital Platforms

i. Context and problem definition

In June 2018 the Japanese government (the Cabinet) delivered a decision asking relevant ministries and agencies to look into the social responsibility of digital platforms and how to ensure fairness for their users. The Cabinet asked them to establish basic principles and take concrete measures as soon as possible.⁷⁸³

In its decision, the government noted that, due to factors such as network effects and economies of scale-, monopolies and oligopolies tend to occur in the platform economy, as well as lock-in effects. It was also pointed out that in some platform markets the transparency of transactions is low (e.g. platforms deny a transaction with a user or amend their terms and conditions without providing an explanation).

In response, the Ministry of Economy, Trade and Industry (METI), the Japan Fair Trade Commission (JFTC), and the Ministry of Internal Affairs and Communications (MIC) jointly set up a group of experts to review the development of the trading environment in digital platform markets, and conducted research and surveys on the above issues.

In December 2018, based on the results of the review, the group put forward some basic principles to be followed as a course of action for bringing transparency and fairness with regard to digital platforms:

- gaining an understanding of the actual workings of transactions through large-scale investigations;
- considering the creation of specialised organisations with diverse and advanced knowledge of digital technologies/businesses to support government policy making; and
- considering the introduction of rules to ensure transparency and fairness, such as an obligation to disclose terms and conditions by digital platforms.

⁷⁸³ Future Investment Strategy 2018, http://www.kantei.go.jp.cache.yimg.jp/jp/singi/keizaisaisei/pdf/miraitousi2018_zentai.pdf
<https://www.jftc.go.jp/soshiki/kyotsukoukai/kenkyukai/platform/index.html>
<https://www.jftc.go.jp/houdou/pressrelease/h30/dec/kyokusou/181218betten1.pdf>

Based on the basic principles, the JFTC conducted a survey on transactions in online malls (i.e. online marketplaces) and app stores to identify trade practices that may pose concerns from a competition perspective. A final report was released in October 2019.

The JFTC raised concerns regarding some practices applied by these platforms in relation to their business users:

- unilateral changes of terms and conditions;
- imposition of unfair terms on business users (e.g. obligation on business users to waive shipping fees for purchases above a certain amount);
- refusing access to the platform for app developers competing with the platform (in the case of app stores);
- using business users' data for the own sake of the platform;
- requiring business users to use certain services (e.g. payment) provided by the platform; and
- most favoured nation (MFN) clauses obliging business users not to use other platforms or not to offer their goods and services at better conditions through other platforms.

In September 2019, the Cabinet set up the Headquarters for Digital Market Competition (to assess digital markets and propose competition policies) and the Digital Market Competition Council (to conduct surveys and deliberations).⁷⁸⁴

Following the work carried out by the Headquarters for Digital Market Competition, the Cabinet approved in February 2020 the Bill on Improving Transparency and Fairness of Specified Digital Platforms. The Act (referred to as the Transparency and Fairness Act or TFA) was passed by Parliament on 27 May 2020 and was promulgated on 3 June 2020.⁷⁸⁵ The Act will enter into application on the date specified by a Cabinet order. That date must not exceed one year from the date of its promulgation.⁷⁸⁶

ii. Objective of regulatory intervention

The purpose of the TFA is to improve transparency and fairness of digital platforms in relation to the users that offer goods and services through them.⁷⁸⁷ Rather than applying horizontally to all digital platforms, the TFA will only apply to certain platforms that will be designated by the METI according to the criteria and thresholds established by a Cabinet order.

The TFA aims at protecting the interests of the business users and consumers of digital platforms. At the same time, the TFA aims to preserve the independence and autonomy of the platforms that will be subject to the law.⁷⁸⁸ In this regard, the law aims to promote voluntary initiatives by the concerned platforms, rather than establishing overly prescriptive rules.⁷⁸⁹

⁷⁸⁴ https://www.meti.go.jp/english/press/2020/0218_002.html

<https://www.sangiin.go.jp/japanese/joho1/kousei/gian/201/meisai/m201080201023.htm>

⁷⁸⁵ <https://www.sangiin.go.jp/japanese/joho1/kousei/gian/201/pdf/s0802010232010.pdf>

⁷⁸⁶ Supplementary provision 1 TFA

⁷⁸⁷ Article 1 TFA

⁷⁸⁸ Article 1 TFA

⁷⁸⁹ Interview notes, Ministry of Economy, Trade and Industry (METI), 18 August 2020.

iii. Threshold for intervention

The TFA contains a broad definition of digital platforms. The definition can potentially encompass a wide range of platforms. According to the law, digital platforms are essentially those that:

- provide their services online;
- operate in multi-sided markets, as they connect users from both sides of the platform (e.g. business users and consumers) through digital technology; and
- benefit from indirect network effects (i.e. the more users the platform has on one side, the more benefits for users on the other side of the platform).⁷⁹⁰

However, the METI will designate the concrete (specified) platforms that will be subject to the law, in accordance with the criteria and thresholds to be established by the Cabinet. As a first step, the Cabinet plans that the TFA will apply to certain large online marketplaces and app stores.⁷⁹¹ The broad definition of digital platforms in the TFA gives the Cabinet flexibility to make additional types of platforms subject to the TFA in the future.

iv. Remedies

Specified digital platforms will basically have to follow three types of provisions under the TFA:

- transparency or disclosure obligations regarding the transaction conditions of their services;
- developing measures, procedures and systems, for example to handle complaints; and
- annual reporting obligations on aspects such as the handling of complaints.
- Disclosure of information on transaction conditions⁷⁹²

Specified digital platforms will be required to disclose the following information (e.g. through their terms and conditions) to the users (i.e. both business users and consumers)⁷⁹³ that offer goods and services through them:

- the criteria for rejecting transactions;
- if the user is required to purchase certain goods, services or rights in order to use the platform, the details and reasons for such a requirement;
- the main parameters determining the ranking of products and services (and if ranking can be influenced by payment, e.g. by paying for advertising);
 - the conditions under which the platform obtains or uses data relating to the sales of products and services offered through the platform;
 - whether or not business users obtain or use data held by or generated through the platform and, if so, the conditions under which they can obtain and use the data;
 - the system to consult or file complaints to the platform.

⁷⁹⁰ Article 2 TFA

⁷⁹¹ Interview notes, Ministry of Economy, Trade and Industry (METI), 18 August 2020.

⁷⁹² Article 5 and 6 TFA

⁷⁹³ The TFA is broader in scope than the EU Platform-to-business Regulation in the sense that its requirements are not only relevant to business users, but also to consumers offering goods and service through the platform.

The METI can establish, through an order, additional aspects to be disclosed.

Specified platforms should also disclose certain information to their consumers, including:

- the main parameters determining the ranking of products and services (and if ranking can be influenced by payment); and
- if they obtain or use data relating to the searches of products and services, or to the purchases of products and services through them, the conditions under which the platform obtains and uses the data.

Specified digital platforms will also have to state the reasons behind certain types of conduct such as a refusal to provide its services to a business user, or changes in terms and conditions.

b) Development of measures, procedures and systems⁷⁹⁴

The TFA generally obliges specified digital platforms to take measures to promote the mutual understanding between the platform and users selling goods and services through them.

The METI will issue non-binding guidelines with principles to help platforms in the implementation of such measures. The principles will revolve around aspects such as the following:

- measures necessary to promote mutual understanding in platform-to-users relationships;
- systems and procedures to ensure the fairness of platform-to-users transactions; and
- systems and procedures to handle complaints and settle disputes.

Such guidelines have not been issued yet.

c) Operational status reports and monitoring reviews⁷⁹⁵

The TFA also contains reporting obligations for specified platforms. Every fiscal year, specified digital platforms should submit to the METI a report regarding aspects such as:

- business overview;
- the processing of complaints and dispute resolution;
- transparency requirements regarding the disclosure of transaction conditions described above under heading a).

Through the report, specified digital platforms should also conduct a self-assessment of certain matters such as the handling of complaints.

v. Institutional set-up

The TFA will be enforced by the METI. The TFA is principle-based and leaves to the METI or the Cabinet to further develop key provisions. These include the criteria and thresholds to designate the digital platforms subject to the TFA, or the non-binding guidelines to help specified platforms take measures necessary to promote mutual understanding in platform-to-business relationships.

If the METI finds that a specified platform does not comply with its obligations such as the transparency obligations, it may deliver a recommendation for the platform to promptly

⁷⁹⁴ Articles 7 and 8 TFA

⁷⁹⁵ Article 9 TFA

comply with its obligations. The recommendation will be accompanied by a public notice, with the reputational risk that this entails for the platform.⁷⁹⁶

The METI should evaluate the annual reports by specified digital platforms and make the evaluation results publicly available. Specified digital platform providers are required to make efforts to voluntarily improve transparency and fairness based on the evaluation results. Failure to submit a report, failure to include a required statement, or false reporting is subject to fines.

Further, if the METI finds that a conduct by a designated digital platforms could violate competition law, it may request the JFTC to take appropriate measures.⁷⁹⁷

vi. Impact assessment at national level / effects on fairness, choice and innovation if relevant

The TFA has not yet entered into application so it is premature to evaluate its effectiveness. The TFA has been conceived as an instrument to promote fair and free competition.

The Japanese legislator refrained from establishing overly prescriptive rules, as those could have hampered innovation. It does not blacklist certain practices, nor prohibit any types of conduct. It rather establishes transparency requirements, which will allow the Cabinet to review the conduct of online platforms based on the information they have disclosed.⁷⁹⁸

vii. Relevance to EU platform regulation

The TFA is quite aligned with the EU Platform-to-business (P2B) Regulation as it contains transparency measures, complaint-handling systems and reporting obligations. However, unlike the P2B Regulation, which applies horizontally to online intermediation services and search engines, the TFA will target certain categories of digital platforms.

As a first step, the TFA is expected to apply to certain large online marketplaces and app stores. This is because these platforms have attracted most of the complaints from business users. These are platforms with a huge countervailing bargaining power and on which business users are heavily dependent due to their indirect network effects.⁷⁹⁹

The TFA aims to address some of the concerns that the planned EU ex ante tool is expected to tackle. These include large-scale unfair trading practices by certain online platforms, dependency by business users on a few platforms and imbalanced bargaining power.

However, as a first step, the Japanese legislator opted for soft measures to incentivise that specified digital platforms become more transparent and fair, rather than blacklisting specific practices or imposing more stringent obligations (e.g. on access to data).⁸⁰⁰

e. United States

i. Context and problem definition

In the United States, the debate on the regulation of “Big Tech” focuses on three kinds of problems:

- anti-competitive conduct by large tech platforms, including predatory acquisitions, bundling, discrimination, preventing multi-homing;

⁷⁹⁶ Interview notes, Ministry of Economy, Trade and Industry (METI), 18 August 2020.

⁷⁹⁷ Article 13 TFA

⁷⁹⁸ Interview notes, Ministry of Economy, Trade and Industry (METI), 18 August 2020.

⁷⁹⁹ Interview notes, Ministry of Economy, Trade and Industry (METI), 18 August 2020.

⁸⁰⁰ Interview notes, Ministry of Economy, Trade and Industry (METI), 18 August 2020.

- privacy and consumer protection harms, including improper use of personal data and manipulation of consumers through addictive “dark patterns” techniques;
- harms to healthy public discourse and democracy, through fake news, hate speech, and the demise of trusted journalism.

The three problems will require separate legislative responses, but the responses should be coordinated because the problems (and remedies) will affect each other.

Currently, the problem of anticompetitive conduct, including exclusionary tactics, is addressed through Sections 1 and 2 of the Sherman Act, which prohibit unreasonable restraints of trade (Section 1) and make it unlawful for any person to “monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations” (Section 2). Section 2 of the Sherman Act is complemented by Section 5 of the FTC Act which prohibits unfair methods of competition. Killer acquisitions are prohibited under the Clayton Act of 1914.

The [complaint](#) filed by the FTC against the e-prescription platform Surescripts illustrates how Section 2 of the Sherman Act and Section 5 of the FTC Act can be used to address anti-competitive behavior by gatekeeper platforms. Surescripts is accused, among other things, of applying pricing policies that punish users who use competitive platforms. The U.S. Supreme Court’s decision in [American Express](#) imposed limits on how Section 1 of the Sherman Act can be used against platforms that discourage users from using competing platforms, by imposing a very high burden of proof on the part of the government to show anticompetitive effects. The *American Express* case involved a transaction platform, leading some to believe that Section 1 of the Sherman Act would be difficult to apply to other large tech platforms. However [Professor Tim Wu has argued](#) that the scope of the *American Express* case is limited to platforms that allow for simultaneous transactions between buyers and sellers on the two sides of the platform. According to Wu, the case might apply to a platform like Uber, but not to a platform like Google or Facebook, for which a traditional rule of reason approach would apply.

The problem of privacy and consumer harm is addressed through Section 5 of the FTC Act which prohibits unfair and deceptive practices in commerce. The FTC has successfully used this provision to enforce privacy obligations, including a [\\$5 billion settlement](#) with Facebook imposing on Facebook extensive behavioral remedies over a 20 year period. Section 5 of the FTC Act has also been used by the FTC to sanction deceptive practices on platforms, such as the use of [fake reviews, fake followers or deceptive ranking practices](#). Consumer protection and privacy is also regulated through state legislation, including California’s recent privacy act, the CCPA.

The problem of hate speech, fake news and the like is linked to the liability safe harbor under Section 230 of the Communications Decency Act, which states that online platforms shall not be considered publishers of content posted by users, and giving platforms free reign to adopt their own content moderation policies designed to eliminate objectionable content. There exist a number of proposals, including from the White House, to modify Section 230.

ii. Objective of regulatory intervention

As illustrated by the [September 2019 report of the Stigler Center](#) the objectives of regulatory intervention revolve around the three groups of problems mentioned above: anticompetitive behavior (including killer acquisitions), privacy and consumer protection, and harm to democracy and public discourse. The linkage between the subjects was evident in the recent [hearings before the house antitrust subcommittee](#), which were supposed to focus on antitrust problems but often digressed into problems related to content moderation and use of customer data. The linkage between the three sets of problems is unavoidable. For example,

one of the key objectives of antitrust law is to ensure that there are multiple actors in the market, which in turn helps promote media plurality and healthy public discourse. The use of personal data (problem two) raises privacy issues but also creates market power thereby influencing problem one. A recent [essay by Professor Jack Balkin](#) explores this interdependency. The June 2019 comments made by [43 state attorney generals](#) provide a list of the biggest concerns from an antitrust angle, including collection of user data as a large barrier to entry, killer acquisitions, and inadequate focus by antitrust authorities on non-price harms to consumers.

iii. Threshold for intervention

Section 2 of the Sherman Act requires a showing of a “monopoly” in the relevant market, as the FTC has attempted to show in its [complaint](#) against Surescripts. For other provisions, including Section 5 of the FTC Act prohibiting unfair and deceptive practices, there is no threshold.

However, the current debate in the U.S. on the regulation of “big tech” platforms is focused on very large platforms. No consensus has emerged yet on what this means. The [Stigler Report](#) proposes heightened regulatory obligations on platforms with “bottleneck power”:

“‘Bottleneck power’ describes a situation where consumers primarily single-home and rely upon a single service provider (a “bottleneck”), which makes obtaining access to those consumers for the relevant activity by other service providers prohibitively costly.” (Stigler Report, p. 105)

The proposed [Algorithmic Accountability Act of 2019](#) - which addresses harms associated with automatic decision-making and use of personal data - proposes a more concrete threshold, covering entities that:

(A) had greater than \$50,000,000 in average annual gross receipts for the 3-taxable-year period preceding the most recent fiscal year, as determined in accordance with paragraphs (2) and (3) of section 448(c) of the Internal Revenue Code of 1986;

(B) possesses or controls personal information on more than—

(i) 1,000,000 consumers; or

(ii) 1,000,000 consumer devices;

(C) is substantially owned, operated, or controlled by a person, partnership, or corporation that meets the requirements under subparagraph (A) or (B); or

(D) is a data broker or other commercial entity that, as a substantial part of its business, collects, assembles, or maintains personal information concerning an individual who is not a customer or an employee of that entity in order to sell or trade the information or provide third-party access to the information.

iv. Ex ante remedies

Currently the FTC uses negotiated settlements to impose ex ante remedies on companies under Section 5 of the FTC Act. Once the FTC enters into a court-approved settlement with a company, the settlement becomes a binding regulation, typically with a broad range of custom-made behavioral remedies and audit provisions. The obligations last 20 years. A violation of a settlement permits the FTC to levy heavy sanctions, as it did in the 2019 case against Facebook. If a company does not agree to a settlement, the FTC must sue the company in federal court, as the FTC is currently doing in the Surescripts case.

In the current debates on the regulation of Big Tech, [Senator Elizabeth Warren](#) and [Lina Khan](#) have argued for structural separation, similar to the break-up of the Bell System. They argue that economic incentives for reprehensible conduct by large platforms are so strong that only structural separation can work. Critics of structural separation point to the huge costs and complexity of break-ups and to the fact that customers would lose the convenience of seamless services. While not going so far as structural separation, [Jack Balkin proposes](#) functional separation to ensure that a large tech platform treats its downstream or “edge” businesses in the same way as third party businesses.

The [Stigler Report](#) proposes changes to antitrust law to ensure that platforms with bottleneck power systematically notify mergers, and a reform that would require antitrust authorities to focus on “citizen welfare” as opposed to only “consumer welfare”. In addition, the report proposes that a dedicated digital regulator have the power to conduct investigations and collect data from digital platforms, and impose a specific menu of remedies. The menu of available remedies would be different for ordinary digital platforms and for platforms with bottleneck power. The baseline toolbox of remedies for all platforms would include:

- investigatory powers including the collection of data by the regulator;
- rules that prohibit certain practices that harm consumer choice such as automatic renewals;
- imposing standards for data portability in justified cases;
- imposing open standards for digital identity services;
- a role in merger review;
- imposing standards for interoperability of consumer devices with different platforms.
- For platforms with bottleneck power, the menu of remedies may also include:
 - specific remedies to address discrimination and foreclosure, including imposition of rules to remove barriers to multi-homing;
 - imposing unbundling of services;
 - in case of an antitrust violation, imposing data sharing and full protocol interoperability.

Other [proposals](#) for remedies include a [tax on digital advertising](#) that would apply to large platforms; a regulator (which might be the FTC) with power to adjudicate on an expedited basis claims of discrimination; and an [obligation to quickly delete data](#), which according to the authors would not only enhance privacy protection, but would help competition.

Another proposal -- more focused on problems relating to public discourse -- would link the liability safe harbor under Section 230 of the Communications Decency Act to a platform’s adoption of virtuous practices.

v. Institutional set-up

The FTC and state attorneys general are currently in charge of applying most regulations that affect digital platforms. Future proposals on digital regulation would likely expand the FTC’s powers, as opposed to creating a separate digital authority.

vi. Relevance to EU platform regulation

Several aspects of the US approach are noteworthy in the context of the European debate:

- The FTC has been able to apply the general wording of Section 5 of the FTC Act to a wide range of reprehensible practices by platforms. The advantage of relying on general statutory wording is that the legal norm can evolve with technology and markets; it never becomes obsolete. The disadvantage of general wording is that it creates legal uncertainty and will require a number of years and court battles for regulators to transform the general principle into specific remedies.
- The FTC's practice of negotiating 20-year settlement agreements has proven to be an extremely effective way of imposing custom-made behavioral remedies on companies.

The current US debate illustrates how intertwined the problems associated with big tech are. While the problems need to be addressed via separate policy instruments, the approaches need to be coordinated because each kind of problem and each kind of solution can affect the others. This is why the Stigler Report recommends a single digital regulatory authority with powers that extend across various fields.

f. France

i. Context and problem definition

Since [2014](#), France has been leading the effort to regulate platforms, championing the idea of imposing an enhanced duty of fairness or “loyalty” on large platforms, a duty that extends to users on both sides of the platform.

In 2016, the so-called [Loi Lemaire](#) introduced for the first time a legal definition of platforms:

“I. An online platform operator is defined as any physical or moral person offering, in a professional capacity, a paid or unpaid online communication service to the general public, comprising:

1° The classification or referencing, by means of computer algorithms, of content, goods or services offered or advertised online by third parties;

2° The facilitation of networking among various parties in view of the sale of a good, the provision of a service or the exchange or sharing of a content, good or service.

All platforms satisfying this definition have an obligation to provide fair, clear and transparent information to consumers, including information on any remuneration that the platform operator may receive from advertisers or merchants ranked on the platform, as well as the existence of any other capitalistic links with advertisers and merchants. The details of these information requirements are defined by a [decree](#), which according to a recent [parliamentary report](#), has given rise to considerable confusion among platform operators. The Loi Lemaire imposes additional obligations on major platforms, including the obligation to develop codes of conduct on consumer transparency, and an obligation to communicate information to administrative authorities on request. Major platforms are defined by [decree](#) as platforms having more than 5 million unique visitors a month.

The Loi Lemaire also has provisions intended to make consumer comments and rankings more reliable, and less subject to manipulation. [These provisions](#) protect consumers against misleading information, but also protect merchants, who can complain about fake consumer comments.

A [proposed law](#) to enhance consumer choice online is currently being debated in French parliament. The proposed law would:

- Impose net neutrality obligations on terminal operating systems;

- Permit the French telecommunications regulatory authority ARCEP to impose interoperability remedies on major platforms;
- Permit French competition authorities to prevent predatory acquisitions;
- Prohibit platform operators from using deceptive consumer interfaces.

The proposed law would use the same definition of platform as the “Loi Lemaire”. The definition of major platform would be set by a decree. The proposed law defines interoperability as:

- “the ability of a product or system, whose interfaces are fully known, to work alongside other existing or future products or systems, without any restriction of access or implementation.”

The proposed law was adopted in first reading by the French Senate and has now been transmitted to the National Assembly, and is being examined by the Economic Affairs Commission. The Economic Affairs Commission issued a [report](#) on June 24, 2020 recommending that the law:

- Include a methodology for defining “structuring platforms”;
- Modify competition law criteria to include consideration of non-price effects on consumers, and permit faster behavioral remedies to be imposed;
- Provide a regulatory tool box of remedies that can be imposed on structuring platforms, including remedies relating to transparency; the development of standards and interfaces to facilitate portability and interoperability; the ability to order data sharing for certain “essential” data; impose net neutrality obligations on terminals; and impose non-discrimination remedies.
- Create a new antitrust violation called “abuse of monopolisation by structuring digital platforms”;
- Make merger control notifications obligatory for structuring platforms;
- Give powers to a single regulatory authority in France to supervise platform regulation.
- The report also recommends that France fully support the European Commission’s efforts to create ex ante regulation of large digital platforms via the Digital Services Act.

In addition to the Loi Lemaire and the proposed new law, France has a number of sector specific laws regulating platforms, including laws:

- imposing transparency and reducing platform power in advertising services (the so-called [Loi Sapin](#));
- on [transport and delivery platforms](#) such as Uber, designed to protect drivers;
- on [hotel and travel platforms](#) designed to ensure that they comply with rules applicable to travel agents;
- on [news aggregation platforms](#), designed to ensure neutrality and plurality of new distribution;
- imposing obligations on platforms in connection with [hate speech](#) and [disinformation](#);
- requiring platforms to [report transactions to tax authorities](#), to avoid tax evasion by users of the platform;

- on [insurance](#) and financial services platforms.

On interoperability, France has one law of particular interest:

The [DADVSI law](#), which imposes interoperability obligations on digital rights management (DRM) software publishers. The DADVSI law resulted in the creation of a special regulatory authority on interoperability with specific powers to order the communication of information necessary for interoperability. But the law has practically never been applied. It is an example of a costly and complex regulatory regime for interoperability being created for a problem that ended up disappearing by the time the regime was in place.

Finally, general provisions of French law have been successfully used against platforms:

- provisions of the Commercial Code prohibiting anticompetitive agreements or abuse of dominance;
- provisions of the Commercial Code that prohibit unfair practices such as the imposition of terms that create an economic imbalance, the sudden interruption of business relations, or the imposition of MFN clauses;
- provisions of the Civil Code on unfair competition.

ii. Objective of regulatory intervention

The examples above show that French lawmakers have focused on both economic and non-economic harms associated with platforms. Most of the effort to date of specific platform regulation, particularly the Loi Lemaire, has been on transparency in an effort to root out unfair rankings. The other specific platform laws (on transport and hotel reservations, for example) are designed to create a level playing field between operators of online platforms and other traditional intermediaries. Though adopted before online platforms existed, the [1993 Loi Sapin](#) on advertising intermediaries is the most aggressive economically, because it prohibits an advertising intermediary from receiving remuneration from both sides of the transaction. The intermediary must choose which side to represent, and be remunerated only by that side of the platform.

iii. Threshold for intervention

The [2017 decree](#) implementing the Loi Lemaire sets a threshold of 5 million unique visitors per month. However, there exist today proposals to create a more refined methodology for defining major platforms. The approaches currently proposed by French institutional players are summarized by the June 24, 2020 parliamentary report:

The French competition authority proposes the following criteria:

«access to all data necessary for entering and/ or expanding in the market; the existence of a dominant position within one or multiple neighbouring markets; vertical integration within neighbouring markets; financial capacity; access to financial resources; the existence of significant network effects; the existence of multi-sided markets; the degree of data portability and interoperability; the ability of the operator to define, by himself, the rules of the market or his ability, as part of their dealings with the regulator, to maintain strong informational asymmetries ([42]).»

The French Ministry of the Economy proposes the following criteria:

*« – **A dominant and sustainable position in the European market.** To this end, the Treasury suggests analysing several quantitative and qualitative criteria, such as the existence of substantial network effects, the importance of economies of scale, the number of platforms used by customers and possibilities of differentiation among actors. The Treasury further remarks that other key criteria, in the form of thresholds or target audiences, could also be used;*

– **Significant market power over dependent users.** Several indicators, pertaining to the professional user and the consumer, could be considered. These could include an analysis of the costs associated with migration for users, notably those relating to a platform's locking capabilities; the existence of possibilities of substitution or for bypassing the platform; and the degree of user vulnerability to the operation and algorithms of the platform.

– **Expansion strategies that go beyond the market served by the platform, potentially constituting a threat to innovation.** Parameters, such as the (almost) exclusive access to strategic data in the context of competition or innovation; the potential for conglomerate expansion; the proposition of services, driven by the popularity/ strength of the platform; or the provision of services within a wider ecosystem, could be considered.

The French regulator of electronic communications, ARCEP, proposes the following criteria:

« – **the platform is essential:** it can act as a “bottleneck,” triggering economic dependence.

– **the platform brings together a substantial number of users;**

– **the platform is embedded within a wider ecosystem, which allows for greater leverage.**

Secondary indicators proposed by ARCEP are as follows:

– **the platform serves as an essential avenue for accessing wider digital content,** notably via the implementation of one or more algorithms that would help with the classification or referencing of information that is available among large amounts of digital content to the user;

– **the platform offers access to data in reasonable quantity and quality.** This includes data transmitted by the user as well as usage data that is generated by the platform itself.

– **in the event where an advertising network is associated with the platform,** its share of the advertising market will be significant.

– **the financial valuation of the company that owns the platform reaches a significant level.**

The parliamentary report points out that these criteria often overlap, and that French lawmakers include a consolidated version of these criteria in any future law, and leave it to the dedicated regulatory authority to apply the criteria in a flexible manner.

iv. Ex ante remedies

The Loi Lemaire's only ex ante remedy is the obligation for major platforms (>5 million monthly unique visitors) to create codes of conduct on transparency. According to the June 24, 2020 [parliamentary report](#), this obligation has not been successful. The [proposed law](#) on platforms currently being debated in parliament would give power to a regulatory authority, ARCEP in the current draft, to impose specific *ex ante* remedies to ensure interoperability. The remedy would be tailored to the specific situation. The parliamentary report proposes a much broader set of *ex ante* regulatory tools, including remedies relating to transparency; the development of standards and interfaces to facilitate portability and interoperability; the ability to order data sharing for certain “essential” data; impose net neutrality obligations on terminals; and impose non-discrimination remedies.

v. Institutional set-up

Currently the French consumer protection agency, the DGCCRF, is in charge of enforcing the Loi Lemaire. Sector-specific platform rules are enforced by sector regulators (audiovisual regulator, financial services regulator, etc.).

The proposals before French parliament would assign to a specific regulator, most likely ARCEP, responsibility for imposing new ex ante remedies on major platforms.

vi. Relevance to EU platform regulation

France has adopted a patchwork of platform regulations which illustrate the difficulty of combining horizontal regulations (such as the Loi Lemaire) with sector-specific platform rules such as the Loi Sapin on advertising platforms, or the rules on transport and delivery platforms. The Loi Lemaire has resulted a low level of compliance and market impact, due to weak enforcement and confusion on how it should be applied.

France so far has placed greatest emphasis on transparency measures to force platforms to reveal conflicts of interest that may affect recommendations or rankings. The 1993 Loi Sapin goes further, by prohibiting remuneration from both sides of the platform.

g. Australia – Digital Platforms Inquiry

i. Context and problem definition

Based on the Competition and Consumer Act 2010 (Competition and Consumer Act),⁸⁰¹ in December 2017 the Australian government asked the Australian Competition and Consumer Commission (ACCC) to conduct an inquiry into digital platforms, namely search engines, social media and content aggregation platforms.⁸⁰²

The government asked the ACCC to focus the inquiry on the impact of these platforms on competition in the media and advertising markets, as well as on the implications for media content creators, advertisers and consumers.

The ACCC assessed a wide range of interrelated issues, although putting the focus very much on different services provided by two specific platforms: Facebook and Google. The table below summarises some of the issues identified and of the recommendations made by the ACCC in its final report of June 2019.⁸⁰³

Table 45. Issues and recommendations in ACCC Digital Platforms Inquiry

Aspect	Issues	Recommendations
Market power of Facebook and Google	High barriers to entry and expansion in the general search and search advertising markets, where Google has substantial market power Google's position in the mobile operating system (Android) and	Review the Australian merger framework Google should provide users of Android devices with the ability to choose the default search engine and default internet browser (if this is not

⁸⁰¹ Article 95H(a) Competition and Consumer Act 2010
<https://www.legislation.gov.au/Details/C2018C00437>

⁸⁰² Terms of reference, 4 December 2017 <https://www.accc.gov.au/focus-areas/inquiries-ongoing/digital-platforms-inquiry/terms-of-reference>

⁸⁰³ Digital Platforms Inquiry, Final Report, June 2019
<https://www.accc.gov.au/system/files/Digital%20platforms%20inquiry%20-%20final%20report.pdf>

Aspect	Issues	Recommendations
	<p>browser (Chrome) markets enables the platform to set its search engine as a default option</p> <p>Significant barriers to entry and expansion in the social media market, where Facebook has substantial market power. The platform also enjoys substantial market power in the display advertising market</p> <p>Both platforms have substantial bargaining power in their dealings with news media businesses</p>	<p>done within six months following the ACCC report, the ACCC would ask the government to consider obliging Google to do so)</p> <p>The ACCC to reconsider the applicability of the Consumer Data Right (CDR) to digital platforms in the future – see A1.2.4 (a) below</p>
Relation between digital platforms and advertisers	<p>Lack of transparency in online advertising markets (e.g. regarding the operation of Facebook’s and Google’s algorithms)</p> <p>Facebook and Google can favour their businesses (self-preferencing) and apply other potentially harmful practices for advertisers such as restrictive clauses in customer contracts</p> <p>When the two platforms are present in related markets, discriminatory practices may be applied (e.g. when platforms owned by Facebook and Google have advantages in auctions)</p>	<p>A new digital platforms branch within the ACCC should develop expertise in digital markets to investigate potentially harmful practices for business users and consumers, and take enforcement actions</p> <p>Launch a separate inquiry into ad tech services and advertising agencies</p>
News media and digital platforms	<p>Changes made by digital platforms to the algorithms for displaying news content (including news links) come without warning</p> <p>Imbalances in bargaining power between certain digital platforms and news media businesses</p>	<p>Certain digital platforms should establish codes of conduct disciplining their relationships with news media businesses</p>
Digital platforms and consumers	<p>Information asymmetries between digital platforms and consumers regarding data collection practices by digital platforms</p> <p>Imbalances in bargaining power between digital platforms and</p>	<p>Reform the Australian Privacy Act⁸⁰⁴</p> <p>The Office of the Australian Information Commissioner (OAIC), the data protection authority, should develop a</p>

⁸⁰⁴ Privacy Act 1988, <https://www.legislation.gov.au/Details/C2020C00237>

Aspect	Issues	Recommendations
	consumers (e.g. take-it-or-leave-it terms, changes in terms without notice, bundled consent)	privacy code for digital platforms
	Lack of deterrence under the existing privacy and consumer legislation	Amend consumer legislation to prohibit certain unfair contract terms and trading practices

In response to the inquiry⁸⁰⁵, in December 2019 the government announced plans to take some actions in 2020:

- address imbalances in bargaining power between digital platforms and news media businesses through a voluntary code of conduct (however, in April 2020 the government asked the ACCC to develop a mandatory code);⁸⁰⁶
- ensure that “*privacy settings empower consumers*” with the introduction of a binding online privacy code for social media and other online platforms and with the reform of the Privacy Act; and
- take decisions on policy options to address unfair contract terms and on the prohibition of unfair trading practices.

Regarding the changes to the Android operating system, the government requested the ACCC “*to monitor and report back [in 2021] on Google’s rollout of options in Europe to allow consumers to choose their default internet browser and search engine.*”

Further, in February 2020 the government asked the ACCC to conduct two additional inquiries on:

- digital advertising services;⁸⁰⁷ and
- digital platforms price inquiry, covering providers such as search engines, social media, messaging apps, content aggregation services and online marketplaces.⁸⁰⁸

The second inquiry will assess the intensity of competition, with a focus on aspects such as prices and other terms and conditions by digital platforms, and practices that may harm consumers, e.g. relating to data collection practices. The government asked the ACCC to monitor the platform markets for the next five years until 2025, and to report every six months.

ii. Objective of regulatory intervention

The recommendations by the ACCC have led to several regulatory initiatives planned by the government with different objectives.

⁸⁰⁵ Government Response and Implementation Roadmap for the Digital Platforms Inquiry, December 2019, <https://treasury.gov.au/sites/default/files/2019-12/Government-Response-p2019-41708.pdf>

⁸⁰⁶ <https://ministers.treasury.gov.au/ministers/josh-frydenberg-2018/media-releases/accc-mandatory-code-conduct-govern-commercial>

⁸⁰⁷ Competition and Consumer (Price Inquiry - Digital Advertising Services) Direction 2020, <https://www.accc.gov.au/system/files/Ministerial%20direction%20-%20Digital%20advertising%20services%20inquiry.pdf>

⁸⁰⁸ Competition and Consumer (Price Inquiry - Digital Platforms) Direction 2020, <https://www.accc.gov.au/system/files/Ministerial%20direction%20-%20Digital%20platform%20services%20inquiry.pdf>

For example, the mandatory bargaining code aims to address imbalances in the bargaining power between some digital platforms (namely Facebook and Google) and Australian news media businesses. While imbalances exist in other areas, priority has been given to the specific news media area given its essential role for a well-functioning democracy.⁸⁰⁹

iii. Threshold for intervention

Australia is combining horizontal reforms with more targeted approaches, by tackling specific services provided by digital platforms (e.g. as with the mandatory bargaining code for news media businesses) and prioritising certain sectors (e.g. new consumer data right).

An ample part of the 2019 inquiry focused on different services provided by Facebook and Google, for which regulatory intervention is now planned. It did not include some other types of platforms such as online marketplaces, although the ACCC's recommendations were "*forward-looking and adaptable to other digital platforms where appropriate.*" The ongoing digital platforms price inquiry is covering a wider range of services provided by digital platforms, including online marketplaces and messaging apps.

In the case of the bargaining code, the government will decide which digital platforms are subject to it. It is expected that the code starts applying only to Facebook's and Google's services, e.g. Facebook News Feed, Instagram, Google Search and Google News. Currently, these services do not offer revenue-sharing arrangements to all news media businesses.

However, if imbalances in the bargaining power are found in relation to other digital platforms, the code could also be applied to them.⁸¹⁰ In particular, the government will take into account "*whether there is a significant bargaining imbalance between Australian news providers*" and the digital platforms.⁸¹¹

iv. Remedies

The holistic approach taken in Australia has led to regulatory reforms in different areas that are or may be relevant to digital platforms. The reforms that the government has planned to put forward are still ongoing or have not been initiated.

a) Consumer protection/privacy

The Treasury Laws Amendment (Consumer Data Right) Act 2019⁸¹² introduced data access and portability rights in the form of a new consumer data right (CDR) by means of amendments to the Competition and Consumer Act.

The new CDR aims to give consumers and small businesses greater control over their data, including through data portability. It will basically allow them to access data in a usable

⁸⁰⁹ Q&As: Draft news media and digital platforms mandatory bargaining code, July 2020, <https://www.accc.gov.au/system/files/DPB%20-%20Draft%20news%20media%20and%20digital%20platforms%20mandatory%20bargaining%20code%20Q%26As.pdf>

⁸¹⁰ Q&As: Draft news media and digital platforms mandatory bargaining code, July 2020, <https://www.accc.gov.au/system/files/DPB%20-%20Draft%20news%20media%20and%20digital%20platforms%20mandatory%20bargaining%20code%20Q%26As.pdf>

⁸¹¹ Article 52C Exposure Draft - Treasury Laws Amendment (News Media and Digital Platforms Mandatory Bargaining Code) Bill 2020, <https://www.accc.gov.au/system/files/Exposure%20Draft%20Bill%20-%20TREASURY%20LAWS%20AMENDMENT%20%28NEWS%20MEDIA%20AND%20DIGITAL%20PLATFORMS%20MANDATORY%20BARGAINING%20CODE%29%20BILL%202020.pdf>

⁸¹²

https://www.aph.gov.au/Parliamentary_Business/Bills_Legislation/Bills_Search_Results/Result?bId=r6370

format and to request a given provider to transfer such data to another provider. The new CDR is accompanied by 13 privacy safeguards.

The implementation of the data portability right is intended to apply across the whole economy, although it will be implemented gradually, starting with the banking sector. The energy and telecommunications sectors will follow. The ACCC consulted until 29 October 2020 on proposed changes to the CDR rules and a new proposed implementation roadmap to allow for the entry of a greater number and type of businesses in Consumer Data Rights.⁸¹³

On the eventual applicability of the CDR to digital platforms, the ACCC said “*data portability is unlikely to have a significant effect on barriers to entry and expansion in certain digital platform markets in the short term. If data portability or interoperability were identified to be beneficial in addressing the issues of market power and competitive entry or switching, the ACCC could recommend this to government.*”⁸¹⁴

b) News media

As stated above, in April 2020 the government asked the ACCC to develop a mandatory code of conduct to address the imbalances in the bargaining power between news media businesses and digital platforms.

The ACCC issued on 31 July 2020 a draft code, which was open to public consultation until 28 August 2020. The code will be introduced following its adoption by the Australian parliament.

The code is expected to cover a wide range of issues in the relations between the concerned platforms and news media businesses:

- data sharing (e.g. the concerned digital platforms should inform news businesses about the types of data collected from the platform users’ interactions with news content provided through the platform, regardless of whether or not the actual data is shared with the news businesses; the concerned digital platforms should also list and explain the data that is made available to news businesses);⁸¹⁵
- algorithmic transparency (e.g. the concerned digital platforms should inform news businesses about changes to algorithms when these “*are likely to have a significant effect on the ranking*” of news content; notice to news businesses should be given “*at least 28 days before the change is made*”, and also if the changes affect the display and presentation of news content, or the ranking of paywalled content);⁸¹⁶
- non-discrimination (e.g. the concerned digital platforms should ensure that their services do not discriminate between news businesses “*in relation to crawling, indexing, ranking, displaying or presenting*” news content);⁸¹⁷ and
- counterbalancing bargaining power (e.g. obligation to negotiate in good faith, mandatory arbitration is foreseen if the platform and the news media business do not reach an agreement within three months of negotiations).⁸¹⁸

813 ACCC consultation documents and submissions, <https://www.accc.gov.au/focus-areas/consumer-data-right-cdr-0/consultation-on-proposed-changes-to-the-consumer-data-right-rules>

814 Digital Platforms Inquiry, Final Report, page 30

815 Article 52M draft code

816 Articles 52N, 52O, 52P and 52Q draft code

817 Article 57W draft code

818 Articles 52X et seq. draft code

v. Institutional set-up

In the final report following the 2019 inquiry, the ACCC was against establishing a new regulator for digital platforms, as it would require considerable time to develop the necessary skills that existing regulators already have.

Instead, the ACCC recommended to equip existing regulators, namely the ACCC itself, the Australian Communications and Media Authority (ACMA) and the OAIC with additional functions to improve their oversight. In response to the inquiry⁸¹⁹, in December 2019 the government decided to establish a new unit within the ACCC, the specialist Digital Platforms Branch, to monitor the status of competition and consumer protection in digital platforms markets.

Existing Australian regulators and bodies are cooperating to address the different dimensions of the issues at stake. The ACCC, the OAIC and the Data Standards Body (DSB) are working together on the development and implementation of the CDR. The DSB is developing common technical standards to allow Australian consumers to access data held about them by businesses and direct its safe transfer to other businesses. The OAIC, with CDR investigative and enforcement powers, released in February 2020 the non-binding Privacy Safeguard guidelines.⁸²⁰

In the case of the bargaining code, arbitration will play an important role. If the platform and the news media business do not reach an agreement on the remuneration issue within three months of negotiations, the draft code foresees a binding arbitration process.⁸²¹

vi. Impact assessment at national level / effects on fairness, choice and innovation if relevant

In the final report following the 2019 inquiry, the ACCC stated that the news media code should include commitments to *“where the digital platform obtains value directly or indirectly from content produced by news media businesses, fairly negotiate with news media businesses as to how that revenue should be shared, or how the news media businesses should be compensated.”*

The ACCC stated that innovation *“is expected to continue with further developments in the range of services made available on digital platforms.”*⁸²²

vii. Relevance to EU platform regulation

The draft bargaining code resembles the EU Platform-to-business Regulation (P2B Regulation) with regard to the transparency obligations related to ranking and data policies. However, it goes well beyond the P2B Regulation as it contains a non-discrimination obligation, as well as mandatory and binding arbitration.

On the other hand, the scope of application of the draft code is very limited compared to the P2B Regulation, as it only tackles the relations between certain digital platforms and news media businesses.

⁸¹⁹ <https://treasury.gov.au/publication/p2019-41708>

⁸²⁰ Privacy Safeguard Guidelines, Version 2.0 July 2020, <https://www.oaic.gov.au/assets/consumer-data-right/cdr-privacy-safeguard-guidelines-v2.0-july-2020.pdf>

⁸²¹ Division 7 draft code

⁸²² Mandatory news media bargaining code, Concepts paper, 19 May 2020, <https://www.accc.gov.au/system/files/ACCC%20-%20Mandatory%20news%20media%20bargaining%20code%20-%20concepts%20paper%20-%2019%20May%202020.pdf>

Further, whereas the P2B Regulation applies horizontally to online intermediation services and search engines, the draft code will apply only to platforms where imbalances in the bargaining power with news media businesses are found.

Compared to the European Commission's inception impact assessment on the ex ante regulatory instrument for gatekeeper platforms,⁸²³ the code aims to address similar problems, such as the dependency by business users on a few platforms and imbalanced bargaining power.

h. B2B Unfair Trading Practices in the retail supply chain

i. Context and problem definition

Unfair terms and practices can take place in B2C or B2B relationships but are more frequent in the former because the imbalance in power and knowledge is often stronger in B2C relationships. This is why B2C unfair terms and practices are more precisely defined and extensively regulated at the EU level within the so-called consumer acquis.

Article 3(1) of the Unfair Contract Terms Directive (UCTD) defines *B2C unfair term* as follows:⁸²⁴

a contractual term which has not been individually negotiated shall be regarded as unfair if, contrary to the requirement of good faith, it causes a significant imbalance in the parties' rights and obligations arising under the contract, to the detriment of the consumer.

Article 5(2) of the Unfair Commercial Practice Directive (UCPD) defines a *B2C unfair practice* when:⁸²⁵

(a) it is contrary to the requirements of professional diligence,⁸²⁶ and
(b) it materially distorts or is likely to materially distort the economic behaviour⁸²⁷ with regard to the product of the average consumer whom it reaches or to whom it is addressed, or of the average member of the group when a commercial practice is directed to a particular group of consumers.

The Commission Communication on unfair trading practices in the food supply chain⁸²⁸ defines a *B2B unfair trading practice* as

⁸²³ <https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12418-Digital-Services-Act-package-ex-ante-regulatory-instrument-of-very-large-online-platforms-acting-as-gatekeepers>

⁸²⁴ Council Directive 93/13 of 5 April 1993 on unfair terms in consumer contracts, OJ [1993] L 95/29 as amended.

⁸²⁵ Directive 2005/29 of the European Parliament and of the Council of 11 May 2005 concerning unfair business-to-consumer commercial practices in the internal market, OJ [2005] L 149/22, as amended by Directive 2019/2161.

⁸²⁶ Professional diligence is defined as *the standard of special skill and care which a trader may reasonably be expected to exercise towards consumers, commensurate with honest market practice and/or the general principle of good faith in the trader's field of activity*: art. 2(h) UCPD.

⁸²⁷ Materially distort the economic behaviour of consumer is defined as *'using a commercial practice to appreciably impair the consumer's ability to make an informed decision, thereby causing the consumer to take a transactional decision that he would not have taken otherwise'* (art. 2(e) UCPD).

⁸²⁸ Communication from the Commission of 15 July 2014, Tackling unfair trading practices in the business-to-business food supply chain, COM (2014) 472. In the Green Paper of 31 January 2013 on unfair trading practices in the business-to-business food and non-food supply chain in Europe, COM (2013) 37, the Commission proposed a similar but slightly less precise definition of UTPs: *practices that grossly deviate from good commercial conduct and are contrary to good faith and fair dealing, they are typically imposed in a situation of imbalance by a stronger party on a weaker one.*

practice that grossly deviates from good commercial conduct, is contrary to good faith and fair dealing and is unilaterally imposed by one trading partner on another.

Thus the unfairness of a term or a practice is generally based on three cumulative criteria: (i) a violation of good faith or good commercial conduct, (ii) a creation of imbalance in the contractual relationship with the transfer of costs and shift of entrepreneurial risk to the weaker party,⁸²⁹ and (iii) a unilateral imposition.

At the EU level, B2B unfair terms and practices are mainly discussed in relation to the retail supply chain either offline, in particular for food distribution, or online in particular for intermediation platforms

In the Retail Market Monitoring Report of July 2010, the Commission observed that: '*certain contractual requirements applied directly by retailers (...) on their suppliers or by suppliers on primary producers could, in some circumstances, be considered unfair and likely to curb the growth and even the viability of certain competitive companies*' and that '*although certain national laws on unfair contractual terms between enterprises exist, they vary widely between Member States, which can lead to barriers fragmenting the internal market, distorting competition or increasing the risk of circumvention. In any event, the effectiveness of such rules is often curbed by the fear of retaliatory measures if infringements are reported.*'⁸³⁰

In the Green Paper of January 2013 on unfair B2B UTP in the retail supply chain,⁸³¹ the Commission identified, on the basis of several surveys and enquiries done at both EU and national levels, seven categories of B2B unfair terms and practices:

- *Lack of written contracts* such that the parties have no lasting proof of the terms agreed upon;
- *Ambiguous contract terms* allowing the stronger contractual party to impose additional obligations during the execution of the contract;
- *Unfair transfer of commercial risk* such as the transfer of risks to the weaker party which is not the best placed to avoid them, the financing of proprietary business activities of the stronger party or the abusive use of reverse margin practices;
- *Unfair use of information*, in particular confidential information by the stronger party for instance to develop competing products which would deprive the weaker party of the results of its innovation;
- *Retroactive contract changes* which have not been agreed in a sufficiently precise manner, such as deductions from the invoiced amount to cover promotion fees, unilateral discounts based on quantities sold, listing fees;
- *Unfair termination of commercial relationship*, such termination or disruption which is sudden and unjustified or without a reasonable period of notice;
- *Territorial supply constraints* which may be imposed by some multi-national suppliers to impede retailers from sourcing identical goods cross-border in a central location and distributing them to other Member States.

⁸²⁹ Commission Green Paper on unfair trading practices in the B2B food and non-food supply chain, COM (2013) 37, p. 21.

⁸³⁰ Report from the Commission of 5 July 2010, Retail market monitoring report, COM (2010) 355, p. 7. Those unfair practices are described in the accompanying Staff Working Document, SEC (2010), pp. 40-44.

⁸³¹ Commission Green Paper of 31 January 2013 on unfair trading practices in the business-to-business food and non-food supply chain in Europe, COM(2013) 37. See also the Summary of the responses to this Green Paper.

As a follow-up to the Green Paper, CEPS (2014)⁸³² did a very comprehensive study on the EU and national legal frameworks covering the B2B UTP in the retail supply chain. Out of a list of 30 terms and practices surveyed, the study identified 11 considered as representative of the core of the unfairness problem in B2B relationships. These are mapped to the seven categories of the Green Paper in Table 46 below.

Table 46. Main B2B unfair terms and practices in the retail supply chain

Commission Green Paper (2013)	Main B2B unfair terms and practices identified by the CEPS study (2014)
<i>Lack of written contracts</i>	- Lack of written contract
<i>Ambiguous contract terms</i>	- Lack of clarity in contract offer
<i>Unfair transfer of commercial risk</i>	- Liability disclaimers - Unilateral modification clauses - Terms unreasonably imposing or shifting risks
<i>Unfair use of information</i>	- Unfair use of confidential information - Unfair use of confidential information after contract expiry
<i>Retroactive contract changes</i>	- Abuse of economic dependence
<i>Unfair termination of a commercial relationship</i>	- Unfair breaking off of negotiation - Unfair contract termination - Refusal to negotiate

Source: CEPS 2014, p. 11

ii. EU rules against B2B UTP

There is no general rule directly regulating B2B unfair trading practices at EU level. However, some general rules have an indirect effect on those practices. Moreover, sector-specific rules regulate B2B unfair practices in the sectors where they can be particularly harmful.

- General EU rules with indirect effects on B2B terms and practices

There are few *horizontal* EU rules that have indirect effects on B2B unfair terms and practices:⁸³³

- *Competition rules* which protect firms and consumers against anti-competitive behaviours by undertakings having market power;⁸³⁴ they prohibit certain terms and practices in vertical relationships between suppliers and retailers, or business users and intermediation platforms;⁸³⁵
- The *Misleading and Comparative Advertising Directive* which protects traders and consumers against misleading advertising;⁸³⁶

⁸³² Renda A. et al. (2014), *Legal framework covering business-to-business unfair trading practices in the retail supply chain*, Study for the European Commission.

⁸³³ See Stuyck (2011); Commission Green Paper on unfair trading practices in the B2B food and non-food supply chain, COM (2013) 37, pp. 12-14; Commission Impact Assessment for the Proposal for a Regulation on promoting fairness and transparency in P2B, SWD(2018) 138, Annex 8. Some rules were also foreseen Commission Proposal of 11 October 2011 for a Regulation on a Common European Sales Law, COM (2011) 635.

⁸³⁴ Articles 101 and 102 TFEU.

⁸³⁵ In particular, Commission Guidelines of 20 April 2010 on Vertical Restraints, *O.J.* [2010] C 130/1. For the application of those rules in the online sector, see the Report of the Commission of 10 May 2017 on the e-commerce Sector Inquiry, COM (2017) 229.

⁸³⁶ Directive 2006/114 of the European Parliament and of the Council of 12 December 2006 concerning misleading and comparative advertising, OJ [2006] L 376/21.

- *The Late Payment Directive* which protects firms against late payment;⁸³⁷
- *The Trade Secret Directive* which protects firms against the unlawful acquisition, use and disclosure of trade secrets.⁸³⁸

Moreover, the *consumer acquis*⁸³⁹ applies to B2C relationships but can also be relied upon between traders with regard to conducts they deploy vis-à-vis consumers; hence it indirectly protects businesses from their competitors imposing unfair practices on consumers.⁸⁴⁰

However, all those rules only regulate indirectly B2B unfair practices and cannot effectively remedy many of the terms and practices identified above for the following reasons:

- Competition rules require the presence of (i) a high level of market power which is assessed over clients in general but do not necessarily cover dependency relationships assessed over one or few particular clients, and (ii) an anti-competitive behaviour which is not necessarily determined with the same normative criteria than those used for unfair practices.⁸⁴¹ Moreover antitrust rules only intervene *ex-post*.⁸⁴² Interestingly, the insufficiency of competition rules to deal with some causes of unfair practices is recognised by the competition authorities themselves.⁸⁴³ In particular, the fear/dependency issues, combined with the difficulty in establishing a theory of harm make it particularly difficult to challenge online platforms.
- The Directives on misleading advertising and on late payment prohibit only specific types of B2B unfair practices and not the main ones identified above;
- Finally, the consumer acquis could address only a few of the unfair practices identified above, mainly the ones covering the lack of written contract and unfair use of information.⁸⁴⁴

⁸³⁷ Directive 2011/7 on combating late payment in commercial transactions, OJ [2011] L 48/1.

⁸³⁸ Directive 2016/943 of the European Parliament and of the Council of 8 June 2016 on the protection of undisclosed know-how and business information (trade secrets) against their unlawful acquisition, use and disclosure, OJ (2016) L 157/1.

⁸³⁹ In particular the Unfair Contract Terms Directive and the Unfair Commercial Practices Directive.

⁸⁴⁰ Stuyck (2011). Indeed, Recital 8 of the UCPD notes that: '*This Directive directly protects consumer economic interests from unfair business-to-consumer commercial practices. Thereby, it also indirectly protects legitimate businesses from their competitors who do not play by the rules in this Directive and thus guarantees fair competition in fields coordinated by it*'. Moreover, as explained below, some Member States have extended the consumer acquis to B2B relationships.

⁸⁴¹ In that regard, Recital 9 of Regulation 1/2003 notes that: '*In so far as such national legislation pursues predominantly an objective different from that of protecting competition on the market, the competition authorities and courts of the Member States may apply such legislation on their territory. Accordingly, Member States may under this Regulation implement on their territory national legislation that prohibits or imposes sanctions on acts of unfair trading practice, be they unilateral or contractual. Such legislation pursues a specific objective, irrespective of the actual or presumed effects of such acts on competition on the market. This is particularly the case of legislation which prohibits undertakings from imposing on their trading partners, obtaining or attempting to obtain from them terms and conditions that are unjustified, disproportionate or without consideration*'.

⁸⁴² Also in that sense: Renda et al. (2014 :17);

⁸⁴³ Commission Green Paper on unfair trading practices in the B2B food and non-food supply chain, COM (2013) 37, p. 10 ; Commission Services Impact Assessment for the Proposal for a Regulation on promoting fairness and transparency in P2B, SWD(2018) 138, p. 42 ; Report of the European Competition Network of May 2012 on competition law enforcement and market monitoring activities by European competition authorities in the food sector; Valletti (2018).

⁸⁴⁴ As noted by Renda et al. (2014:64), This is explicitly recognised by the UCPD where Recital 8 states that: '*It is understood that there are other commercial practices which, although not harming consumers, may hurt competitors and business customers. The Commission should carefully examine the need for Community action in the field of unfair competition beyond the remit of this Directive and, if necessary, make a legislative proposal to cover these other aspects of unfair competition*'. Thus on the need to have EU rules to fight against B2B unfair practices I disagree with Stuyck (2011) according to whom: '*the field that can be occupied by such rules is very limited in view of the*

The EU has also adopted *semi-horizontal rules* that apply to some categories of services independently of the economic sector where they are provided. This is the case of *the e-commerce Directive* which provides for transparency obligations and liability exemptions for the providers of some types of information society services.⁸⁴⁵ Those provisions are thus applicable to the online intermediation platforms.

- Sectoral EU rules with direct effect on B2B unfair terms and practices

Given the ineffectiveness of existing horizontal rules to address B2B unfair trading practices, the EU has adopted *specific rules* in the sectors where those practices were perceived as widespread and harmful and/or where the services provided were seen as fundamental to the economy or the society. In particular, this is the case in:

- The *network industries* where a stricter regulatory approach has been motivated by the transition from monopoly to competition, the large size of some players and the essential nature of the services provided. For instance, the Open Internet Regulation imposes on the providers of Internet access services a series of obligation related to transparency and net neutrality.⁸⁴⁶ The European Electronic Communications Code imposes on the providers of electronic communications services several obligations related to transparency, bundling and contract termination;⁸⁴⁷
- The *digital sector*: the P2B Regulation increases transparency and provide for out-of-Court dispute resolution mechanisms In order to promote fairness and transparency for business users of online intermediation services;
- The *financial sector*: the Payment Services Directive⁸⁴⁸ imposes on the providers of payment services obligations with regard to transparency, liability and access to customer data.
- The *food retail distribution* sector: the UTP Food Supply contains two black list of prohibited unfair practices.

iii. National rules against B2B UTP

CEPS (2012)⁸⁴⁹ and (2014) did two extensive comparative studies on national rules regulating B2B terms and practices. Both studies show a large diversity in the scope of those national rules:

- some are horizontal and apply to all the sectors of the economy;
- others are semi-horizontal and apply to some categories of activities (such as retail distribution);

existence of the spill over effect of B2C rules in this area and of extensive protection of intellectual property rights. In addition, there is no evidence of important obstacles for the achievement of the internal market as a result of disparities of legislation in this field. I think Stuyck overestimates the effectiveness of existing EU rules in regulating B2B practices and underestimates the costs the fragmentation of national rules.

⁸⁴⁵ Directive 2000/31 of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market (Directive on electronic commerce), OJ [2000] L 178/1.

⁸⁴⁶ **Regulation 2015/2120 of the European Parliament and of the Council of 25 November 2015 laying down measures concerning open internet access**, OJ [2015] L 310/1.

⁸⁴⁷ EECC, Articles 95-100.

⁸⁴⁸ **Directive 2015/2366 of the European Parliament and of the Council of 25 November 2015 on payment services in the internal market** OJ [2015] L 337/35.

⁸⁴⁹ CEPS (2012), *The impact of national rules on unilateral conduct that diverge from Article 102 TFEU*, Study for the European Commission.

- and others are sectoral and apply only to specific economic sectors. For this last category, CEPS (2012:97-107) observed that the most regulated sectors for unilateral conducts are the network industries, the financial services sector and the retail distribution of food.

The two CEPS studies also show a wide diversity in the type of national rules:⁸⁵⁰

- *General principles of civil and/or commercial laws* which contain a duty of fairness such as *contra bonos mores* conduct, performance/negotiations in accordance with the principles of good faith, good morals, fairness or loyalty. For instance, the civil codes of many Member States condemn behaviours which are contrary to *bona fides*;
- *Extension of existing EU laws*: some Members are interpreting more broadly EU competition law concepts - like dominance or abuse – to cover more anti-competitive/unfair practices while others have extended the scope of the EU consumer acquis to B2B relationships;⁸⁵¹
- *Adoption of general rules to directly address some unilateral conduct* which are considered as unfair such as abuses of economic dependence or superior bargaining power, sales below costs or tied sales;⁸⁵²
- *Adoption of co/self-regulation schemes* which are often sectoral; for instance in several Member States, national Codes of Conduct prohibiting unfair practices in food distribution have been adopted by stakeholders.⁸⁵³

iv. Institutional set-up

National practices are diverse depending on the type of rules to be enforced and the traditions of the Member States concerned. The main enforcement mechanisms rely on: (i) judicial courts, (ii) administrative authorities which may have different investigation and sanctioning powers, and (iii) co/self-regulatory bodies.

CEPS (2014) shows that judicial courts alone are often not effective enough because the weaker party in the contract may fear retaliation if it brings a case before a court. CEPS also shows that co/self-regulation is most effective when combined with public judicial and administrative enforcement which will give sufficient incentives to firms to comply with the private rules. Thus, the three branches of the 'enforcement triangle' are complement rather than substitute:⁸⁵⁴

- Judicial courts are useful because of their horizontal competence and their experience in applying general principles of law. But they are not enough because of their lack of specific expertise and more importantly, the fear factor in a dependency relationship;

⁸⁵⁰ This has also been confirmed by the Commission Services Impact Assessment for the Proposal for a Regulation on promoting fairness and transparency in P2B, SWD (2018) 138, pp. 90-91.

⁸⁵¹ CEPS (2014:64) notes that 8 Member States have extended the Unfair Commercial Practices Directive to B2B relationships; among those, 2 have operated a full extension, including the black list of unfair commercial practices: Austria and Sweden; 4 have not extended the list of practices contained in the Directive (Denmark, Finland, Germany, Spain); 1 has done so only limited to misleading practices (France); and 1 has limited the extension to relationships between businesses and micro-enterprises (Italy). Few other countries have applied or used other types of lists as source of interpretation in B2B relations.

⁸⁵² As explained by CEPS (2012:8), some Member States have adopted those rules within national competition provisions while others have adopted them outside competition law.

⁸⁵³ Commission Staff Impact Assessment for the proposal for a Directive on unfair trading practices in business-to-business relationships in the food supply chain, SWD (2018) 92.

⁸⁵⁴ Also: Cafaggi F. and Iamiceli P. (2018), Specific regulations on Unfair Trading Practices in Member State in the Business-to-Business Retail Supply Chain, in Annex F of the Impact Assessment, SWD(2018) 92

- Therefore, courts should be complemented with ‘powerful, agile administrative body empowered to launch ex officio investigations, actively protecting the confidentiality of complainants, and credibly exercising their power to impose sanctions and mediate between the involved parties’ (CEPS, 2014: 18); those authorities should have the necessary resources and expertise as well as sufficient powers to investigate and collect information and to sanction;
- Moreover, when co/self-regulation is agreed, their enforcement needs to be closely monitored and reported, ideally to a public authority.

v. Relevance to EU platform regulation

Online intermediation in a business to consumer environment is a form of retail supply. To be sure, Martens (2016:13-18)⁸⁵⁵ explains that online intermediation, and the more general concepts of platforms and multi-sided markets, may be defined more or less broadly. Depending on this choice, online intermediation platforms can either be considered as a retailers or not, but in any case, online intermediation shares many characteristics of the retail supply.⁸⁵⁶

Thus, obvious parallels exist between B2B unfair terms and practices imposed in the retail supply chain and those imposed in the online intermediation services. Indeed the Staff Working Document accompanying the Commission Communication of January 2012 on e-commerce noted that: *‘these business practices (identified in the Retail Market Monitoring Report – mentioned above) can affect electronic commerce as much as their “brick and mortar” competitors and indeed be more prevalent in that sector. Abuses of market power, especially at the expense of SMEs, are likely to exist in the online as in the offline sector. Other practices may be specific to electronic commerce.’*⁸⁵⁷ Worse, if the information asymmetry is higher and the market contestability is weaker for online intermediation platforms than for offline distribution infrastructures, then the risks and the costs of unfair practices are higher.

In 2016-2017, the Commission undertook an extensive fact-finding exercise on B2B practices in the online platforms environment.⁸⁵⁸ In this context, Ecorys (2017) observed that: *‘a total of 46% of business users responded that they have experienced problems and disagreements with the platforms in the course of their business relationship. Among the business users with more than half of turnover generated via online platforms (heavy users), the share of those that experienced problems is significantly higher (75%). Out of those who*

⁸⁵⁵ Martens B. (2016), An Economic Policy Perspective on Online Platforms, *JRC Digital Economy Working Paper 2016-05*.

⁸⁵⁶ Interestingly, in a case regarding the interpretation of the concept of ‘intermediaries’ of Article 11 of the Intellectual Property Enforcement Directive 2004/48, the Court of Justice of the EU judged that online and offline intermediaries should be treated in the same way and that the Directive covers both types of intermediaries. The Court decided that: *‘The fact that the provision of sales points concerns an online marketplace or a physical marketplace such as market halls is irrelevant in that connection. It is not apparent from Directive 2004/48 that the scope of the directive is limited to electronic commerce. Moreover, the objective stated in recital 10 of that directive of ensuring a high, equivalent and homogeneous level of protection of intellectual property in the internal market would be substantially weakened if an operator which provides third parties with access to a physical marketplace such as that at issue in the main proceedings, on which those third parties offer in that marketplace the sale of counterfeit branded products, could not be the subject of the injunctions referred to in the third sentence of Article 11 of that directive’*: Case C-494/15 *Hilfinger et al. v Delta Center*, EU:C:2016:528, para 29.

⁸⁵⁷ Commission Staff Working Document of 11 January 2012, Online services, including e-commerce, in the Single Market, SEC (2011) 1641, p. 83.

⁸⁵⁸ The fact-finding was announced in the Communication of the Commission of 25 May 2016 on Online platforms, COM (2016) 288. The results are summarised in the Impact Assessment for the Proposal for a Regulation on promoting fairness and transparency in P2B, SWD (2018) 138 and its Annexes. See also Duch-Brown (2017b) and EY (2017)

have experienced problems 21% indicated that they occurred often over the course of the business relationship. For heavy users of online platforms, a significantly higher share (32%) have experienced problems often.⁸⁵⁹ The study has then identified the six most important unfair terms and practices. Most of them relate to conducts taking place before or during the execution of the contract while one group of practices relate to dispute resolution possibilities.

Table 47 below presents the main P2B unfair practices according to the categories of the Commission Green Paper on B2B unfair practices.

Table 47. Main unfair terms and practices in the online intermediation chain

Commission Green Paper (2013)	Main P2B unfair terms and practices identified by the Ecorys Study (2017)
<i>Lack of written contracts</i>	
<i>Ambiguous contract terms</i>	- Search and ranking: practices related to search and ranking (lack of transparency, rules and means for users to control the results).
<i>Unfair transfer of commercial risk</i>	- Terms and conditions: lack of or very short-term prior notice about changes and continuation of use as a presumption of acceptance of changes - Data access and portability: Lack of transparency of the platforms' terms and conditions and/or their practice on data and limitation of the extent to which users can access, use and transfer data relating to or generated based on the transactions carried out through platforms - Liability disclaimers - Lack of penalties for platforms.
<i>Unfair use of information</i>	- Platforms competing with business users or limiting options: platform favouring their own products and limitations of choice of auxiliary services.
<i>Retroactive contract changes</i>	
<i>Unfair termination of a commercial relationship</i>	- Access to the platform: content or product removal / delisting / termination of an account or product.

Source: Authors on the basis of Ecorys (2017)

i. B2B Unfair Trading Practices in the food supply chain

i.Context and problem definition

Due to the increasing complaints from food suppliers, several investigations and fact-finding exercises were launched to determine whether unfair terms and practices were imposed in the food supply chain and, if it was the case, what could be their causes and consequences. At EU level, the Commission set up in 2010 the High-Level Forum for Better Functioning of the Food Supply Chain.⁸⁶⁰ Also, in May 2012, the European Competition Network, which

⁸⁵⁹ See p. ix of the Study.

⁸⁶⁰ Commission Decision of 30 July 2010 establishing the High Level Forum for a Better Functioning Food Supply Chain, OJ [2010] C 201/03.

assembles the national competition authorities and the Commission, adopted a Report on competition enforcement in the food sector.⁸⁶¹

At the request of the Commission, the B2B Forum of the High-Level Forum for Better Functioning of the Food Supply Chain agreed in November 2011 on a set of good principles and a list of examples of unfair and fair practices in food distribution.⁸⁶²

Table 48. Main B2B unfair terms and practices in the retail food supply chain

B2B unfair terms and practices identified in Code of conduct (2011)	Commission Green Paper on B2B UTP in retail supply (2013)
- Refusing or avoiding to put essential terms in writing.	<i>Lack of written contracts</i>
	<i>Ambiguous contract terms</i>
<ul style="list-style-type: none"> - General terms and conditions that contain unfair clauses; - Imposing a guarantee of margin via payment for no performance or a requirement to fund a contracting party's proprietary business activities or promotion, preventing a contracting party from making legitimate marketing and promotional claims on their products; - Imposing listing fees that are disproportionate to the risk incurred in stocking a new product; - Imposing on a contracting party the purchase or supply of a set of products or services tied to another set of products or services; - Deliberately disrupting delivery to obtain unjustified advantage. 	<i>Unfair transfer of commercial risk</i>
<ul style="list-style-type: none"> - Use or sharing with a third party, sensitive information provided confidentially by the other contracting party, without the latter's authorization, in a way that enables it to obtain a competitive advantage; - Withholding essential information relevant to the other party in contractual negotiations and which the other party could legitimately expect to receive. 	<i>Unfair use of information</i>
- Non-contractual retroactive unilateral changes in the cost or price of products or services.	<i>Retroactive contract changes</i>
<ul style="list-style-type: none"> - Unilateral termination of a commercial relationship without notice, or subject to an unreasonably short notice period and without an objectively justified reason; - Contractual sanctions applied in a non-transparent manner and disproportionate to damages suffered or sanctions imposed without any justification. - Threatening business disruption or termination of the business relationship to obtain an advantage without objective justification (for example by punishing a contracting party for exercising its rights, demanding payment for services not rendered or goods not delivered, or demanding payments manifestly not corresponding to the value/cost of the service rendered). 	<i>Unfair termination of a commercial relationship</i>

⁸⁶¹ Report of the European Competition Network of May 2012 on competition law enforcement and market monitoring activities by European competition authorities in the food sector.

⁸⁶² <https://supplychaininitiative.eu/about-initiative/principles-good-practice-vertical-relationships-food-supply-chain>

Then in January 2013, a framework for the implementation and enforcement of those principles was established.⁸⁶³

Although noting the progress made thanks to self-regulation, in July 2014, the Commission called for an improvement of the rules and the enforcement of the Supply Chain Initiative (as it was now called) and complementary regulatory actions.⁸⁶⁴ This led the members of the Supply Chain Initiative to agree in November 2017 on additional principles on fair dealing, information and confidentiality⁸⁶⁵ and, in February 2018, on revised and improved rules of governance and operations.⁸⁶⁶

However, the Commission found this improved self-regulation was not effective enough as agricultural providers – the main supposed beneficiaries of the scheme – did not sign up to the scheme due to confidentiality and enforcement concerns. Moreover, more and more Member States were adopting national legislations to regulate B2B terms and practices in food distribution, leading to increasing risks of regulatory fragmentation of the single market.⁸⁶⁷ Therefore, in 2019 a Directive establishing a black list of prohibited B2B unfair terms and practices and setting up an effective institutional framework to enforce such prohibitions was adopted.⁸⁶⁸

Thus, by monitoring the retail supply chain in Europe, the Commission has identified several B2B unfair practices, in particular in relation to the lack of written contracts and ambiguous terms, the transfer of risk to the weaker party, the use of information (in particular confidential information), retroactive contract changes and termination of the contract. According to the EU institutions, those terms and practices are particularly widespread and harmful in the food supply chain, which has justified a more active role of the authorities in that sector.⁸⁶⁹

ii. Objective of regulatory intervention

The Directive aims to address the significant imbalances in bargaining power between suppliers and buyers of agricultural and food products which lead to UTP when larger and more powerful trading partners seek to impose certain practices or contractual arrangements which are to their advantage in relation to a sales transaction. Those practices may, for example: grossly deviate from good commercial conduct, be contrary to good faith and fair dealing and be unilaterally imposed by one trading partner on the other; impose an unjustified and disproportionate transfer of economic risk from one trading partner to another;

⁸⁶³ <https://supplychaininitiative.eu/about-initiative/framework>

⁸⁶⁴ Communication from the Commission of 15 July 2014, Tackling unfair trading practices in the business-to-business food supply chain, COM (2014) 472. See also the Report of the Commission of 29 January 2016 on unfair business-to-business trading practices in the food supply chain, COM (2016) 32.

⁸⁶⁵ <https://supplychaininitiative.eu/recommendation-good-practice-relation-principles-fair-dealing-information-confidentiality-and>

⁸⁶⁶ <https://supplychaininitiative.eu/about-initiative/rules>

⁸⁶⁷ For comparative overview of specific national laws against B2B unfair practices in the food distribution, see Cafaggi F. and Iamiceli P. (2018), Specific regulations on Unfair Trading Practices in Member State in the Business-to-Business Retail Supply Chain, in Annex F of the Impact Assessment, SWD(2018) 92. and Swinnen J. and Vandeveld S. (2017), 'Regulating UTPs: diversity versus harmonisation of Member State rules', in *Unfair trading practices in the food supply chain, JRC Technical Reports*, 39-59.

⁸⁶⁸ Directive 2019/633 of the European Parliament and of the Council of 17 April 2019 on unfair trading practices in business-to-business relationships in the agricultural and food supply chain, OJ [2019] L111/59. The Directive should be applicable on 1 November 2021.

⁸⁶⁹ However, Sexton R.J. (2017), 'Unfair trade practices in the food supply chain: defining the problem and the policy issues', in *Unfair trading practices in the food supply chain, JRC Technical Reports*, p. 11 notes that: 'there are substantial gaps in the academic literature on UTPs in food supply chains, making the scale of the problem difficult to assess.'

or impose a significant imbalance of rights and obligations on one trading partner. Certain practices might be manifestly unfair even when both parties agree to them.⁸⁷⁰

The Directive creates a minimum EU standard of protection against UTP in order to reduce the occurrence of such practices which are likely to have a negative impact on the living standards of the agricultural community. Interestingly, the legal basis of the Directive is Article 43(2) TFEU which relates to the Common Agricultural Policy and its objectives which includes a fair standard of living for the agricultural community.

iii. Threshold for intervention

The UTP Food Supply Directive applies to the B2B Unfair Trading Practices which occur (i) in relation to sales of agricultural and food products, (ii) when the supplier and/or the buyer is established in the EU and (iii) when there is an unbalanced relationship between suppliers (the weakest party) and buyers (the strongest party), such imbalance is measured by the gap between the annual turnover of the supplier and the buyer.

Suppliers	Buyers
< €2m	> €2m
€2m – 10m	> €10m
€10m – €50m	> €50m
€50m – €150m	> €150m
€150m – €350m	> €350m

iv. Ex ante remedies

The UTP Food Supply Directive prohibits two black lists of unfair terms and practices and is of minimal harmonisation (hence Member State can adopt stricter rules).⁸⁷¹

The first list contains practices which are always prohibited and includes the following nine clauses:⁸⁷²

- *late payment*, later than 30 days for perishable products and 60 days for other products;
- the buyer *cancels orders* of perishable products at such *short notice* that a supplier cannot reasonably be expected to find an alternative means of commercialising or using those products; notice of less than 30 days shall always be considered as short notice;
- the buyer *unilaterally changes the terms* of a supply agreement for products that concern the frequency, method, place, timing or volume of the supply or delivery of the agricultural and food products, the quality standards, the terms of payment or the prices;
- the buyer requires *payments from the supplier that are not related* to the sale of the agricultural and food products of the supplier;

⁸⁷⁰ UTP Food Supply Directive, rec.1.

⁸⁷¹ UTP Food Supply Directive, art.9.

⁸⁷² UTP Food Supply Directive 2019/633, art. 3(1)

- the buyer requires the supplier to *pay for the deterioration or loss*, or both, of the products that occurs on the buyer's premises or after ownership has been transferred to the buyer, where such deterioration or loss is not caused by the negligence or fault of the supplier;
- the buyer *refuses to confirm in writing the terms* of a supply agreement between the buyer and the supplier for which the supplier has asked for written confirmation;
- the buyer unlawfully acquires, uses or discloses the *trade secrets* of the supplier;
- the buyer threatens to carry out, or carries out, acts of *commercial retaliation against the supplier if the supplier exercises its contractual or legal rights*, including by filing a complaint with enforcement authorities or by cooperating with enforcement authorities during an investigation;
- the buyer requires *compensation* from the supplier for the cost of *examining customer complaints* relating to the sale of the supplier's products despite the absence of negligence or fault on the part of the supplier.

The second list contains practices which are prohibited if not agreed in an unambiguous manner at the conclusion of the contract and contains the following six clauses:

- the buyer *returns unsold products* to the supplier *without paying* for those unsold products and/or without paying for the disposal of those products;
- the supplier is charged *payment as a condition for stocking, displaying or listing* its products, or of making such products available on the market;
- the buyer requires the supplier to *bear* all or part of the *cost of any discounts* on products that are sold by the buyer as part of a promotion;
- the buyer requires the supplier to *pay for the advertising* by the buyer of products;
- the buyer requires the supplier to *pay for the marketing* by the buyer of products;
- the buyer charges the supplier for *staff for fitting-out premises* used for the sale of the supplier's products.

v. Institutional set-up

Member State should designate a national enforcement authority in charge of enforcing the blacklisted clauses.⁸⁷³ Suppliers - or organisations of suppliers acting for their members - may address complaints either to the enforcement authority of the Member State in which the supplier is established or to the authority of the Member State in which the buyer that is suspected to have engaged in a prohibited trading practice is established. The place of the complaint determines the competence of the national authorities. To alleviate the fear factor, the authority should protect the identity of the complainant when requested by the complainant.⁸⁷⁴

The national enforcement authorities should have the power to conduct investigation and require all necessary information and carry unannounced inspections. If the authority finds an infringement of the Directive, it shall require the buyer to bring the prohibited trading practice to an end and it may impose fines and other penalties which are effective, proportionate and dissuasive, taking into account the nature, duration, recurrence and gravity of the infringement. The authority may also impose interim measures.⁸⁷⁵

To contribute to the internal market, National enforcement authorities should cooperate effectively with each other and with the Commission, and provide each other with mutual

⁸⁷³ UTP Food Supply Directive, art.4.

⁸⁷⁴ UTP Food Supply Directive, art.5.

⁸⁷⁵ UTP Food Supply Directive, art.6.

assistance in investigations that have a cross-border dimension. They shall meet at least once a year and discuss best practices, new cases and new developments. They may adopt recommendations in order to encourage the consistent application of the Directive and to improve its enforcement.⁸⁷⁶

j. Electronic communications

i. Objective of regulatory intervention

The EECC⁸⁷⁷ lists four primary general objectives that should be followed by the authorities in charge of the electronic communications regulation: (i) the promotion of connectivity and access to very high capacity fixed and mobile networks; (ii) the promotion of effective competition in the provision of electronic communications networks and services, including infrastructure-based competition; (iii) the promotion of the EU internal market; and (iv) the promotion of citizens' interests.⁸⁷⁸

The EECC does not set an order of priority between these four objectives. A balancing exercise may be required when they conflict with each other, for instance when extensive network access obligations foster the provision of new services but deter investment in new high-speed networks. In such cases, the balancing should be done by the national authorities in charge of implementing them and Member States may not adopt measures depriving NRAs from their necessary margin of discretion on how a relative weighting of the conflicting objectives should be carried out in view of the specific circumstances. The need for such a case-by-case weighting exercise is one of the 'raisons d'être' of the independence granted to the NRAs.

ii. Threshold for intervention

The Significant Market Power ("SMP") designation is inspired by the dominance standard used under EU competition rules. The procedure undertaken is as follows:⁸⁷⁹

First, the Commission and the NRAs must identify relevant markets in the electronic communications sector which may justify the imposition of *ex ante* regulatory obligations, in addition to the *ex post* prohibitions available under competition law. This identification is based on the satisfaction of the so-called 'three criteria test', which requires the identification of: (i) the presence of high and non-transitory barriers to entry; (ii) a market structure which, taking account of those barriers to entry, does not tend towards effective competition within the time horizon of the market analysis (usually three, but now up to five years); and (iii) the insufficiency of competition law alone to address adequately the market failure(s) identified under the first two criteria.⁸⁸⁰

Second, the NRA defines the product and geographic boundaries of the selected markets.

Third, the NRA then determines whether one or several undertakings enjoy an individual or collective dominant position on those identified markets and, when that is the case, designates them as holding SMP status.

iii. Ex ante remedies

If one or several providers of electronic communications network or service has been designated as having SMP on a retail or a wholesale market, the NRA should impose

⁸⁷⁶ UTP Food Supply Directive, art.8.

⁸⁷⁷ Directive 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code, OJ [2018] L 321/36.

⁸⁷⁸ EECC, art.3(2). Art.1(2) EECC bundles the four regulatory objectives into two main policy aims.

⁸⁷⁹ EECC, arts. 63-83.

⁸⁸⁰ EECC, Article 67(1). Those criteria are derived from Article 2 of the Commission Recommendation 2014/710 of 9 October 2014 on relevant product and service markets within the electronic communications sector susceptible to *ex ante* regulation, OJ [2014] L 295/79. Those criteria are in turn developed and explained in Recitals 11 to 16 of this Recommendation.

asymmetric regulatory obligations. The choice of possible obligations should be based on the nature of the problem identified in the market analysis and justified in light of the four main EECC objectives.⁸⁸¹ In making this choice, there is a priority for wholesale obligations (i.e. imposed on the wholesale markets) over retail obligations and another priority for behavioural obligations over structural obligations.

With regard to wholesale behavioural obligations, the NRA may choose among a menu of five obligations listed in the EECC:

- *Transparency and reference offer*,⁸⁸² which contains a description of the relevant offerings broken down into components according to market needs and the associated terms and conditions. In most situations, a transparency obligation is not an effective remedy in itself, but is used to facilitate the implementation of other remedies, such as access and pricing obligations and, where necessary, impose changes to reference offers.
- *Prohibition to discriminate*, in particular between its own services or those of its subsidiaries or partners and access seekers.⁸⁸³ Equivalence of access can be of two types: (i) the *Equivalence of Inputs* which means the provision of services and information to internal and third-party access seekers on the same terms and conditions, including price and quality of service levels, within the same time scales using the same systems and processes, and with the same degree of reliability and performance; or (ii) the *Equivalence of Output* which means the provision to access seekers of wholesale inputs comparable, in terms of functionality and price, to those the SMP operator provides internally to its own downstream businesses albeit using potentially different systems and processes. In order to monitor effectively compliance with the non-discrimination obligation, the NRA may impose the use of Key Performance Indicators (KPIs) in relation to the ordering process, the provision of service, the quality of service, or the fault repair times.
- *Accounting separation* in relation to specified activities related to interconnection or access.⁸⁸⁴ NRAs may also require a vertically integrated SMP undertaking to make transparent its wholesale prices and its internal transfer prices. Accounting separation obligations assist the NRA in monitoring compliance with non-discrimination obligations and in setting cost-based tariffs for access and interconnection.
- *Access to, and use of, civil engineering and network elements* when denial of access hinder the emergence of a sustainable competitive market.⁸⁸⁵ The concept of access may also cover open access to technical interfaces, protocols or other key technologies indispensable for the interoperability or specific services needed to ensure interoperability of end-to-end services to users. To preserve investment incentives, NRAs should take into account the investment and risks taken by the facility owner and the technical and economic viability for the access seeker of using or installing competing facilities. Moreover, the NRAs should favour the most upstream remedy first (such as access to civil engineering elements) where the possibility of duplication can be the smallest as the economies of scale and scope are the lowest.

⁸⁸¹ EECC, art.68.

⁸⁸² EECC, art.69.

⁸⁸³ EECC, art.70 and Commission Recommendation 2013/466 of 11 September 2013 on consistent non-discrimination obligations and costing methodologies to promote competition and enhance the broadband investment environment [2013] OJ L 251/13.

⁸⁸⁴ EECC, art.71 and Commission Recommendation 2005/698 of 19 September 2005 on accounting separation and cost accounting systems under the regulatory framework for electronic communications [2005] OJ L 266/64.

⁸⁸⁵ EECC, art. 72 and 73.

- *Price controls and cost orientation* for the provision of specific types of interconnection or access when the lack of effective competition may lead to excessive prices or a price squeeze to the detriment of end-users.⁸⁸⁶

In the exceptional circumstances where the behavioural wholesale obligations failed to achieve effective competition and important market failures persist in relation to the provision of certain wholesale access product, the NRA may impose on a vertically integrated SMP undertaking an obligation to place its wholesale activities in an independent business entity. This wholesale unit should supply access products and services to all undertakings, including to other business entities within the parent company, on the same timescales, terms and conditions and by means of the same systems and processes *i.e.*, an equivalence of inputs.⁸⁸⁷ As the imposition of functional separation is very intrusive, the NRA can only impose it after having done a thorough analysis of market prospects (in particular regarding the possibilities of infrastructure-based competition) and impact assessment as well as having obtained the prior approval by the Commission.⁸⁸⁸

A vertically integrated SMP operator may voluntarily decide to separate its wholesale and retail activities for financial reasons to attract investors willing to trade high margin for long-term security or regulatory reasons to reduce the obligations imposed by the NRA. In this case, the operator may transfer its local access network assets or a substantial part thereof to a separate legal entity under different ownership (vertical separation) or establish a separate business entity in order to provide all retail providers, including its own retail divisions, with fully equivalent access products (functional separation). In those circumstances, the SMP operator should notify the NRA at least three months in advance of its separation plan and possible commitments regarding the access conditions applicable after the separation.⁸⁸⁹ As such separation affects substantially the market conditions, in particular by reducing the incentives of the wholesale company or entity to favour the retail arm of the SMP operator, the NRA should review the regulatory obligations that were imposed before the separation and amend or withdraw them if appropriate.⁸⁹⁰ The NRA may also make binding, wholly or in part, the commitments of the operator for the entire period for which they are offered and, then, monitor the implementation of those commitments.⁸⁹¹

According to the proportionality principle, the NRA should favour the imposition of obligations on the wholesale markets and impose obligations on a retail market only when (i) such market is not effectively competitive; and (ii) the imposition of wholesale obligations could not solve the identified competition problem.⁸⁹² When those limiting conditions are met, the NRA enjoys a large discretion in deciding which obligations to impose among the open list provided in the EECC. The NRA may impose retail tariff obligations such as the prohibition of excessive or predatory prices as well as the imposition of a price cap or cost-based prices. In those cases, necessary and appropriate cost-accounting systems should be implemented. The NRA could also prohibit undue preference to specific end-users and unreasonable bundles of services.⁸⁹³ As always, obligations should be based on the nature of the problem identified, justified in light of the four main objectives of the EECC and proportionate.

⁸⁸⁶ EECC, art.74(1).

⁸⁸⁷ EECC, art.77(1).

⁸⁸⁸ EECC, arts 77(2) and 68(3).

⁸⁸⁹ EECC, art.78(1).

⁸⁹⁰ EECC, art.78(2).

⁸⁹¹ EECC, art.78(2) and (4) and recital 206.

⁸⁹² EECC, art.83(1).

⁸⁹³ EECC, art.83(2) and (3).

iv. Institutional set-up

National level

The national regulatory authorities and other competent authorities play the key role in implementing the provisions of the EECC. They are entrusted with numerous tasks and enjoy broad discretionary powers as the exercise of those tasks requires complex technical, economic assessment. Those important and discretionary powers explain and justify the extensive independence enjoyed by the authorities. Two degrees of independence are relevant:

the first degree is *independence vis-à-vis the operators* to alleviate conflict of interest and that the authorities are referees and players at the same time. It implies that the authorities are legally distinct and functionally independent of any natural or legal person providing electronic communications networks, equipment or services;⁸⁹⁴

the second degree is political independence, i.e. *independence vis-à-vis the Parliament and government* in order to guarantee the credibility of authorities in regulating the sector in the long-term interest of the users and ensure that they exercise their powers impartially, transparently and in a timely manner. It implies a protection for the heads of the authorities⁸⁹⁵ as well as an autonomy in managing the budget.⁸⁹⁶

However, independence does not mean absence of accountability. Indeed, the EECC acknowledges the legitimacy of supervision mechanism in accordance with national constitutional law.⁸⁹⁷ NRAs must also report annually and transparently, inter alia, on the state of the electronic communications market, on the decisions they adopt, on their human and financial resources and how those resources are attributed, as well as on future plans.⁸⁹⁸

Moreover, any user or provider of electronic communications networks or services who is affected by a decision of the competent authority has a right of appeal to an independent appeal body.⁸⁹⁹ The appeal body should take the merits of the case into account and not limit its control to procedural matters.⁹⁰⁰ The appeal process should be effective and the appeal proceedings should not be unduly lengthy. Pending the outcome of the appeal, the decision of the competent authority stands, unless interim measures are granted.⁹⁰¹

The EECC also imposes far-reaching transparency obligations on competent authorities, before taking measures having significant market impact. They should run public consultations giving interested parties the opportunity to comment on the draft measure. Such consultation should last a reasonable period, at least one month unless there are exceptional circumstances. The results of the consultation should be made public, except in the case of confidential information.⁹⁰²

Besides the requirements of independence and transparency, the EECC obliges Member States to entrust national authorities with the power to impose penalties which are appropriate, effective, proportionate and dissuasive.⁹⁰³

⁸⁹⁴ EECC, art.6.

⁸⁹⁵ EECC, art.7: the head of the NRA (or, where applicable, the members of the collegiate body) must be appointed for a term of office of at least three years, following an open and transparent selection procedure and may only be dismissed if he/she no longer fulfils the conditions required for the performance of his or her duties which were laid down in national law before their appointment.

⁸⁹⁶ EECC, art.9.

⁸⁹⁷ EECC, art.8(1).

⁸⁹⁸ EECC, art.8(2).

⁸⁹⁹ EECC, art.31.

⁹⁰⁰ EECC, art.31(1) *in fine.*

⁹⁰¹ EECC, art.31(1).

⁹⁰² EECC, arts 23 and 30(1).

⁹⁰³ EECC, art.29.

Mechanisms to promote regulatory consistency across the European Union

As there is no European regulator for electronic communications, several institutions have been established and several mechanisms have been set up to ensure that national regulators apply the EECC in a consistent manner across Europe.

First, the Commission has important powers to contribute to this consistent enforcement. Indeed, where divergences in the implementation by the national authorities create a barrier to the internal market, the Commission may adopt harmonisation recommendations that should be taken into account by the national authorities.⁹⁰⁴ If those harmonisation recommendations do not bring enough regulatory consistency, the Commission may even adopt harmonisation decisions which are binding to the national authorities in some specific cases.⁹⁰⁵

Second, a coordination network has been established between the NRAs: the Body of European Regulators for Electronic Communications. BEREC is composed of two bodies: (i) BEREC – Board of Regulators, which performs this coordination role and does not have a legal personality, and (ii) the Agency for Support for BEREC (BEREC Office) which provides support for the Board of Regulators and is an EU agency with a legal personality. The Board of Regulators is made of one member from each Member State, appointed by the NRA that has primary responsibility for overseeing the day-to-day operation of the electronic communications markets.⁹⁰⁶ To foster regulatory consistency, BEREC adopts detailed guidelines to address technically complex issues such as those relating to the application of symmetric access obligations, the assessment of co-investment proposals or the criteria to be met for a network to be deemed of very high capacity.⁹⁰⁷

Third, technical standards also play an important role in regulating the digital industries. They are key to ensuring network and service interoperability, end-to-end connectivity in the Member States but also across the Member States. This is why the Commission, following the EU standardisation bodies,⁹⁰⁸ may adopt a list of non-compulsory standards or specifications to encourage the harmonised provision of electronic communications networks and services.⁹⁰⁹ If those standards or specifications have not been adequately implemented, the Commission may, after a public consultation, make them compulsory to the extent necessary to ensure such interoperability and to improve freedom of choice for users.⁹¹⁰

k. Open banking

i. Context and problem definition

To stimulate competition and innovation in financial services, the Second Payment Service Directive (PSD2) establishes a framework for new FinTech services to access the payment

⁹⁰⁴ EECC, art.38.

⁹⁰⁵ EECC, art.38(3) for regulatory issues regarding market definition and SMP designation and regarding numbering.

⁹⁰⁶ Regulation 2018/1971 of the European Parliament and of the Council of 11 December 2018 establishing the Body of the European Regulators for Electronic Communications, OJ [2018] L 321/1, art.7.

⁹⁰⁷ BEREC Regulation, art.4. See <https://berec.europa.eu/>.

⁹⁰⁸ The European standardisation organisations are the European Committee for Standardisation (CEN), the European Committee for Electrotechnical Standardisation (Cenelec), and the European Telecommunications Standards Institute (ETSI). The general EU rules on standardisation are Regulation 1025/2012 of the European Parliament and of the Council of 25 October 2012 on European standardisation [2012] OJ L 316/12, as amended.

⁹⁰⁹ EECC, art.39(1) and (2). Commission Decision 2007/176 of 11 December 2006 establishing a list of standards and/or specifications for electronic communications networks, services and associated facilities and services [2007] OJ L86/11, as amended by the Decision 2008/286.

⁹¹⁰ EECC, art.39(3) and (4).

account data for free in a secure way and after having obtained the consent of their customers.⁹¹¹

This sector-specific legislation complements the B2B portability right of the GDPR as it compels the banks (original controllers) to allow direct transmission of the data subjects' personal banking information to third party providers (payment initiation services or account information services). PSD2 goes further than the GDPR because, on the one hand, it forces the banks to ensure the technical feasibility of this B2B financial account data portability and, on the other hand, it makes this portability continuous as data subjects can request personal data at each transaction, facilitated by APIs.

The UK went further than the PSD2 with the Open Banking Programme which led to a common and open API to access to account information of the customers of the nine biggest banks of the country.⁹¹² This obligation was imposed by the UK antitrust and consumer protection authority, the Competition and Market Authority, in the context on its Retail Banking market investigation in order to increase competition and innovation in the sector.⁹¹³

ii. Ex ante remedies

In practice, the CMA forced those nine largest banks and building societies⁹¹⁴: to fund and cooperate with an independent new body, Open Banking Implementation Entity (OBIE). The OBIE developed, within a fixed (and short) timeframe, read-only open and common technical and product data standards and read-and-write open and common banking standards for the sharing of transaction data. Those standards ensure that any communication is secure and based on the consent of the customers. Their establishment has been coordinated with the EU standards developed by the EBA and made compulsory by the European Commission.

iii. Institutional set-up

The main role of the OBIE is to (i) design the specifications for the Application Programme Interfaces (APIs) that banks and building societies use to securely provide Open Banking, (ii) support regulated third party providers and banks and building societies to use the Open Banking standards, (iii) create security and messaging standards, (iv) manage the Open Banking Directory which allows regulated participants like banks, building societies and third party providers to enrol in Open Banking, (v) produce guidelines for participants in the Open Banking ecosystem and (vi) set out the process for managing disputes and complaints.

iv. Impact assessment at national level / effects on fairness choice and innovation

The programme starts to show some success. At the end of 2019, it was used by 70 account providers (data giver) and 134 third party providers of payment initiations or account information services (data seekers) and 77% of SMEs and large corporations were already or were planning on using the Open Banking API.⁹¹⁵

As underlined in the Furman Report (2019, p.70), 'one positive example from Open Banking is the effectiveness of requiring at least a subset of firms to implement and deliver the solution. Without such powers, progress is likely to be slow, disjointed and in some cases

⁹¹¹ Directive 2015/2366 of the European Parliament and of the Council of 25 November 2015 on payment services in the internal market, amending Directives 2002/65, 2009/110 and 2013/36 and Regulation 1093/2010, and repealing Directive 2007/64, OJ [2015] L 337/35.

⁹¹² See <https://www.openbanking.org.uk/>

⁹¹³ See CMA Final Report of 9 August 2016 on the Retail Banking Investigation and CMA, pp. 441-460 and CMA Order of 2 February 2017 on the Retail Banking Investigation, Sect. 10 to 14 and the Associated Explanatory Note, paras.28-39. All documents are available at: <https://www.gov.uk/cma-cases/review-of-banking-for-small-and-medium-sized-businesses-smes-in-the-uk>

⁹¹⁴ Allied Irish Bank, Bank of Ireland, Barclays, Danske, HSBC, Lloyds Banking Group, Nationwide, RBS Group and Santander.

⁹¹⁵ <https://www.openbanking.org.uk/open-banking-2019-review/>

non-existent. The issue is not just the complexity of agreeing on unified standards but, potentially importantly, misaligned incentives between the largest platforms and consumers. Another lesson is that just requiring common standards is not sufficient and that an active effort is needed to make this work in practice.

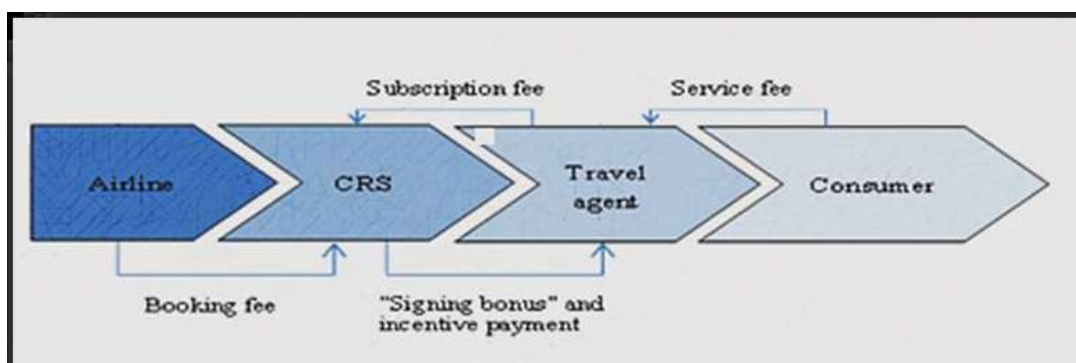
I. Computerised Reservation Systems Code of Conduct

i. Context and problem definition

Computerised Reservation System (CRS) act as a technical intermediary on a two-sided market connecting airlines and travel agencies. Examples are Amadeus, Sabre or Travelport. Airlines provide CRSs information on their booking inventory and the content (e.g. fares, schedules and availability), while the CRSs supply in return booking capabilities and a distribution channel to the travel agents. CRSs provide travel agents reservation, booking and ticketing services by means of a comprehensive tool which allows comparison of prices and conditions from hundreds of airlines. CRSs provide their customers with immediate information about the availability of air and rail transport services, the fares and schedules for such services. They permit travel agents to make immediate confirmed reservations on behalf of the consumers.

As illustrated in Figure 190 below, when a travel agent books a ticket using a CRS, the airline pays a booking fee to the CRS. The travel agent usually charges a service fee to the consumer for the booking of the ticket. Travel agents pay a subscription fee to the CRS. CRS providers usually offer incentive payments to travel agents for the booking of a ticket (which might go beyond the subscription fee paid by the travel agent).

Figure 190. The CRS value chain



Source: Commission Evaluation SWD(2020)9, p.6

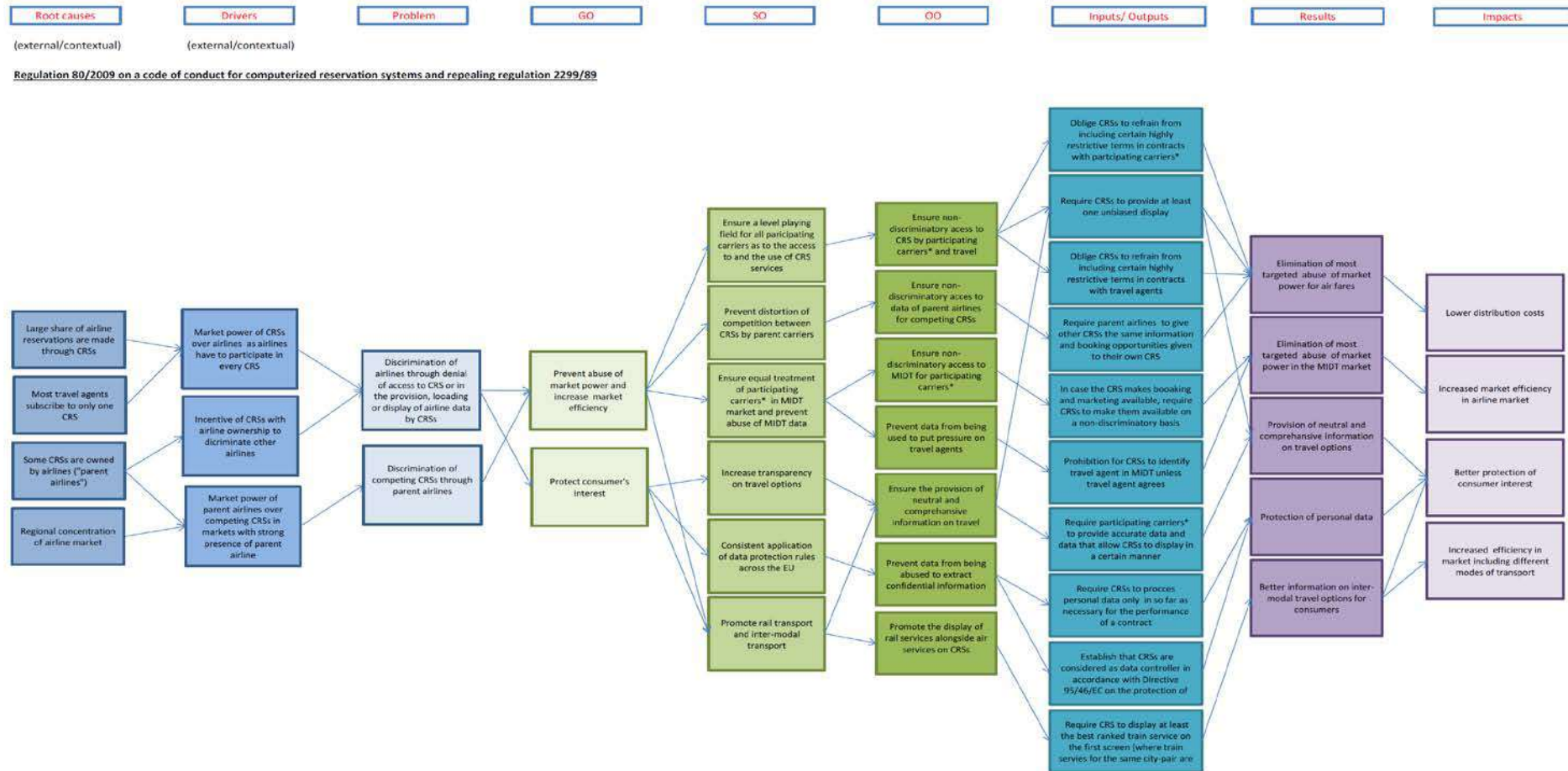
The first Code of Conduct was established in 1989⁹¹⁶ when the bulk of airline reservations were made through CRSs and the major CRSs were owned by major airline companies (parent carrier) and the current one has been adopted in 2009.⁹¹⁷ This led to the following market failures:

- Market power of CRSs over airlines as airlines had to participate in every CRS;
- Incentive of CRSs with airline ownership to discriminate other airlines;
- Market power of parent airlines over competing CRSs in markets with strong presence of parent airline.
- The intervention logic of the Code of conduct is explained in Figure 191 below.

⁹¹⁶ Regulation 2299/89.

⁹¹⁷ Regulation 80/2009 of the European Parliament and of the Council of 14 January 2009 on a Code of Conduct for computerised reservation systems and repealing Council Regulation 2299/89, OJ [2009] L35/49.

Figure 191. Intervention logic (source: Commission roadmap of 5 October 2017)⁹¹⁸



⁹¹⁸ https://ec.europa.eu/info/law/better-regulation/initiatives/ares-2017-4870475_en

ii. Objective of regulatory intervention

As explained in the intervention logic, the two general objectives of the Code of conduct are: (i) to prevent abuse of market power by airlines companies and CRS and increase market efficiency and (ii) protect consumer's interest.⁹¹⁹

The six specific objectives of the Code of conduct are the following:

- Ensure a level playing field for all participating carriers as to the access to and the use of CRS services ;
- Prevent possible distortions of competition between CRS by airlines controlling CRSs (parent carriers);
- Ensure equal treatment of airlines and railway operators in the Marketing Information Data Tapes (MIDT) market and prevent abuse of MIDT data;
- Increase transparency on travel options;
- Ensure consistent application of data protection rules;
- Promote rail transport and inter-modal transport.

iii. Threshold for intervention

The Code of conduct apply symmetrically to all CRS which contains air-transport products offered for use or used in the EU⁹²⁰ as well as their parent carrier.⁹²¹ Thus, there is no requirement of market power for the Code of conduct to apply. However, the Code of conduct does not apply to other distribution means such as airlines websites or meta-search engines (such as Skyscanner ...), which are particularly used to find and book leisure travel.

iv. Ex ante remedies

To ensure the equal treatment for all participating carriers by CRSs, the CRSs are:

- prohibited to include contractual terms which are unfair or unjustified, or have no connection with the participation in a CRS, or the use of alternative CRSs;⁹²²
- obliged to load and process data provided by participating carriers with equal care and timeliness;⁹²³
- obliged to publicly disclose, the existence and extent of a direct or indirect capital holding of an air carrier or rail-transport operator;⁹²⁴

⁹¹⁹ Regulation, rec.1.

⁹²⁰ Regulation, art.1. CRS is defined as 'a computerized system containing information about, *inter alia*, schedules, availability and fares, of more than one air carrier, with or without facilities to make reservations or issue tickets, to the extent that some or all of these services are made available to subscribers: Regulation: Regulation, art.2(4). The Code of conduct also applies to rail-transport products, which are incorporated alongside air-transport products into the principal display of a CRS when offered for use or used in the EU.

⁹²¹ Parent carrier is defined a 'any air carrier or rail-transport operator which directly or indirectly, alone or jointly with others, controls, or participates in the capital with rights or representation on the board of directors, supervisory board or any other governing body of, a system vendor, as well as any air carrier or rail-transport operator which it controls': Regulation, art.2(7).

⁹²² Regulation, art.3(1).

⁹²³ Regulation, art.3(2).

⁹²⁴ Regulation, art.3(3).

- prohibited to reserve any specific loading and/or processing procedure, any other distribution facility, or any changes to these, for one or more participating carriers, including its parent carrier(s);⁹²⁵
- ensure that its distribution facilities are separated, at least by means of software and in a clear and verifiable manner, from any carrier's private inventory and management and marketing facilities;⁹²⁶
- obliged to provide at least one unbiased and non-discriminatory display treating all participating carriers equally.⁹²⁷

To prevent abuse of market power by parent carriers, which directly or indirectly control a CRS, these airlines are obliged to provide the same information on schedules, fares and availability to systems other than their own, and to accept bookings made by those systems.⁹²⁸

To ensure equal treatment of participating carriers in the Marketing Information Data Tapes market, the CRSs that make booking and marketing data available are obliged to make them available on a non-discriminatory basis; moreover, to avoid that a participating carrier use the MIDT to put pressure on certain travel agents, the CRSs are prohibited to identify travel agents unless the travel agent and the CRS agree on the conditions for the use of such data.⁹²⁹

To increase transparency on travel options, CRSs are obliged to provide at least one neutral and non-discriminatory display and participating carriers are required to provide accurate data and data that allow CRSs to display in a certain manner.⁹³⁰

To protect personal data, CRSs are obliged to process personal data only in so far as necessary for the performance of a contract and the Code of Conduct contains provisions on the protection of personal data which particularise and complement the general data protection rules.⁹³¹

To promote rail as an alternative for travellers, the CRSs are obliged to display at least the best ranked train service on the first screen where train services for the same city-pair were available.

v. Institutional set-up

The main enforcer of the Code of conduct is the European Commission.

Every four years, the CRS should submit to the Commission an independently audited report detailing the ownership structure and governance model.⁹³²

The Commission can launch investigation and take infringement decision following procedures which are very similar to the one followed in a competition law case. The Commission may act upon complaint or ex officio and sent to the undertakings concerned a statement of objections. If the Commission finds a violation of the Code of conduct, it adopts a decision requiring the undertaking to bring such violation to an end and it may impose a fine not exceeding 10% of the annual turnover.⁹³³

⁹²⁵ Regulation, art.4(1)

⁹²⁶ Regulation, art.4(2).

⁹²⁷ Regulation, art.5.

⁹²⁸ Regulation, art.10

⁹²⁹ Regulation, art.7.

⁹³⁰ Regulation, art.4 and art.9.

⁹³¹ Regulation, art.11.

⁹³² Regulation, art.12.

⁹³³ Regulation, arts.13-16.

vi. Impact assessment at national level / effects on fairness choice and innovation

In its evaluation of January 2020, the Commission services concluded that:⁹³⁴

The objective of achieving a level playing field for all participating carriers for access to, and the use of CRS services, has not been fully achieved since the Code of conduct did not lead to better balancing of the bargaining power of different-sized air carriers vis-à-vis CRSs.

The objective of preventing distortion of competition between CRSs by parent carriers has been achieved since no air carrier has a controlling share in any CRS; however, it is not clear whether the carrier divestment from CRSs is due to market development or whether the Code of Conduct also plays a role.

The objective of ensuring non-discrimination with the use of MIDT data has not been fully achieved as some travel agents are still subject to pressure from air carriers on the basis of marketing data and this may be due to a weak enforcement of the Code of Conduct.

On the objective of transparency and display neutrality, some stakeholders raise concerns about the increasing trend among air carriers of unbundling their services from the final price (i.e. offering services such as luggage, meals or seat selection separately).

The objective of ensuring personal data protection has been met.

The objective of promoting rail transport has been partially achieved as travel agents have access to rail options in their systems and CRS providers work with a number of train companies and provide rail options in primary displays where relevant.

⁹³⁴ Commission Staff Working Document of 23 January 2020, Evaluation of the Regulation 80/2009 of the European Parliament and of the Council of 14 January 2009 on a Code of Conduct for computerised reservation systems, SWD(2020) 9.

Annex 6. Expert panel minutes

a. First Expert Panel

Platforms with Significant Network Effects Acting as Gatekeeper impact assessment Support Study

28 July 2020

On 28 July 2020, ICF, WIK-Consult GmbH, Cullen International, and CEPS organised a high-level academic expert panel under the chairmanship of Prof Alexandre de Streel to support the Commission in the preparation of the Impact Assessment of platforms with significant network effects acting as gatekeeper.

The purpose of the expert panel was to provide feedback on the scope, methodology and literature on the topic of “Platforms with Significant Network Effects Acting as Gatekeeper. Prior to the meeting, the experts were provided with an issue note for discussion.

The members of the academic panel were selected by virtue of their in-depth experience in issues relevant to digital platforms and markets.

Martin Kenney Martin Kenney is a Professor in Community and Regional Development at the University of California, Davis; a Senior Project Director at the Berkeley Roundtable on the International Economy; and Senior Fellow at the Research Institute for the Finnish Economy. He has been a visiting scholar at the Copenhagen Business School, Cambridge, Hitotsubashi, Kobe, Stanford, and Tokyo Universities. Kenney’s scholarly interests are in the dynamics of entrepreneurial high-technology regions, university-industry technology transfer, the development of the venture capital industry, and the impacts of new technologies on industrial structures and labor relations. He co-authored or edited seven books and 150 scholarly articles on industrial clusters, entrepreneurship, venture capital, innovation, university-industry relations, and value chain upgrading. His first book *Biotechnology: The University-Industrial Complex* was published by Yale University Press. His most recent edited books *Public Universities and Regional Growth*, *Understanding Silicon Valley*, and *Locating Global Advantage* were published by Stanford University Press where he edits the book series *Innovation and Technological Change in the Global Economy*. His co-edited book *Building Innovation Capacity in China* was published by Cambridge University Press in 2016. Kenney is a receiving editor at the world’s premier innovation research journal, *Research Policy*. In 2015, he was awarded University of California Office of the President’s Award for Outstanding Faculty Leadership in Presidential Initiatives. America.

William E. Kovacic is the Global Competition Professor of Law and Policy at the George Washington University Law School and Director of its Competition Law Center. He is also a Visiting Professor at the Dickson Poon School of Law at King’s College London. Since August 2013, he has been a non-executive director with the United Kingdom Competition & Markets Authority. With Ariel Ezrachi, he edits the *Journal of Antitrust Enforcement*. From January 2006 to October 2011, he was a member of the United States Federal Trade Commission and chaired the agency from March 2008 until March 2009. He was the FTC’s General Counsel from 2001 through 2004. Since 1992, he has advised over 50 countries on economic regulatory policy. His research has focused on the economics and law of economic regulation, including competition law, consumer protection, data protection, and public procurement. His scholarly work examines both the substance of regulatory policy and the design of institutions entrusted with policy implementation. His recent work has addressed the choice of measures to assess the effectiveness of regulatory regimes; the determinants of successful policy implementation in competition law regimes; the evolution of competition law systems across the globe; the role of competition policy, anti-corruption policy, and international trade in combatting collusion

and corruption in public procurement; the role of government and non-government institutions in the development of global regulatory norms; and the adaptation of competition, consumer protection, and data protection law to address challenges of the digital economy. More broadly, his research seeks to advance the theoretical understanding of the links between the theory of economic regulation and its successful realization in practice.

Jan Krämer is a Full Professor at the University of Passau, Germany, where he holds the chair of Internet & Telecommunications Business. He is also a Joint Academic Director at the Centre on Regulation in Europe (CERRE), a Brussels-based think tank. Previously, he headed a research group on telecommunications markets at the Karlsruhe Institute of Technology (KIT), where he also obtained a diploma degree in Business and Economics Engineering with a focus on computer science, telematics and operations research, and a Ph.D. in Economics, both with distinction. He is editor and author of several interdisciplinary books on the regulation of telecommunications and digital markets and has published numerous articles in the premier scholarly journals in Information Systems, Economics, Management and Marketing research. Professor Krämer has served as academic consultant for leading firms in the telecommunications and Internet industry, as well as for governmental institutions, such as the German Federal Ministry for Economic Affairs. His current research interests include the regulation of telecommunications and Internet markets, as well as digital ecosystems and data-driven business models.

Pierre Larouche is Professor of Law and Innovation at Université de Montréal, where he is in charge of the new PhD programme on Innovation, Science, Technology and Law. Until 2017, he was Professor of Competition Law at Tilburg University (Netherlands), where he founded and directed the Tilburg Law and Economics Center (TILEC) and created the Bachelor Global Law. Prof. Larouche has also taught at the College of Europe (Bruges) (2004-2016), and he has been a guest professor or scholar at McGill University (2002), National University of Singapore (2004, 2006, 2008, 2011, 2013), Northwestern University (2009-2010, 2016-2017), Sciences Po (2012), the University of Pennsylvania (2015) and the Inter-Disciplinary Center (IDC, 2016). His research centers around economic governance, and in particular how law and regulation struggle to deal with complex phenomena such as innovation. He follows a meta-comparative and interdisciplinary method. He currently teaches competition law, economic regulation, tort law as well as patents and trademarks.

Giorgio Monti has been teaching and researching in the field of competition law since 1993. As Scientific Director of the Florence Competition Program since 2011 he contributed to developing courses on judicial and executive training. He has published papers across a range of topics in EU competition law and regulation, frequently with an interdisciplinary approach; he is co-author of one of the major texts on European Union Law now in its fourth edition and is joint editor of the *Common Market Law Review*. With respect to digital markets he has co-authored two studies for the EP's Internal Market Committee, one of which contributed to the drafting of the Geo-Blocking Regulation.

Marshall Van Alstyne is the Questrom Chair Professor of Management at Boston University, with expertise in platforms and information economics. His work explores how ICT affects firms, products, innovation, and society. Work or commentary have appeared in journals such as *Science*, *Nature*, *Management Science*, *American Journal of Sociology*, *Strategic Management Journal*, *Information Systems Research*, *MISQ*, *The Economist*, *New York Times*, and *Wall Street Journal*. He has made significant contributions to platform economics and strategy as a co-developer of the theory of "two-sided" markets. He is co-author of the international bestseller *Platform Revolution* and a top 50 all-time article for *Harvard Business Review*. Research has received more than 15,000 citations, two patents, NSF Career, SBIR, iCorp, and IOS awards, and half a

dozen best paper awards. He received a BA in computer science from Yale, and an MS and Ph.D. in information systems economics from MIT.

i. Objectives of Intervention and Problem Definition

<i>Is market failure the right concept?</i>	<p>The Commission welcomed all participants and stressed that clarity and quality of the problem definition is crucial for this study. It is still unclear whether the concept of market failure is suitable to capture the specificities of digital platform markets. However, the importance of the task ahead demands a precise problem definition, rigor in execution of the study and clarity in the communication of the insights.</p>
<i>Innovation and contestability but also value creation and distribution are essential element of the problem definition.</i>	<p>The experts agreed that the main objectives of regulatory intervention should be to ensure innovation and contestability, define and address unfair practices, prevent fragmentation that leads to inefficiency and strengthen the single market for digital services as well as to safeguard long-term consumer and societal interests. Experts also noted that value creation and value distribution should be a key objective of regulatory interventions and an essential element of the problem definition. Value creation and distribution are interdependent. Balanced and fair distribution of value along the entire value chain will incentivise the creation of value.</p> <p>The experts discussed how a fair distribution of value could be achieved. In this context one of the experts referred to the Shapley value. Value should be divided such that each market player's share is proportional to its contribution to the value creation. In principle, if people are treated fairly, they are more willing to share data and information, which ultimately promotes innovation and thus value creation. In other words, if all players receive the marginal rate of their contribution, the players will choose the socially optimal level of investment in innovation. However, the governance models currently in place in the context of large digital platforms may result in a biased distribution of value</p>
<i>Main harmful practices</i>	<p>One expert notes that the main harmful practices by large digital gatekeepers are the following: reduction of market contestability, in particular against start-up wanting to offer complementary products (that may then become substitute); unfair discrimination and self-preferencing; exclusive contracts raising rival costs in getting access to inputs; external acquisition instead of internal growth and limitation of the mobility of human capital.</p>
<i>Discrimination affects innovation.</i>	<p>An expert noted that a key feature of discrimination is that platform owners may impose conditions that are designed to limit their competitors from benefiting from their innovation. For example, a platform could use information from transactions by third parties to formulate a business plan to compete against those third parties, or make use of exclusive contracts or limit availability of essential inputs. The kind of discrimination on access, terms and conditions could in some ways be seen as similar to the practices addressed via network regulation. Platforms might also use other means to gain advantage such as non-compete and "most favoured nation" clauses, and there were questions over the extent to which large</p>

platforms should be able to engage in acquisitions as a means of expansion as opposed to organic expansion.

Machine learning exacerbates the problem. One expert noted that machine learning exacerbates the ability of platforms to act as gatekeepers. For example, Amazon and Netflix were using recommendation engines to design new movies, which was increasing their returns. Or, a more contemporary example, is TikTok's use of AI to recommend videos. The new products can be positive for consumers, but created the problem that it increases the existing platform's position versus competitors.

Platforms' access to data gives them more power than traditional media. One expert noted that platforms' access to user data gave them an advantage that was not available to traditional media. The expert noted that the postal business was collapsing because the majority of revenues came from bulk mail, but that this type of blanket untargeted communications (which is also true of broadcast advertising) was less efficient than the targeted advertising that could be delivered via collection of user data online. It was necessary to consider how to create competition to allow others to do that. The mechanism that had kept post in a "third party" neutral role is not the case with the new gatekeepers, because they are parties to the interactions and transactions taking place.

Element of duplicity: market for lemons. One expert noted that there could be an element of duplicity in how large platforms presented themselves e.g. as a "neutral" search engine, or "open source" platform. The discovery of malpractice and opaque adherence to privacy policies can negatively shape the perception of consumers to platforms overall, leading to a "market for lemons".

ii. Thresholds for intervention

Tipping points might help identify intervention threshold. One expert noted that it was important to examine at which point platforms became gatekeepers or, as important, how they extend their gatekeeping functions. For example, with Facebook, was it only after acquiring Instagram or was the acquisition an extension of that function? It was noted that conduct could be an important indicator of the point at which a platform might tip into a gatekeeper position. However, this might be complex and create implementation challenges in ex ante regulatory approaches, and it was observed that regulators typically use structural characteristics as a proxy to identify the potential to exploit market power. Structural characteristics were often demanded by both counsel and stakeholders as a means to provide certainty and predictability. The experts raised the point that regulatory interventions at a single point in time might not be suitable in the context of digital markets.

The more digital platforms expand, the more control should be imposed. In contrast to applying structural criteria at a later stage in the platform life-cycle, a constant monitoring approach might be more suitable to identify the tipping of digital markets in favour of specific players in a timely manner.

Principles vs operationalization

Experts discussed what could be the appropriate balance between clarity in the law and flexibility. One solution discussed was to provide principles in the law that could be operationalised by the regulatory body, which could establish a “rebuttable presumption” regarding conditions when it was likely to find gatekeeper power, as a means to provide guidance. It was noted in this context that the SSNIP test may be applied using variable levels of price increase, depending on the situation.

Identifying relevant criteria.

Two relevant criteria for digital platform regulation emerged during the discussion: 1) Network effects are at the core of the business models and 2) openness of the business models. In contrast to ex-ante standardized telecommunications systems, digital platforms are de-facto standards. Therefore, these characteristics of platforms lead to a ‘competition for the market’. The discussion further developed around the openness of a platform’s governance structure.

Platforms should not be choosing their own governance models.

One of the experts referred to the analogy of ‘worker representation’ in private sector firm boards to exemplify the idea of more general ‘stakeholder councils’ in the context of digital platforms. Some experts strongly argue in favour of all parties having a voice in the structure that controls them. Moreover, some experts argued that the implemented governance model should not be determined by the platform providers themselves. Past and current self-regulation efforts of platform providers have largely been tailored to minimize negative business impacts and prevent further regulatory interventions in the future.

Platforms employ asymmetric forms of data exchange.

Digital platforms create business models around asymmetric forms of data exchange. One expert argued that consumers receive ‘some data’ in return for ‘all of their data’. Asymmetric data sharing between consumers and platforms can therefore be considered an unfair exchange between the two parties.

There are different ways of defining and applying thresholds.

A very simple screening device could be the “number of active users” followed by a case-by-case market analysis. Moreover, questionnaire or qualitative data could be leveraged to capture the dependency of business users on specific platforms. Another expert argued that market tipping can happen on either side of a specific quantitative threshold, therefore indicators should be used as proxies and serve more flexible principles in the overall regulatory strategy. Another expert added to this argument, by referring to an example of a regulatory intervention against Amazon in India. Amazon simply reduced the scope of its harmful practice to match the predefined threshold.

<i>Increasing or decreasing returns of data processing.</i>	<p>One expert focused on the dominance of digital platforms in data processing capabilities. This can lead to increasing returns from data processing. Netflix and Amazon already use their (originally consumer oriented) recommendation systems to create new products or even forms of entertainment. If we face increasing returns on data, it becomes even more difficult for smaller competitors to catch up with their larger rivals. One important indicator of dominance could focus on the question of whether we are on an “increasing returns or decreasing returns trajectory”.</p> <p>One expert underlines the importance of the durability of the market power to justify regulation while noting the trade-off with the need to intervene before the entrenchment of the market power.</p>
<i>Platforms as public utilities?</i>	<p>Some experts discussed whether platforms are markets in themselves and therefore comparable to a ‘public utility’, but with the dynamism of a start-up.</p>
<i>“Conglomerates” are a multiplier on other harmful factors.</i>	<p>In the discussion about conglomerate effects of large digital platforms, the experts argued that conglomerates are rather a multiplier of other factors than a harm per-se. Therefore, the focus should be primarily on those underlying factors and not on conglomerate. One expert stated that the problem is that these are conglomerates of unrelated activities financially controlled by a headquarters. In contrast, these firms use data, software and algorithms at scale, tie versus products together, drive traffic from one service to another one. Thus, there are technical and economic benefits that make this far more difficult than just separating various unrelated units. The same expert explains that the word “conglomerate” is inaccurate and not useful here – unless one recognizes what ties these expansions together. For example, Amazon integrating logistics is not a conglomerate play, but has real economic benefits.</p>
	<h3>iii. Remedies to harmful practices</h3>
<i>The elimination of harmful practices is a trade-off.</i>	<p>The experts agree upon the fact that digital platforms are often more efficient than smaller competitors. One expert mentioned the logistics and supply chain of Amazon as an example for the efficiency of large platforms. Therefore, regulatory interventions can result in lower efficiency. However, another expert raised the point that despite the fact that platforms internalise positive network externalities, they only do so up to the privately optimal level. It was suggested that regulatory remedies could be formulated as trade-offs. Through this approach regulators would also maintain a larger scope of action to accommodate for the case-by-case nature of the various forms of harm without creating an (in every case) contestable regulation.</p>
<i>Maintaining innovation.</i>	<p>According to one expert, digital platforms tend to buy out future competition often at very high prices that are very attractive to the owners of these firms, to maintain their positions. Smaller players need to be heard in the process. They need to have a voice to identify the harms that hamper innovation by restricting access to</p>

markets dominated by, or markets that have been created by large platforms.

Trade-off between mechanical approach and case by case.

A blacklist approach could have the advantage of simplicity. However, it was queried whether we know enough about the problematic practices to establish prohibitions, as it was important not to bar a platform owner from stepping into new services if they could provide it better. Moreover, it was important not to preclude the creation of value due to lower costs and greater innovation e.g. platforms entering healthcare (concern in the U.S). Another expert noted that the approach to the threshold and remedies should match – i.e. a blacklist could be appropriate if there was a clear and common threshold, but if there was a need for a specific decision on the threshold, then case by case remedies would be more appropriate. A menu of choices could be an attractive option as that provides flexibility. However, it was also noted that flexibility could also be associated with complexity and delays.

Defining a code of conduct.

The experts discussed the relationship between a black-list of harmful behaviour and a code-of-conduct for digital platform providers. A code-of-conduct should be a binding mandate with a dispute resolution process (e.g. outside party / regulator itself). Such a code could emerge by formulating general principles that are handed over to an institute that transforms these into practical rules that form the code of conduct for digital platforms.

Relevant examples of regulation.

When it comes to regulatory approaches, experts cited interesting models concerning regulation of the interaction between major supermarkets and their suppliers e.g. as practiced in the UK, Spain and South Korea. Benefits of these models included the possibility of collecting confidential complaints which would address challenges around retaliation. However, it was noted that approaches to regulation in the grocery supply chain were experimental. Another example given was the financial services sector, which had experimented with automatic data exchange remedies.

Types of remedies

Experts discuss the different types of remedies, in particular (i) on conducts such as self-preferencing and leverage; (ii) on access to assets such as data or systems and (iii) on platform governance and decision making.

Data sharing is important, but may not be the appropriate solution for fair value distribution in all cases.

The experts noted that the sharing of and access to data and information might be key in the context of value distribution, and thus for value creation. However, they also mentioned some limitations to this approach. For instance, a vast amount of data that is captured is considered personal data that cannot be freely shared. Furthermore, data can be a by-product of the business of digital platforms, but also the core business asset. Sharing data essential to a business model can have a negative impact on value creation. In these cases, the exclusive right to use the data is essential for the viability of the respective platform's business. In

contrast, access to non-critical data could enable innovation in other market segments

Creating a fair process.

Regarding governance and “decision rights”, a key problem with current self-regulatory measures e.g. around information on COVID or politics was that platforms were “stacking the jury”. In cases where there is a conflict of interest, regulation should therefore give voting rights to those which are not the platform governor e.g. to stakeholders and consumers.

In that context the experts describe platforms as ‘inverted firms’, that orchestrate the value creation of many parties while, at the same time, keeping a very small footprint in terms of employees and operational expenditures. Therefore, decision rights of stakeholders could be incorporated in regulatory remedies as well, to create a fair process of value creation instead of focusing merely on value redistribution.

According to one expert, digital platforms may in some circumstances buy out future competition to maintain their positions. Smaller players need to be heard in the process. They need to have a voice to identify the harms that hamper innovation by restricting access to markets dominated by, or markets that have been created by large platforms.

Data reporting obligations.

Data sharing and reporting obligations by larger players could reduce the information asymmetry between regulators and digital platform providers.

EU-level intervention.

It was agreed that it was important to have an EU-wide regulatory mechanism, especially since the authority may in a sense be setting global standards. Unlike electronic communications where the designation is harmonised and the remedies are fragmented to reflect local conditions, there was a need to the same EU-level authority to apply the threshold test and remedies. However, there was a trade-off to be considered concerning the cost and operation of an independent body.

Need of continuous research and mapping of firms.

One expert also indicated that there might be the need for continuous research and mapping of these firms expansion paths, so that there is a ready group of informed experts that can be called upon to give independent advice. These could be government-funded university institutes that would be forbidden from taking corporate funding. The necessity for unbiased advice seems critical. For example, very little is known about the expansion paths for firms such as Amazon, Google etc.

b. Second Expert Panel

Platforms with Significant Network Effects Acting as Gatekeeper impact assessment Support Study

10 September 2020

On 10 September 2020, ICF, WIK-Consult GmbH, Cullen International, and CEPS organised a high-level academic expert panel to support the Commission in the preparation of the Impact Assessment of platforms with significant network effects acting as gatekeeper.

The purpose of the expert panel was to provide feedback on the scope, methodology and literature on the topic of “Platforms with Significant Network Effects Acting as Gatekeeper. Prior to the meeting, the experts were provided with a programme for discussion.

The members of the academic panel were selected in consultation with the Commission by virtue of their in-depth experience in issues relevant to the governance of digital platforms and markets.

Martin Kenny Martin Kenney is a Professor in Community and Regional Development at the University of California, Davis; a Senior Project Director at the Berkeley Roundtable on the International Economy; and Senior Fellow at the Research Institute for the Finnish Economy. He has been a visiting scholar at the Copenhagen Business School, Cambridge, Hitotsubashi, Kobe, Stanford, and Tokyo Universities. Kenney’s scholarly interests are in the dynamics of entrepreneurial high-technology regions, university-industry technology transfer, the development of the venture capital industry, and the impacts of new technologies on industrial structures and labor relations. He co-authored or edited seven books and 150 scholarly articles on industrial clusters, entrepreneurship, venture capital, innovation, university-industry relations, and value chain upgrading. His first book *Biotechnology: The University-Industrial Complex* was published by Yale University Press. His most recent edited books *Public Universities and Regional Growth*, *Understanding Silicon Valley*, and *Locating Global Advantage* were published by Stanford University Press where he edits the book series *Innovation and Technological Change in the Global Economy*. His co-edited book *Building Innovation Capacity in China* was published by Cambridge University Press in 2016. Kenney is a receiving editor at the world’s premier innovation research journal, *Research Policy*. In 2015, he was awarded University of California Office of the President’s Award for Outstanding Faculty Leadership in Presidential Initiatives. America.

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in journals such as *Science*, *Nature*, *Management Science*, *American Journal of Sociology*, *Strategic Management Journal*, *Information Systems Research*, *MISQ*, *The Economist*, *New York Times*, and *Wall Street Journal*. He has made significant contributions to platform economics and strategy as a co-developer of the theory of “two-sided” markets. He is co-author of the international bestseller *Platform Revolution* and a top 50 all-time article for *Harvard Business Review*. Research has received more than 15,000 citations, two patents, NSF Career, SBIR, iCorp, and IOS awards, and half a dozen best paper awards. He received a BA in computer science from Yale, and an MS and Ph.D. in information systems economics from MIT.

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i. Problems, objectives and options for the ex-ante regulatory framework

Is ex-ante regulation the correct approach and what is the appropriate scope of the measure?

The study authors welcomed all participants on behalf of the study team. The study team envisions the definition of “online platforms” in a wide sense but with a rather narrow targeting of potential remedies. This, however, seems difficult to incorporate within the existing horizontal framework of the P2B Regulation and is one of the factors justifying a separate measure focused on ex-ante regulation of large gatekeeper platforms. Experts provided their inputs on the scope of the measure.

An ex-ante framework mitigates costs of one-size-fits-all approach

The experts generally agreed that specific legislation which pursued an ex-ante approach to regulating large gatekeepers was preferred to the other options under consideration. Such a solution should ensure tailored solutions and avoid costs associated with a one-size-fits-all measure. Experts considered that the implementation of soft-law options such as codes of conduct or confidential complaints procedures could also be evaluated as a supplement to an ex-ante rule set.

A wide scope of the framework’s application takes the dynamics of digital markets into account.

The experts agreed on the benefits of adopting a broad scope for the legislation. One member of the expert panel noted that this would ensure that the measure was sufficiently flexible and adaptable to deal with future developments in platform markets. Another expert noted that because it is impossible to predict how technology and business models will evolve in the platform environment, a future proof framework must be technologically neutral in its application.

Strict but narrowly defined threshold for the remedy.

While the scope is best formulated in a broad sense, experts agreed that the threshold for regulatory intervention should be defined narrowly. One expert noted that, if the framework follows this spirit, firms would focus not on arguing against their inclusion within the scope of the framework but rather to be excluded from potential remedies. A narrowly defined threshold thus reduces the burden of proof and its associated costs to only a few firms that are suspected of being gatekeepers.

The trigger for transparency obligations could be lower than that for prohibitions. Transparency should be towards regulatory authorities.

Experts agreed that transparency obligations would likely be insufficient to address the problems on their own, but should be introduced in a new ex-ante regulation. One member of the panel suggested that the obligation to disclose data could be triggered at a lower threshold than remedies such as prohibitions which might be applied to gatekeepers. A hierarchical remedy structure of this kind could prove more effective in preventing the emergence of platforms which take on a gatekeeper role. Experts agreed that transparency obligations should be fulfilled towards the regulatory authority rather than towards end-users.

The data gathering powers of the authority should match the scope of the legislation.

One of the experts highlighted that the data gathering powers of the authority should be as broad as the scope of the legislation, as it was not known which data would be instrumental in identifying a gatekeeper, and the type of data to be collected might change with future business models. However, there were different views around whether a transparency obligation (e.g. regular reporting requirement) should be extended to market players beyond the gatekeeper platforms themselves.

ii. Threshold: One or two-step approach and quantitative criteria

Is a one-step process appropriate and which criteria should be considered?

The study authors presented their preliminary findings on the threshold for identifying a gatekeeper platform. They noted that there was a trade-off between pursuing a one-step vs a two-step approach to identify gatekeepers. A one-step assignment based on quantitative indicators similar to those in the banking sector or merger control is essentially self-executing, while a two-step process with an initial market-definition stage is more flexible. However, the steps involved in a market-definition-based proceeding provide more potential for uncertainty, legal challenge and thus may result in a more drawn-out process. The study team proposed a compromise between the two approaches based on a one-step process, which would be based on a mix of quantitative and qualitative criteria. These criteria could include for example: Size of the firm/platform, gatekeeper position leading to dependency, enduring position/lack of contestability and conglomerate presence/ecosystem. The study team invited the experts' opinion on both the proposition to pursue a one-step process and the considered criteria.

<i>Market definition has proven difficult in platform cases. A one-step approach may be justified.</i>	One member of the expert panel noted that in the recent prominent antitrust cases the market definition had proven not to be reliable and had been a major issue in legal challenges. The flexibility it should provide in the assessment of a dominant position was rather an additional burden of proof that thwarted the ability of competition authorities to address the problem. Moreover, it was noted that, especially in the context of digital platforms, the identification of a relevant market would become increasingly difficult due to the multi-sidedness and the conglomerate structure of business models, which in the context of the data economy also implies synergy effects due to a common data platform and the ability to feed or guide traffic to different parts of the organization. The preference for a one-step approach to designating gatekeeper platforms (i.e. not involving a prior market definition process) was therefore seen as reasonable by the experts.
<i>Negative criteria enable a safe harbor zone.</i>	Some experts suggested that, in addition to gatekeeper criteria, it may be useful to consider a negative threshold that acts as “safe harbour” thereby excluding certain players from the scope of the gatekeeper threshold. Experts noted that this approach would have the advantage of giving platforms an incentive to prove that they meet the safe harbour condition, and would relieve the European authority conducting the gatekeeper designation of the need to consider a wide range of actors. The indicators which could serve as a safe harbour should be carefully chosen. Possible safe harbour indicators could include size, the platform’s degree of openness, whether it runs on a standardized platform technology or the degree of vertical integration.
<i>Vertical integration should not be a negative criterion due to potential interactions of platforms in non-related markets.</i>	However, one of the experts remarked that the degree of vertical integration is not a suitable indicator for a safe harbour threshold. Even if a platform is not vertically integrated, incentives to engage in discriminatory actions against rivals might still exist. Moreover, where platforms engage in multiple markets there could be a threat of discrimination in one market to gain advantages in another market that are not vertically related. The expert instead proposed to include whether the platform has any conglomerate ties as a stricter indicator for a negative threshold.
<i>Size is an effective indicator in filtering out non-gatekeeper platforms.</i>	The experts agreed however that a proposed size dimension could be important as an early screening method and might be highly effective in filtering out small platforms that are harmless with respect to their relevance to society. One expert suggested that the size criterion should be applied to the platform operator and not necessarily to the relative size of the platform itself. This suggestion was motivated by the fact that there are firms which are rather small but operate dominant platforms in specific niche markets. Another of the experts concurred and noted that although some of those niche platforms might be gatekeepers, their relevance to society is still small and they should therefore be screened out at an early stage.

The criteria should not exclude platforms which are strong in specific segments, but the regulatory burden should be carefully considered?

Drawing on the previous discussion, experts explored the question of whether it was appropriate to delineate the criteria for gatekeepers such that it would capture only the largest conglomerate platforms or might also capture large and growing platforms which are strong in specific market segments. The leading opinion among the experts was that a per se exclusion of these more sector specific platforms would be too premature, but they also stressed that the resulting regulatory burden should be carefully assessed.

It is important to avoid excessive obligations for sector-specific platforms that may provide competition to larger conglomerate firms.

One of the experts referred the problem of where to place the threshold to the classic trade-off between Type-I and Type-II errors in regulation. Ultimately this is a design question the regulator has to answer. In this context, another member of the panel stressed that the threshold and associated remedies should not excessively curtail large but not yet dominant platforms. They noted that some of the sector specific platforms could for example be relevant competitors to the largest conglomerate gatekeepers in submarkets of their ecosystem. The implemented obligations should thus preserve the competitive potential of these emerging platforms. Further, the determined threshold should not be seen as a one-size-fits-all criterion, since the proposed ex-ante platform regulation is not replacing antitrust rules, but rather complementing them.

iii. Remedies

How could remedies be effectively operationalized?

The study team presented the study's takeaways from the case study analysis and discussed the preliminary findings concerning the relevance of prohibitions and obligations to tackle specific problematic conducts. The study team noted that there is a trade-off between the ease of implementation of general prohibitions and flexible, tailored case-by-case measures. They also noted that to be self-executing, prohibitions would need to be carefully defined. The experts commented extensively on the proposed conceptual framework and gave input on how remedies could be operationalized.

<i>Apart from tying and bundling, anticompetitive conducts seem to be heterogeneous and be market specific.</i>	One of the experts commented that the case studies reveal that harmful and anticompetitive conducts are heterogeneous and very market specific. The chosen remedies should account for this heterogeneity which could limit to some degree the ability to rely exclusively on obligations and prohibitions at a general level. However, the conduct of tying and bundling to leverage existing market power to other markets could be an exception to this, as it seemed both prevalent and important.
<i>A mixture of general prohibitions and Code of conduct may be optimal.</i>	Based on the identified conducts from the case studies, the experts widely agreed that a mixture of general prohibitions and code of conduct (CoC) measures may be the best approach towards implementation. The code of conduct ruleset should be elaborated by the gatekeeper firm and approved by the regulator. In this co-regulatory manner, one could make great use of the firm's information and knowledge which would be otherwise costly for the regulator to assess.
<i>If the CoC fails, it should be reviewed and adapted.</i>	One of the experts added that implementation should not incorporate an automatic fall-back option to general prohibitions if the CoC proves to be ineffective. Since the regulator and the firm agreed upon the CoC, it is not the sole fault of the firm. In such a case, the CoC should rather be reviewed and adapted than punishing the firm with direct prohibitions. This point was especially important in highly dynamic digital markets in which future developments are difficult to foresee.
<i>Control bodies of CoC should include all affected stakeholders.</i>	Another of the experts noted that if a Code of Conduct was to be implemented, it was necessary to define and create bodies to oversee compliance with these CoCs. Examples of effective control institutions can be found in Spain where a panel has been formed dealing with users' requests to delete their personal data from Google services and Australia has established a framework that controls the negotiation of royalties in news media with companies such as Google and Facebook to limit the exercise asymmetric bargaining power. The inclusion of different stakeholders in the control bodies was considered important in order to capture all perspectives and reduce the regulatory burden.
<i>Creating fair and comparable access to internal platform data could prove effective.</i>	One of the experts noted that the key guiding principle of ex-ante regulation should be to harness the value from increased network effects enabled by big platforms while simultaneously reducing the harmful advantages the operating firms have through their asymmetric size or ecosystem structure. On this basis, they proposed a three-step framework that could support the achievement of this aim. First, one should wall off the internal division of the platform which has access to platform data and is responsible for analyses. Second, it was important to publish the process of how internal parties can gain access to the data and other resources. In this way external parties would have access on the same terms as the gatekeeping platforms. Third, the regulator should have access to the published specifications and the ability to

ensure compliance with the measure. Technically this could be operationalized via granting multilateral access to APIs.

Internal separation is difficult to monitor.

However, other members of the expert panel remarked that the proposed internal separation of business units within a firm was costly to implement and could be hard to monitor. They noted that there had been many cases of mandated separation in the last twenty years that lead to this conclusion. Especially in the context of digital platforms it would be difficult to detect whether a non-public API is simultaneously used for data analysis. This has implications for the ability to detect some conducts. While self-preferencing through a restricted access to hardware components such as the NFC chip might be easily detectable, algorithmic self-preferencing which has been present in the case of Google-Shopping is not.

It is imperative that the regulator can reproduce algorithmic results.

As a response to the previous points, two of the experts stressed that it was imperative that the regulator should have extensive access to the APIs. The design should such as to enable the algorithmic results to be audited and reproduced. Monitoring of the training data used for algorithm refinement could also be a reasonable obligation.

Closed systems are not harmful by default.

Due to the difficulties in auditing algorithmic processes, the discussion identified the general need to identify a theory of benefits and potential harms associated with technologically open source systems vs closed systems. The wide consensus arose that the problem of enforceability of measures is not present if platform code is openly available. However, the inverse argument of closed systems being automatically harmful is not necessarily true.

Annex 7. Stakeholder feedback

a. Stakeholder interviews

i. Consumers Associations/Organisations

Current state of the market

Lack of competition and innovation. Different consumer associations/organizations emphasized that digital markets are dominated by a very few large players. This poses a number of problems, one of which is the lack of innovation. Platforms that hold monopolistic or quasi-monopolistic power lose the incentive to improve their products and services. On the other hand, it is getting harder for new entrants to innovate or even enter the digital economy. The latter is closely related to two other problems, that one consumer associations/organizations stressed – the lack of investments and consumer lock-in. It was stated that investors describe the lines of business dominated by dominant firms as "kill zone" as they do not invest in nascent competitors, despite double-digit year-on-year growth and billions in annual profits. This would be a prima facie evidence of an anti-competitive market. Lock-in of consumers occurs due to the integrated nature of large platforms, which increases the cost of switching to or using another (probably better) platform.

Furthermore, a recent case was highlighted in which an anti-competitive conduct snuffs out competitors that are preferred by consumers. Srinivasan (2018)⁹³⁵ documents Facebook's deceptive tactics to combat Snapchat, a briefly successful rival whose primary differentiator was a more privacy-protecting posture than Facebook's. Consumers seek to protect their privacy, which the market does not provide, because dominant actors manipulate the market to eliminate alternatives. Another example that was mentioned related to the Google-Fitbit merger. Some Fitbit owners explicitly chose a non-Google device, because they were anxious about having their data taken by Google. Today, Google is buying Fitbit.

In general, more competition can lead to more innovation and improvements of the products and services that platforms offer, but it cannot replace strong user-centric regulation regarding unfair practices, surveillance advertising and user control over what content is shown to users. This is what the DSA needs to deliver independent of a reform of competition rules.

Platforms become more problematic over time. During the interviews it was also discussed whether and when platforms become problematic. The following indicators were mentioned by consumer associations/organisation:

- Closeness of a platform – a reasonable large platform begins to close services off

⁹³⁵ Srinivasan, Dina, The Antitrust Case Against Facebook (September 10, 2018). Berkeley Business Law Journal Vol. 16, Issue 1, Forthcoming, Available at SSRN: <https://ssrn.com/abstract=3247362>.

- Lock-in of users – decreased ease of leaving the platform
- Attempts to foreclose the market
- Financial power
- Size (number of users: weaker indicator, only complementary)
- Vertical integration
- Great user base
- Low competition on the market
- Dependency (Is it possible for users to circumvent a platform and use other services or is it unavoidable?)

As a rule, the tactics of companies can be traced back to three essential steps.

- Growth by mergers and acquisition
- Neutralization of competition
- Vertical integration

For instance, by 2002, Google's motto was "don't be evil", because it would have been easy to leave Google. Later on Google merged with its major competitor, swallowed other competitors and vertically integrated. Google is now an economically powerful company. Google did not develop most of its successful products itself, but bought them.

Benefits and harms

Large platforms provide certain benefits.

Although some platforms offer positive added value to people, being a centralized platform is not a precondition for generating positive added value. The aim should be to maintain the positive aspects that platforms have without them becoming centralised mega platforms.

Bundling does not guaranty high quality and forecloses markets.

With regards to bundling it was pointed out that it is a strategy to further integrate markets and leaving less space for competitors to offer similar services. It was further explained that bundling forecloses "a la carte" approach to tools. For instance, Microsoft Teams only integrates with Microsoft's proprietary VTC tools, such as Skype. This is a major disadvantage for users who prefer to use other services like Zoom. This would amount to a cross-subsidy for an inferior product that frustrates consumer choice and rewards firms for their dominance, rather than their ability to serve their customers.

Another association/organisation raised the question whether, although the general assumption is that consumers prefer bundles, consumers would still prefer bundles, if they were actually able to choose.

Furthermore, companies usually argue that bundling allows them to offer the same service quality across their product portfolio which would otherwise suffer. The same organization provided some examples to illustrate that if companies refrain from bundling services the product quality would not suffer. For instance, Windows has not been a better OS, because people could use MS Media Player rather than VLC or others; Android phones don't decrease in quality because people use Firefox, Opera or another mobile browser of their choice rather than Google Chrome; iPhones don't decrease in quality if users choose Waze or OSMand over Apple Maps. In fact, some of these competing apps are even better in quality or may simply better respond to individual users' preferences.

Any steering techniques should be made visible.

The main problem is that consumers are being nudged in an invisible way. If consumer's choice with regards to the platforms they (can) use is limited the less likely they are to notice any steering techniques. This will ultimately lead to less freedom of choice.

Consumers need to be able to determine whether they want to be influenced or shown targeted advertisings. The problem is, for instance, that ad-tech firms claim that consumers "prefer targeted advertising" and do not provide a means to opt out. Even when consumers try to avoid targeting and tracking, for example by deploying ad-blocks, the same firms deploy countermeasures.

App Stores are bottlenecks.

App Stores are bottlenecks for developers and businesses to reach consumers. They are able to shape the market access of new products and users options. The high fee charged by App Stores intensifies the bottleneck problem. Firms that are not able to raise prices or afford a 30% cut of their profits either do not enter the market at all or exit. Ultimately, consumers' choice, diversity, and innovation will decrease.

Social Log-Ins are not a problem per se.

One consumer association/organisation explained that Social Log-Ins not a problem per se. They are problematic because platforms that provide Social Log-In services are already dominant. The same association/organisation also provided solutions that might reduce data collection and break dominance:

- Developing a decentralized and privacy-preserving EU Log-In button/service.
- Obligating businesses that implement the Log-In service of dominant platform to also implement an open standards Log-In button as well.

Interoperability is needed.

The consumer organisations/associations welcome (regulatory) measures to enable interoperability. They agree that dominate or large platforms should be obliged to become interoperable with others (one-way approach).

The organisations/associations provide some solutions to ensure interoperability:

- Development of an open standard/protocol
- Obligation on dominate platforms to expose features via an accessible, open, and well-documented API
- Competitive Compatibility: This solution will not oblige large platforms to offer any APIs, but they would be prohibited to block any interoperability efforts by other platforms. The threat of Competitive Compatibility will discipline firms' actions in relations to their APIs: a firm that downgrades an API loses a managed and predictable form of competition, but Competitive Compatibility could replace it with an unquantifiable, unmanagable, unruly competitive landscape in which dominant firms' engineering staff have to engage in hand-to-hand combat with upstarts engineers' as they jury-rig improvised interoperability layers to connect with dominant firms' products and services.
- Delegability: This solution proposes that certain aspects or features of platform are delegated to third-parties. Delegability must be accompanied with strong privacy, security and anti-discrimination rules, and should ensure that user data made available for the purpose of interoperability may not be used for other purposes.

One organisation/association challenged the general argument that people are using large integrated platforms because they are more efficient and tailored to consumers' needs than other services by asking 'if platforms are in fact confident that they are providing the best service available, why are they blocking other services (e.g. App Stores) or interoperability?'

*Asymmetric
discloser of
information.*

One organisation stated that consumers' provision of data for services cannot be a fair exchange, because for consumers the true value of their data will always be opaque. They will never know the actual value of data because (1) markets are too complex and intransparent and (2) the value of personal data is not linked to the data of one individual person but only becomes visible once combined with millions and billions of other data points. All that is impossible to know for consumers/users/people. Furthermore, as data is becoming a commodity, so is privacy. Consumers are selling away a fundamental right.

Data exchange also results in social injustice: If data and privacy are commodities, people with less financial resources are being disadvantaged. Rich people can pay for services and preserve their privacy, others have to share data in order to use a service for "free".

One organisation also raises the question of whether data, which date back years actually add value to the improvement of targeting techniques today. Platforms' claim that data from past years is in fact valuable today, rests on their intention to sell these data.

Data portability has not been properly enforced. One organisation/association explained although it is proponent of data portability, it is not effectively applied. Data formats are needed and interoperability is crucial to make data portability useful. Interoperability and data portability should complement each other.

Remedies

There is a regulatory gap concerning conducts by powerful online platforms. Competition law and existing policy tools may not be able to prevent large digital platforms from abusing their market power. The past has shown that competition authorities lag behind. By the time remedies were decided and enforced, it was already too late. The market conditions had already progressed and those remedies had no impact. It was also stated, that competition policy should not be solely a market regulation tool, but should also consider the political and social impact of its tools when assessing the power of large online platforms.

Transparency is needed. The organisations agreed that authorities need to have a better understanding of certain practices, so they need information. Greater transparency would be useful.

Consumer organisations favour an EU-level approach and ex-ante regulation. Consumer organisations favour an EU-level approach. One organisation added that even a strong national oversight and enforcement regime is better than no oversight at all. They also agree on the importance of ex-ante regulation with regards to the issues caused by large dominant platforms.

A new regulatory framework

- has to provide a clear definition of a “gatekeeper” platform.
- should not target dominant platforms per se. A well-functioning dominant platform should not be punished. But the DSA should introduce ex ante interoperability obligations for platforms with significant market share (“gatekeeping” platforms) to empower users and encourage more competition and dynamic in the EU platform economy.

Non-legislative approaches are not able to address the issues. Consumer organisations are not in strong favour of soft or non-legislative measures like Codes of Conducts. They are more likely to opt for legislative measures

Impact

Without intervention large platforms will further manifest The consumer organizations agreed that without intervention current trends/developments will persist. Large platforms will most likely manifest their dominant position. There will be less

their dominant position.

space for innovation and less consumer choice. Targeted advertising will be the only way to make money via the internet.

ii. Platforms

Large Platforms

Current state of the market

Competition is fierce and innovation is at its core.

With regards to the e-commerce sector, one online actor explained that competition is fierce. New players and marketplaces are continuously emerging and entering the market, from pure online players such as Wish and Allegro to strong brick-and-mortar players such as France's FNAC and Carrefour that are moving online. The actor concluded that this is an indication for low entry barriers.

Also, actors in other sectors like travel and tourism explained that a large number of players are active on the market. In general, it has been said that this market is highly diverse and fragmented. There are a great number of ways for consumers to discover and book accommodations and for accommodations to reach consumers and distribute their inventory. More than 50% of all bookings are made directly with the accommodation while the remainder is split among travel merchants and OTAs⁹³⁶. In addition, there are meta-search sites feeding all of these channels but increasingly also offering their own booking functionality.

The interviewees also indicated that they are in constant need of innovating, improving their services and adding new ones in order to compete for consumers and stay relevant on the market. Some invest in building own ecosystems and logistics in order to be able to compete against players like Amazon in the e-commerce sector. Others in the travel and tourism sector are eager to become more app- and mobile-oriented to circumvent reliance of desktop and search engines like Google, and also invest heavily in brand recognition, so that consumers search directly for the company or service rather than using generic search terms.

One interviewee operating in the travel and tourism sector defined three types innovation:

- Companies are constantly trying to improve their user experience or match quality to increase transaction volumes and make marketing spend more efficient.
- Companies are competing in the ancillary services they offer to partners/consumers
- Companies compete in creating new products/offering.

In e-commerce, there are mainly two areas of innovation:

⁹³⁶ Online Travel Agencies (OTA)

- Shipping and fulfilment
- Advertising and marketing

Innovation is not only motivated by competition but also by changes in consumer preferences.

It was explained that innovation is motivated by competition and by changes in consumer preferences. The latter is particularly important in consumer markets such as accommodations. There are few barriers to innovation as the market is highly fragmented and there is wide-spread multi-homing. This makes testing a new product idea rather easy. The actor also indicated that Harvard Business School professor Thales Texeira has argued, that it is not primarily technology driving most disruptive innovations today. Consumers are. This is particularly true for the accommodations sector. As Texeira points out: "Airbnb didn't disrupt Four Seasons Hotels. Customers did - by changing their behaviors to satisfy their evolving desires. Travelers wanted family spaces beyond bedrooms. They wanted authentic travel experiences. Airbnb [...] simply managed to deliver more completely and quickly on those requests than the dozens of global hotel chains around the world."

Multi-homing is present in the e-commerce sector and the accommodation sector.

As briefly indicated in the above, the interviewees stated that there is a strong presence of multi-homing on online marketplaces, collaborative economy and accommodation sector. Merchants, drivers and hosts/hotels are often using multiple platforms to promote products and services. Multi-homing is a basic strategy of business users. They do not depend on certain platforms.

One interviewee added that online retailers do not face any lock-in effects or high switching costs.

Interviewed platforms have a positive relationship with its business users.

The (platform) companies' relationship with businesses, relying on their service, can be described either as good or as amicable professionalism. In general, the companies endeavor to maintain a healthy relationship with all its partners, which include open communication, providing support, finding solutions in case of any problem and providing supplementary services like free API for channel management software etc. They are also committed to provide benefits to the partners like granting access to (aggregated) data (depending on the sector this include among others consumer, revenue, trend, and market data) so they can improve their own services. Especially, actors operating a platform in the e-commerce sector indicated that their own success depends strongly on the success of their business users.

Harms and benefits

Platforms provide value for business and consumers.

For instance, OTAs allow consumers to compare the price and quality of many more accommodation offerings than they could without OTAs. This increase in transparency and reduction in search costs results in direct benefits to consumers by helping them identify accommodation that best meet their needs. In doing so, it also enhances interbrand competition, resulting in lower

prices, higher quality of offered room rates, and in some instances, new services/optionality valued by consumers. Accommodations also benefit from OTAs. Most accommodations either do not have a website (or a mobile enabled website) or have a website which is not of sufficient quality (no instant booking functionality and/or only one language) to generate a material volume of bookings. Moreover, marketing a direct distribution channel is a complex and costly activity. Furthermore, OTAs give visibility to properties that otherwise would not have been found.

Also online actors in other sector indicated that they provide value added services for business (to reach consumers) but also for consumers themselves.

Interviewed platforms do not engage in self-preferencing.

All interviewed actors stated that they have not been engaging in or facing any complaints regarding self-preferencing behaviour. They do not compete with their business users.

One actor however added that self-preferencing itself may not be harmful. Self-preferencing behaviour by large gatekeeper platforms, however, is damaging for competition. The actor continued that it is not the size of a company on its own or the action on its own that is problematic, both combined is what generates problems. For instance, regulating (Google's) self-preferencing would enable all players to compete on a level playing field. However, a legal design that prohibits any degree of self-preferencing would harm the ability of smaller platforms to compete.

Disagreements in terms of data access.

However, one online actor operating in the travel and tourism sector indicated that there has been some disagreement in the past about access to customer data. The actor stated that they share necessary consumer data like customer's name, phone number and masked email address. Businesses can email customers via an integrated messaging system. However, some are pushing for the actor to share unmasked email addresses. The reason masked email addresses are shared is to protect customer's data and prevent freeriding.

Interviewed platforms are competing or depending on other large platforms

Some of the interviewed online actors indicated that they are heavily reliant on other platform providers like e.g. Google and Facebook. For instance, Facebook is in a position to impose certain terms and conditions that grants them access to business and consumers data. The same apply to Google; Businesses use Google Analytics to monitor their business development. However, Google has access to that data as well and as such know what kind of campaigns are currently rolled out, service are provided etc. Google also knows if any endeavours are successful. Thus, Google can essentially copy services; products etc. and still place themselves on the top of the search results.

Another respondent is concerned that large companies such as Google, which can access their business users' data, have a competitive advantage if they decide to enter a market

themselves. It has also been stated that business relationships with large platforms are usually asymmetrical.

Self-preferencing by large players harm interviewed online platforms.

In the travel and tourism sector, players are losing traffic because of Google's self-preferencing behavior. Since loss in traffic relates to loss in revenue, their abilities to invest in innovation and new services decreases.

Remedies

A clear definition of "gatekeeper" platforms is needed.

The online actors emphasized the importance of a clear definition of a gatekeeper platform. One actor suggested looking at the degree of multi-homing in order to determine a gatekeeper platform. In the accommodation sector, a starting point could be to look at clickstream data, multi-channel managers, and scraping data from aggregators such as meta search sites.

During one interview, it was stated that regulation should mainly focus on consumer-facing platforms that act as gatekeepers to consumers. Especially, in the e-commerce, there are two types of platforms in the market:

- Consumer-facing platforms like marketplaces that directly connect with consumers.
- Business-facing platforms which provide businesses with technical infrastructure to reach consumers directly

So far policy concerns have only been raised in relation to gatekeepers to consumers. Therefore, the following elements for a platform to be classified as a gatekeeper has been proposed: (i) platform that has the ability to control the consumer relationship, (ii) collects data, and (iii) controls who has access to that data.

It was also explained that large platforms control the time consumers spend online and, thus, act as gatekeepers to consumers' attention. Consumers' attention is directed to or "collected" by a few players in the market. Attracting a lot of attention is a sign of dominance, because these platforms can easily redirect that attention to their other services and businesses. Thus, total consumer time (TCT) spent on a certain platform or service might be an indicator to measure gatekeeper power.

Sceptics of a (ex-ante) gatekeeper regulation.

Some online actors are skeptical and concerned about gatekeeper regulation. They most certainly believe that the general competition law and existing regulation is adequately equipped to deal with challenges related to gatekeeper platforms. In fact, existing tools are already addressing concerns with regards to platforms such as self-preferencing.

An actor in the e-commerce sector argued that online platforms include a wide variety of business models and concerns and issues are different for each business model. For example, app stores enjoy high entry barriers and single homing of

consumers/users. In contrast, ecommerce marketplace business is characterized by low entry barriers and multi homing consumers/users. Any regulations must consider the difference of each business model – i.e. no horizontal or one size fits all regulation. Otherwise, measures designed to curtail abuses in a business model will create negative effects on other business models. An overbroad, ill-designed digital gatekeeper regulation risks resulting in unintended and often negative consequences.

The same online actor hints to two potential pitfalls from strict regulation:

- If a new regulation differentiates between small and large platforms, and only large platforms are regulated, this will cause an asymmetry – and be ineffective in curbing illegal content. Small platforms that are not obliged to follow the new laws will attract illegal content pushed off by large platforms.
- A strict, broad Digital Gatekeeper regulation would cement the position of large players, limiting the ability of other platforms to compete.

Another stakeholder also stresses that a case-by-case approach would be the better approach. Ex-ante regulation may be faster than a case-by-case approach, but it might also become obsolete quickly and/or have unforeseen negative consequences. Blacklisting also runs the risk of being outdated quickly.

It has also been said that if there should be additional gatekeeper regulation, it needs to be constructed very narrowly and be applied on a case by case basis taking into account the actual effects. For a very limited set of conducts, where there is a strong presumption of anti-competitive effects (e.g. self-preferencing of vertically integrated gatekeepers), there could be a reversal of the burden of proof. In general, it will be important not to reduce the incentives for innovation by making it hard(er) for companies to appropriate the results of their risky innovation efforts. At the same time, making markets with entrenched incumbents more contestable or curbing abusive behaviour also enables innovation which will result in better choices for consumers.

Proponents of a gatekeeper regulation.

A proponent emphasized that existing tools are ineffective and not sufficient to address any issues related to gatekeeper platforms. Ex-ante regulatory regime that specifically targets large gatekeeper platforms is needed. But there will be always the need of a case-by-case approach and a blacklisting of conducts as well. The list should be constantly adjusted on a case-by-case basis.

EU-level approach is favoured.

Proponents but also sceptics are more in favour of an EU-level approach. One actor added that a crystal clear definition of a systemic platform is the key. A fragmentation of definition will only lead to a lack of legal certainty.

Sceptics and proponents have different opinions regarding non-legislative approaches.

A proponent of gatekeeper regulation indicated that Codes of Conduct are not enough. They are toothless instruments. Instruments that have the ability to discourage certain behaviours and impose remedies are needed. Soft law or non-binding instruments are not strong enough to tackle current issues.

Other actors are more in favour of Codes of Conduct. One actor added that they could be useful to address certain issues that are very sector specific and which would otherwise require very detailed legislation or long enforcement action to be implemented. If there is a clear market expectation that these codes will be enforced by legal action if necessary they can be quite effective.

Impact

Online actors picture two possible scenarios.

Without proper regulation large platforms like Google and Facebook will continuously expand their market position. Other players will start dropping out of the market and large platforms will eventually be the only player. Some businesses are most likely to be swallowed, consumer choice will decrease and prices increase. Furthermore, the data gap between large platforms and other players will never be closed, but will get larger. It is feared that large platforms will use their power to access data from other companies, combining that data with their internal data and sharing it across all of their business segments. Regulatory intervention will help the economy grow in a more balanced way.

The other position is that the imposition of a digital gatekeeper status could hurt, not help, competition.

Small (Entrant/Competing) Platforms

Current state of the market

There are some slight differences between markets.

In the music streaming market, it is becoming increasingly difficult for small companies to enter. The only companies that might still have a chance of entering the European music streaming market are large companies from e.g. Asia. Those companies are already big in Asia and have significant financial power to be able to compete with platforms like Google, Amazon or Apple. In the future, it is expected that the number of mergers and acquisitions will increase, because large platforms have the ability to swallow smaller service providers and other companies which will have an impact on the entire market.

The cloud market is also highly concentrated. Entering the market and competing with already large players is difficult, due to their broad portfolio and scalability. For this market as well, the interviewees emphasised that large players are continuously acquiring innovative small companies and integrating their innovations into their ecosystems / service portfolios, expanding their (esp. conglomerate) footprint.

There is some more diversity in terms of competition in the ride hailing market, however. One actor emphasized that there is no dominate, so called super platform in the market yet. However, exclusive agreements with drivers make market entry more difficult for new entrants. Those agreements can be barrier to enter the market in certain countries.

Harms and benefits

Service provided by large platforms are beneficial and reliable, however, they are not better or superior then services offered by other (smaller) players

Music streaming services offered by Amazon, Google, and Apple are reliable. They are (financially) powerful providers, so they are able to offer attractive services to consumers. The features, however, offered by these large platforms are not better or superior to the features offered by some of the pure players in the market. Actually, pure players such as Spotify or Deezer may offer features that are not available on large platforms, e.g. lossless quality, word-by-word synchronised lyrics. The same holds for the ride hailing market.

Small (entrant/competing) platforms rely on services provided by large platforms.

An actor in the ride hailing industry explained that they are relying on platforms like Facebook and Google for advertisement and on mapping services. In the music streaming sector industries businesses are more likely to rely on app stores. In the cloud market, new entrants also rely on partnering with large dominant provider in order to ensure relevant and viable offerings. As a result, they have less bargaining power and have to accept certain bundling obligations and unilateral terms and conditions on a "take-it-or-leave-it" basis.

Problems faced by small platforms.

Especially with respect to App Stores music streaming services face some problems including:

- Delays in App releases
- Prohibition of any alternative payment solution to IAP in the iOS ecosystem
- Due to Apple's 30% commission rate, Premium Subscription had to be promoted at higher prices on the Apple App Store by pure players than Apple is promoting their own service
- Advertising Premium Subscription available on own website at a lower price is prohibited.

Furthermore, by using Apple's IAP information gets lost in related to payment failures as well as to reasons that motivated iOS subscribers to terminate their Premium subscription. Losing this information prevents players from accompanying its subscribers and helping them when they encounter some difficulties to subscribe or renew their subscription. It also deprives players of useful information which would allow it to improve the user experience, maximise conversion and reduce churn. In addition, by using Apple's IAP, market players share information with Apple. One concern is that this shared information could be used

by Apple to target subscribers convincing them to switch to Apple Music.

Prioritising own services constitute problems as well. After Apple acquired Shazam, Shazam prioritised Apple Music.

One a more general note, one interviewee explained that large platforms often benefit from extensive network effects and other structural features, such as economies of scale and scope, switching costs, data-driven feedback effects, which shield them from competition. As a consequence, they enjoy market power which tends to be durable in platform environments, eliminating competitive constraints and facilitating anticompetitive practices.

Remedies

EU-level approaches.

It has been stated that the EU has to ensure that in the future European actors are not pushed out of markets. Especially in the ride hailing sector the lack of EU harmonization as well as the presence of fragmented national and local regulation prevents players to extend full scale in many countries. Other actors stated that they prefer an EU-level approach on gatekeeper platforms – esp. to avoid fragmentation and reflect business / market realities of platform businesses, which mostly are global or at least cross-border in scale.

Current legal tools are not able to address problems to their full extend.

Online actors explained that current regulatory and political tools are not able to address current problems:

- Competition law is too slow and complicated.
- Platform to Business Regulation helps in facilitating transparency, but is not useful in terms of addressing issues with respect to gatekeeper platforms.
- The Data Protection legislation is a regulatory framework for the use of data, but does not address the issues with respect to gatekeeper platforms.

A new framework is needed, which should be tailored to the current problems of gatekeeper platforms.

The new regulation should...

Generally, regulation should target certain types of conducts that are not acceptable such as hindering other players from implementing their own payment system, blocking communication with subscribers and other unfair practices.

Ideally, there should be fairness principles that apply to all platforms as well as specific rules that target large platforms in particular.

If an ex-ante regulation will be adopted it is important to define clear criteria which indicate a gatekeeping position and likely market failure. Remedies should be evidence-based and targeted, therefore it is crucial that the markets concerned are

monitored continuously to facilitate swift and accurate intervention

Impact

Positive impact of intervention

In the music streaming sector, without intervention it will become even harder for smaller players to compete with large platforms. In the long run, small players might eventually drop out of the market.

With intervention, consumers would benefit from lower prices and more choice. Small businesses would be able to invest more in innovation and the creation of new features

iii. Business users

Current state of the market

The importance and use of online sales channels increases.

Representatives of merchants, brands, and manufacturers described that online sales channels have gained in importance over time, especially during Covid-19. Companies increasingly promote and sell products via platforms.

The strong presence of online platforms is also reported in other industries. In the hospitality sector about 30% of bookings of accommodations across Europe are made via OTAs. Direct bookings have been declining since 2010 (10 percentage points between 2013 and 2019), whereas Bookings via OTAs have been increasing by about 10 percentage between 2013 and 2019. The most dominant players in the OTA market are Booking, Expedia, and HRS. These three players control 90% of the OTA market (oligopoly).

Platforms are diversifying and striving for network effects.

These large platforms have long ceased to operate only in their core segment, but have also been continuously expanding their business activities into other segments. For instance, they deliver products of resellers, conduct data analytics, engage in advertising activities, provide cloud services, (videos and music) streaming services etc. They are striving for network effects; using consumer visits on one platform to develop new products and services. Besides the horizontal and lateral expansion of their business activities, some platforms have started to integrate vertically. With respect to marketplaces it was pointed out that those platforms are developing their own line of products, which compete with resellers, brands, and manufacturer products. Thus, these platforms engage in a dual role, being both a platform service provider and supplier/retailer of its own products. This results in challenges from a competition perspective.

New trends in the retail sector: "Social shopping" and Shopify.

Currently new, but already existing players entering the retail market. Social networks/applications are diversifying their activities as previously platform did. These platforms have started as content driven and are now integrating product sales in their offerings.

Furthermore, one interviewee hinted that when manufacturers and retailers had to temporarily close their brick-and-mortar premises and provide an online offer due to Covid-19, not everyone turned to large platforms like Amazon and eBay. Some of them started using platforms such as Shopify to set up their own online shop. Shopify is an innovative new player.

Fair competition facilitates innovation

Brands and manufactures compete on innovation and try to reflect societal expectations in terms of digital, technology, or sustainability. Because innovation requires great investments and some sort of insurance that the innovation will be distributed and can reach the markets it is crucial that a regulatory framework effectively support innovation and sanction unfair trading practices – especially in the case of gatekeeper platforms. Otherwise there will be less innovation on the markets.

Indication to determine a gatekeeper platform.

According to one interviewee a "gatekeeper" has the ability to determine the extent of a supplier's access to the market, and the terms on which such access will be made available.

The following indicators for "gatekeeper" platforms were mentioned:

User dependency. Example 1: According to the ruling of the French court 25% of resellers on Amazon.fr were not present on another platform nor had or could afford a DTC online business. Furthermore, the court concluded that resellers are unlikely to reach the same number of consumers visiting the larger platforms through the development of a single sales activity. Example 2: 56% of hoteliers feel pressured by OTAs to accept platforms terms and conditions that hotels would otherwise voluntarily not offer.

Being a "must be on" platform: The "must be on" platform benefits from a huge awareness rate; high consumers penetration, and purchase frequency. All these factors constitute high network effects.

Platform size: The platform size can be determined as a mix of the volume that is traded via a platform but also the diversity of the businesses they engage in. A great platform size allows platforms to invest in technologies and develop services, others parties do not have the means for to develop.

Multiple roles – acting as a platform service provider and competitor: Being a platform provider allows platforms a unique perspective of the performance of different products and can determine what is trending or will trending in the future and ultimately compete with these products.

Data practices

It was also argued that size per se is not a problem, but the platform's behaviour.

Problems started when platforms started to expand

From the perspective of brands and manufacturer, most of the problems today like unilateral approach to terms and conditions, the unfairness of some terms or practices like services bundling

their business operations.

or self-preferencing, emerged or emphasised when platforms became a “must be on” platform and/or developed business operations which compete against the resellers or manufacturers activities.

Harms and benefits

Platforms provide business opportunities and increase reach.

None of the interviewees deny the positive implication platforms have on businesses. Platforms enable smaller operators and start-ups, in particular, to establish and expand their business activities. Many start-ups rely on services provided by larger players (e.g. Google Maps) to build their services and some SMEs would not exit if they did not have the opportunity to trade online. Due to platforms SMEs are able to unlock new market and attract new consumers. Platforms increase brand awareness and visibility, foster consumers trust and add value to marketing. They can benefit from platforms’ existing infrastructure, e.g. logistics. For instance, Amazon Fulfillment was described as a very useful product which is provided for a competitive price. It would be more costly for SMEs to manage fulfillment on their own.

At least for some start-ups, being bought by large platforms can be an attractive exit strategy.

Platforms copy products.

Beside those positives effects, interviewees provided some insights on harmful conduct. During the interviews, it was stated that business face a growing presence of counterfeit products. Sometimes when brands or manufacturers launch new product categories with platforms, shortly after, the platforms develop and sell products in the same product segment. As evidenced by courts, in some cases, the platform uses information on new products to develop similar products. Sometimes those copied products launches bevor before the originals.

Self-preferencing is an issue faced by sellers.

At the same time, some platforms self-preference by promoting their own products at the expense of other sellers. Others may also free ride on the brands or resellers awareness to drive traffic to the platforms. For instance, it was noted during an interview that consumers who were willing to buy a manufacturer’s brands have seen the platform suggesting to replace the manufacturer’s brands by the platform own designed products/brands. According to an interviewee the French Court even observed, that in some cases the consumers were not even aware that the reseller they chose was replaced automatically by another. Such practice was considered as unfair trading practice by the court.

Furthermore, it was pointed out that the French Court has received evidences of resellers which were removed from the platform (unilateral stop of contract without notice) as the platform retail business started to offer the same products than the ones put on sales by resellers. It was also indicated that the French Court also found that companies which purchased additional services from the platform were found to be offered

self-preferencing treatment/exposure by the platforms at the detriment of resellers which did not accept to purchase the additional platform services.

Self-preferencing is not an issue in all industries, at least at the moment. In the hospitality sector, platforms do not own hotels. However, the representative of hotels, among others, stated that a legal framework should be in place to prevent self-preferencing from happening in the future. Thereby, different kinds of self-preferencing should be considered, e.g. Trivago and Expedia, where a meta-search engine and an OTA are owned by the same entity.

Large platforms tend to enforce their own rules and standards.

Large platforms also tend to enforce their own rules e.g. regarding packaging, product design. This makes it difficult for (re)sellers, manufacturers, and brands to standardise products and production. It is expensive to fulfil the requirements of each platform. This makes difficult to be present on several platforms. Furthermore, large platforms do not always respect global industry data standards. This also increases the costs for companies who would like to sell their products or services via multiple platforms. Such conducts are challenge for competition; they reinforced dependency and dominance, leading to market concentration.

Platforms charge high and constantly increasing commission fees/rates.

The interviewees reported an increase in commission fees across sectors. Sometimes platforms charge higher commission fees without any indication that a service has been improved. For instance, it was reported that Amazon takes a significant cut for marketing, but business report that the quality of their service has not increased. High or increasing commission rates can be, especially, problematic when SME highly depend on platforms. If a very high share of a company's revenues in generated via one platform, even a slight change in commission rates (as well as terms and conditions) will have a significant impact in that company's profitability.

It was also noted that Amazon can charge such excessive commission rates that under certain circumstances, the total cost of delivery/Amazon logistics can be higher than the price of the product itself. Such practices tend to lead that products of certain (re)sellers are not distributed anymore. In addition, business sometime have to pay for additional "retail" or "platform" services, which are not always of interest for them.

Small businesses have poorer access to advertising.

One interviewee stated that due to the lower financial means compared to large OTAs, hoteliers cannot afford advertisement to be ranked on the top. The consequence of this is that even if the consumer enters the name and location of the hotel in the search engine, the hotel's own website appears much further down the ranking. Usually consumers will opt for the results shown at the top.

Platforms grant limited access to data.

Although the interviewees recognize that some platforms are willing to share data, most business users do not have access to data that is necessary to develop their business, to improve their offer to consumers, and to create services. For brands, manufacturers, and resellers this necessary data is consumer data (ratings, shopping behaviors, navigation on the platform etc.), data on fulfilment, products returns by consumers, products damaged in delivery, payment, cloud services etc. Hotels on the other hand, generally, need basic consumer data like name, age, nationality and credit card details to make reservations and provide service. Even when data is shared, it is exchanged without sufficient granularity, with a considerable time-lag or only a portion of the data is shared. Resellers, brands or manufacturers have to work with specialized companies to actually utilize the data and derive value from it as the data provided by platform do not always follow the international data standards. This brings additional costs, which could be avoided if data standards were applied.

Poorly shared and analysed data provide less valuable insights on consumers' expectations and businesses performances. However, greater knowledge and efficiencies are key factors to promote innovation, to offer more choice and more greater customisation to consumers' needs or aspirations.

A representative of hotels also hints to the fact that platforms are able to increase their databases due to hotel offerings, but hotels themselves are not able to benefit from this data. The common perceptiveness that hotels may not have the capacities and capabilities to derive value from data does not hold. Large hotels and hotel chains have the capability to use and derive value from large amounts of data. In general, hotels will not make investments in digital marketing if they cannot access data in the first place. Furthermore, although the GDPR is supported, the organization states that it can be harmful and is seen as abusive if large platforms bend those rules to not share data.

A representative of start-ups provided a slightly different view. Start-ups that employ a strongly data-driven business model are keen to have access to more data when they start, since it could foster innovation. However, once start-ups are established, start-ups become more reluctant to share data (due to effort they invested). In general, data is a business asset and policy makers should be making informed policy decisions that consider this aspect.

Transparency is important for ensuring a level-playing field.

Transparency as well as clarity is important for ensuring a level-playing field. During an interview it was pointed out that a set of national platforms investigations reach the understanding that platforms terms and conditions are very complex (and long), unlikely read and understood by the resellers (most often SMEs). Authorities and courts in some countries defined that it is not sufficient to detail the terms in agreement (passive publication on website) but communication has to be established with users and resellers. Platforms were requested for example to proactively

inform the resellers of any changes to the platforms terms or functionalities, ahead of these changes. In Italy platforms were also fined for not having provided sufficient and clear information to the consumers ordering on the platform.

Anticompetitive strategies like price parity clauses.

Platforms network effects as well as platform dual role can allow platforms to launch predatory pricing strategies. Platforms retail activities, in general, benefit from a scale other (re)sellers cannot achieve. In addition, the platforms' business diversity allows them to expand its retail business with the financial balances of their other activities. As such, platforms can easily win a price war against independent (re)sellers that cannot follow the consumer price some platforms can offer. Furthermore, some investigations highlighted for example that Amazon terms and conditions were presenting a clause requesting (re)seller to 'align their price for Amazon on price offered to other platforms'. Similar clauses are employed by other platforms as well. Hotels are (at least in some countries) bound to narrow price parity clauses/most-favoured-nation clauses which prohibit them from offering lower or other prices on their own websites.

Tying and bundling

Tying and bundling of services is also an issue in the context of large platforms. This behaviour can lead to market foreclosure of competitors. This kind of behaviour can be seen with Microsoft, which tying its Teams product into its market-dominant applications (Office and Exchange). As a result of such behaviour, consumer choice and innovation can wither in the longer term. Consumers will be "locked-in" and investments will be reduced, without any competitor.

Other issues.

The following issues were also stated by the interviewees: Malicious or fake reviews, sudden changes to terms and conditions, de-ranking of product on search results, de-listing of products or services. Fulfilment services for (re)seller are also becoming increasingly important indispensable. However, for instance, Amazon's terms for its fulfilment services, in relation to Amazon (lack of) liabilities were investigated and considered unfair in France. The bundling of services and self preferencing of Amazon Fulfillment services and Amazon logistics are investigated in Italy.

Remedies

Interviewees identify regulatory gaps.

One interviewee explained that competition law can address some of the problems described, but data leveraging activities by platforms are difficult to capture in competition law. The Platform-to-Business Regulation imposes transparency. However, according to one interviewee the transparency requirements do not ensure fairness or provide alternative option. Another interviewee stated that an oversight of the regulations' enforcement would have been preferred.

	<p>According to another interviewee the issues relevant for the vertical block exemption regulation are also relevant with regards to large gatekeeper platforms imposing narrow price parity clauses.</p>
<p>EU-level and ex-ante approach is preferred.</p>	<p>The majority interviewees favour an EU-level approach. During one interview it was added that it would be cumbersome for companies to function, if different national bodies deploy different definition and approaches to access the gatekeeper role.</p> <p>The majority also favours an ex-ante approach. One interviewee, however, explained that possible competitions issues have to be addressed individually, not per se “ex ante”. Ex-ante rules could harm new business models and make it harder to navigate for start-ups. Also legal certainty is important; there is a need for a case-by-case investigation of problems. In addition the interviewee stated that an increasing number of rule, can also lead to more unintended consequences: Small players are also hit as they need to buy services of bigger players for their business</p>
<p>Ambivalent statements with regards to blacklists and</p>	<p>Interviewees either stated that they concerns regarding blacklisting or that blacklisting certain behaviour is not an ultimate approach, because large companies will find a way of circumventing. It was also stated that if the blacklist is drafted properly and in a robust way and prevents platforms from utilizing certain loopholes, blacklisting might actually work. And, some conducts should be blacklisted like e.g. conducts that impact a company’s freedom to set prices or sudden changes of terms and conditions without sufficient notice and clear language. However, the blacklisting approach should be dynamic.</p>
<p>non-legislative approaches.</p>	<p>The majority of interviewees were also reserved as to the efficiency of non-legislative approaches, Codes of Conduct and self-regulation. One statement was that if there is no enforcement by authorities, companies will continue to misbehave, simply because they can (need for legal consequences).</p> <p>However, some interviewee welcomed a Code of Conduct. One interviewee added that it should be monitored by an observatory or a regulator. For the beginning, an enforceable Code of Conduct might be the best approach. If this attempt fails, an ex-ante regulation should be the next step.</p>
<p>Any new regulatory framework should consider or address the following:</p>	<ul style="list-style-type: none">• Preventing the formation of monopolies, but also duopolies, since joint dominance can lead to prices being the same everywhere.• Making platforms responsible for illegal or misleading content.• Addressing price parity clauses• Addressing asymmetries on the advertising markets.

- Obliging companies to respect certain business principles like fairness and transparency are required.
- Applying a forward-looking approach, because platforms that are not dominant today might become dominant in the future.
- Creating blacklists and banding practices that might lead to monopolistic scenarios in the future
- Imposing targeted conditions for gatekeeper online platforms
- Applying a clear and precise definition of a systemic or gatekeeper platform. The definition should be very targeted , otherwise the whole internet might be regulated.
- Providing “clear rules” and legal certainty for business to grow.

Impact

Without intervention and an effective framework platforms will continue to expand their business and position.

One interviewee explained that without any actions large platforms will continue to behave as they doing now. Niche players and start-ups will be overpowered by large platforms. The market will further concentrate. Business users will depend even more on platforms. SMEs are concerned about a future scenario in which SMEs cannot operate or exist without being represented on a large platform like Amazon. Overall without a policy framework that does effectively support innovation and does sanction effectively unfair trading practices there will be less innovation on the markets, and consumers, the economy and businesses will be harmed.

Impact of intervention.

Fairness will increase and harmful conducts will decrease. One interviewee, however, assumes that there will be no impact on innovation. The same interviewee is concerned that large platforms probably may pass on the cost of complying with new obligations on SMEs (e.g. additional digital service tax and Amazon).

iv. Academia

Harms and benefits

Conglomerates are a problem per se.

The experts agree on conglomerates being a problem per se. Large platforms like Microsoft, Google and Apple are basically only competing among themselves in different sectors. Conglomerates are initial failures of the gatekeeper market itself and they are not only problematic from a competition economics point of view, but also from a social point of view.

Remedies

The concepts of market failure and fairness apply in

The experts consider the concept of market failure is appropriate in this context. However, they also state that fairness is also important. One expert added that the notion of fairness is the

this context and are adequate concepts to justify regulatory intervention. overarching principle of competition, data protection, and consumer law. The concepts of value creation and/or distribution, however, are less appropriate in this context, in general.

It is too late for competition law and ex-post measures. One expert concluded that it is already too late for competition law and ex-post measures to solve current problems involving large gatekeeper platforms, because they have already reached a certain size and level of dominance. This expert suggested the following measures:

- For merge control and investigation: Reverse burden of proof.
- Breaking-up large gatekeeper platforms
- Dealing with the issue of data (for instance, stop personalized advertising)

The new regulatory framework and legislation should take on a more holistic view. One expert stressed that it would be a missed opportunity if the new regulatory framework and legislation were to focus only on competition aspects or rely solely on competition economic theories/tools/measures to assess and/or address problems. The new legal framework should take a holistic view of the problems and regulation of large platforms. Therefore, in addition to economic and competitive aspects, social problems must also be taken into account.

The lack of competition can have significant effects across the entire economy. The impact analysis needs to cover more than just competition economics aspects. (Actions of) Large gatekeeper platforms have an impact on a whole range of social factors as well. For instance, during Covid-19 instant messaging, social media, and video conferencing tools became a critical part of consumers' everyday life. Other aspects for impact assessment could be media pluralism and diversity, privacy and data protection, choice, content moderation, digital/tech sovereignty.

Indications and thresholds for intervention. The experts provided different answers with regards to indications and thresholds of large gatekeeper platforms and intervention. One expert ranking of criteria that could be applied to determine large gatekeeper platforms:

- Large user base; enables strong exclusionary network effects (not limited to two-sided markets)
- Accumulation of valuable and diverse information/data; not only the quantity but also the diversity of data is important
- Leveraging data/assets to access new markets
- Lock-in of consumers (network effects/raising costs of switching)
- Capturing large shares of revenues (also: joint dominance; e.g. Google and Facebook on the advertising)

market, Apple and Alphabet on the market for mobile operating systems)

- Geographic coverage (in the EU)
- Availability of alternative services

Another expert added that thresholds should remain very low, in general, since it depends strongly on the market definition applied whether a threshold is met or not. Moreover, markets and market conditions are constantly changing and, over time, criteria or thresholds that are defined very accurately today may have negative consequences in the future by eventually giving power back to large companies. The same holds for very rigid sets of rules.

There is a difference of opinions regarding blacklisting and a case-by-case approach.

While one expert stated that blacklisting of certain conducts (because market and market condition change over time), another suggested that blacklisting is a good approach, especially considering problems associated with self-preferencing and interoperability.

The experts however agreed that a case-by-case approach (takes too long/is too slow) is not a good option to address current problems either. Nonetheless, one expert stated that a constant monitoring of large platforms is also a valid policy measure (preferably in combination with case-by-case evaluation).

Non-legislative means would be affective.

One expert explained that It is too late for Code of Conducts or other non-legislative means. They will not have any effect. A much better approach would be co-regulation (government, actors and unbiased stakeholders).

Data portability and data sharing might not solve a lot of problems.

One expert doubts that giving start-ups access to some data will immediately make them more successful. Slices of data will not help them to function more efficiently. They might not be able to derive value from that data. However, it is a good starting point. Furthermore, data portability will not solve any issues. The general assumption is that data portability might encourage switching. However, in other markets, such as the energy and telecom market, it has already been found that consumers have little interest in switching and saving money.

Another expert stressed that concerns regarding data access and sharing measures for competition, privacy etc. reasons should be addressed in the data act.

Interoperability should be imposed.

Generally, open and interoperable standards can facilitate competition. Interoperability should be imposed. Standards should be set using the existing, well-developed EU technical standards regime. However, one expert also explained that a maximum level of interoperability should not be imposed. Small innovative companies do not always wish to have interoperability with Google, Amazon, Facebook etc.

Today most private companies regulate markets by setting their own standards. That is problematic. Open standards are crucial for healthy competition and creating competition in the first place. An open, fair and independent body that sets standards is needed.

Impact

Without intervention: Large platforms will expand the power, continue swallowing smaller companies and innovation will decrease.

The large gatekeeper platforms will expand their position and emerging Venture Capitals will help small businesses to become large enough to be swallowed. Being swallowed will be their only exit strategy for smaller businesses.

Innovation will slow down significantly in the future. GAFA will be able to roll out their (general purpose) technologies more aggressively. This will be happening at the expense of innovations that make products and services more attractive to consumers.

All of this will result in less diversity in services and products and will be less secure in the long run.

Intervention will have a positive impact on the entire economy.

Effective rules would have an impact across the entire economy – on innovation, social factors, media pluralism and diversity, fundamental rights, privacy etc.

b. Focus groups

At the time of writing, focus groups had been completed with consumers and business users. A third focus group, involving software and app developers, was likely to be scheduled to take place in early/mid-September.

i. Consumers

The Consumer Focus Group took place 2.30pm-4.00pm CET on 14 August 2020. It was held online via Microsoft Teams. The meeting gathered the views of 9 consumers regarding their usage patterns, choice, data privacy and portability in relation to large digital platforms. Focus group participants were recruited from across Europe. They came from different professional backgrounds and presented different Internet habits.

The discussion was based around questions presented during the meeting, which was further stimulated by the interventions of ICF and WIK facilitators. Participants were asked to answer a set of polling questions online during the focus group meeting. The results of the poll also fed into the discussion at the end of the meeting. This document summarises the views expressed by focus group participants during the course of the discussion.

The PowerPoint slides presented during the focus group meeting can be found here:



Platforms with Significant Network Effects Acting as Gatekeeper Impact Assessment support study

Focus group meeting

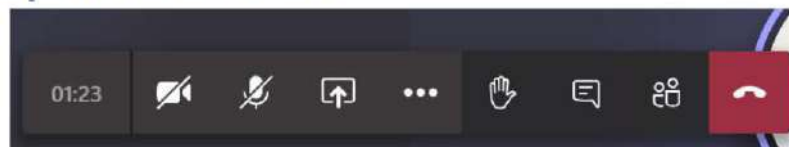


In the Teams Menu bar:

 - to show/hide your webcam and to mute/unmute your microphone

 - Raise your hand if you want to contribute

 - to open the chat box



ICF proprietary and confidential. Do not copy, distribute, or disclose.



General rules

- Strict timekeeping
- During the open discussions, you are invited to speak up via microphone after raising your hand
- Please mute your microphone when not speaking
- The facilitators will try and make sure all organisations get equal speaking time
- If your internet connection drops, please sign in again, using the same link as before



Study background

- The emergence of large platforms such as Google, Amazon, Facebook with significant market power due to massive direct and indirect network effects that underpin their business models.
- Large platforms reducing market entry and innovation, leading to unfairness in B2B relationships and posing challenges to personal data protection.





Study objective

- The Commission is pondering rules to apply to large platforms in the context of the Digital Services Act package to address challenges around competition and innovation posed by large platforms.
- This study aims to contribute Commission's reflection on possible policy options and what their economic, social and environmental impacts would be.



Focus group objective

- Collecting in-depth information on experiences and insights among representatives of homogenous groups: consumers, small businesses, application developers and e-commerce merchants.





Usage patterns

- Why is it that large platforms are so widely used by consumers? What are the advantages of using them?
- How would you rate the quality of service currently offered by large platforms?
- To what extent do you think quality would improve if there were more competition between platforms in digital markets?



Consumer choice

- Do you think large platforms have a positive or negative impact on innovation in digital markets, particularly in relation to consumer choice and service quality?
- Do you believe that large platforms influence your consumers' behaviour and decisions? Do they exert a positive or negative influence?
- Large platforms are known to increasingly bundle different services in one subscription is beneficial for you (e.g. Amazon Prime, includes video and shipping). Do you see this practice as beneficial or detrimental consumers?
- Have you noticed any specific changes with large platforms over time that bother you? (e.g. the platform started to expand its business, the service was able to collect more data, etc.)





Data privacy and portability

- Do you feel that the information you disclose to large platforms is appropriate considering the services you receive from them or does it have some negative implications?
- What do you think of large private platforms managing your access to other services via gatekeeping (e.g. Google Sign-In, Facebook Log-In)? Should there rather be a need for a public digital identity service in order to ensure privacy and security?
- Would you be more likely to switch to another provider if your stored personal data (preferences, ratings and reviews) could be easily transferred to another platform?
- What do you think about large platform ecosystems where various individual services are offered through the sharing of personal data among them? Should this be permitted or prohibited?



Reflection on the way forward

Considering the potential issues explored relating to:

- Usage patterns
- Consumer choice
- Data privacy and portability

How do you think international or national regulatory authorities could address them in practice in future and would you welcome such efforts?

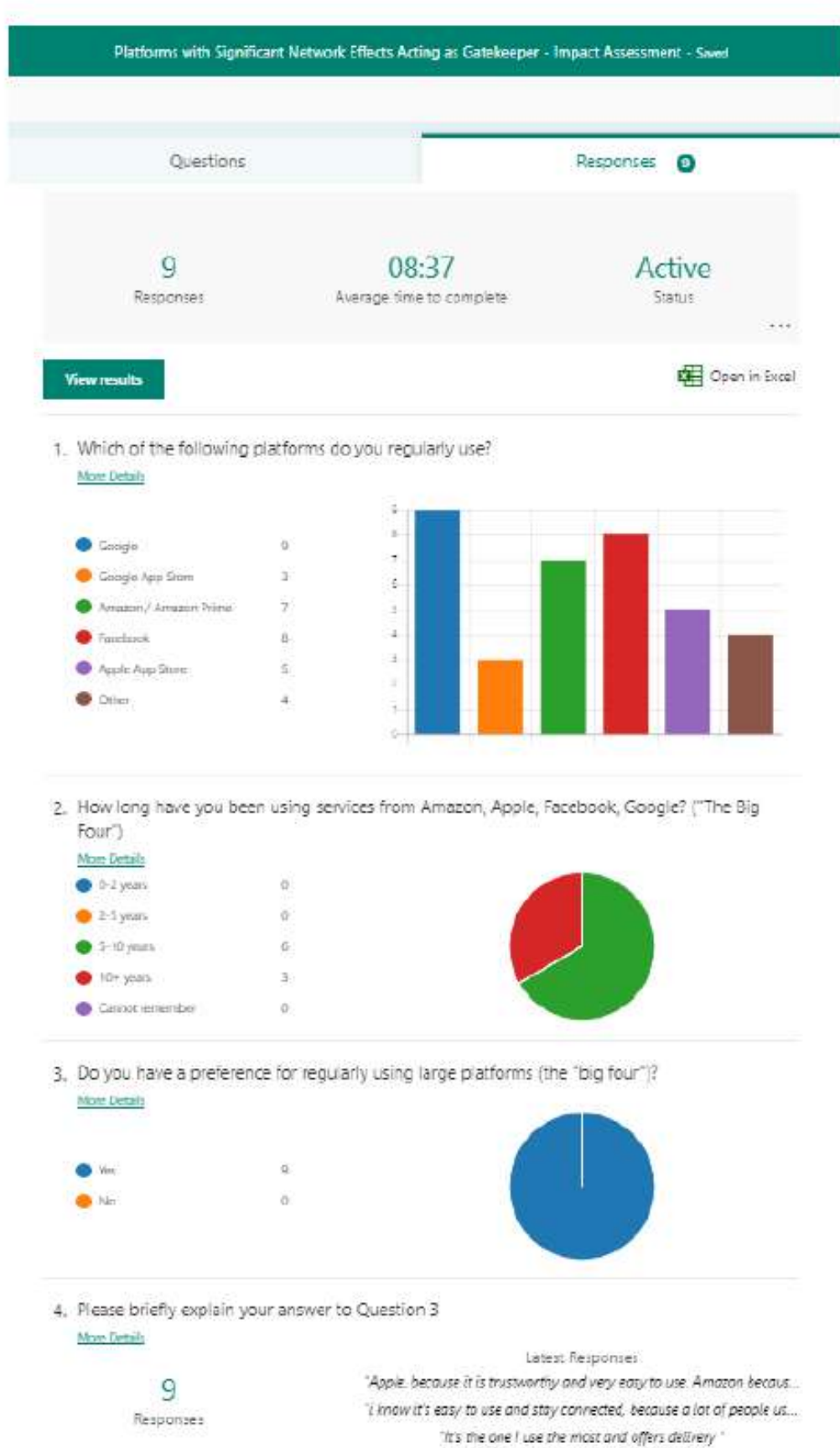




Thank you for your attention!



Results of the online poll/survey carried out during the focus group meeting can be found here:



5. What do you think about downloading apps from platforms other than Google App Store or Apple App Store?

[More Details](#)

8
Responses

Latest Responses

"I don't do it, i was not even aware i could do that on my android."
"I don't know other platforms!"

6. Have you ever decided not to download an app from another provider than Google or Apple because a similar app was already pre-installed on your smart device?

[More Details](#)

Yes	5
No	3
Cannot remember	1



7. To what extent are you favourable towards the idea of downloading apps from a source other than Google App Store or Apple App Store? (1: unfavourable; 5: favourable)

[More Details](#)

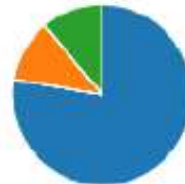
9
Responses

3.56
Average Number

8. Have you ever used digital identity services such as Facebook Log-In and Google Sign-In for accessing other online services?

[More Details](#)

Yes	7
No	1
Cannot remember	1



9. Do you think you have sufficient control over your data and the purpose for which it is used? (1: Not at all; 5: Completely)

[More Details](#)

9
Responses

1.78
Average Number

10. Would you prefer to have a simple, private and meaningful way to control and share your data (e.g. Data wallet)?

[More Details](#)

Yes	9
No	0
Don't know / No opinion	0





Platforms with
Significant Network

Participants

Nine participants from different professional backgrounds (marketing, communications, civil service, policy, accountancy, international relations) shared their views and experiences as consumers.

Usage Patterns

The discussion on usage patterns was prompted by the following questions:

Why is it that large platforms are so widely used by consumers? What are the advantages of using them?

How would you rate the quality of service currently offered by large platforms?

To what extent do you think quality would improve if there were more competition between platforms in digital markets?

Summary of key points raised:

Popularity: large platforms useful for connecting and staying in touch with people.

Convenience: integration with other services or bundling of services, everything in one place; good customer service; improves convenience.

Professionalism: Amazon online shopping renowned for consumer choice, rapidity, and customer service.

- **Participant A.** Main reason: connections because everybody else uses the platforms. It is not really about how good they are, but because everybody else uses them. It is the most common thing to do, so you just follow everybody. The easiest thing to do is just to use the most common platform. Obviously if there was a bit more competition, maybe they would improve their services a little bit as they would be fighting for your attention.
- For example, with Amazon even if there are other options, you know they are so big and it's so easy to find everything there, it's the convenience of the whole service.
- **Participant B.** Amazon has next day delivery (a unique feature) so it's very convenient and you can find everything there. I use Amazon at work when we need items delivered quickly, but when I'm shopping at home and have more time I might use independent providers.
- **Participant C.** For me it is more about integration and ease. For example, Amazon's Alexa app seems to integrate well with other devices and platforms. For me that integration is so key. In terms of how my mobile brand integrates with Amazon, for example, it is very convenient. Integration with other providers (e.g. smart tv, phone provider...). For example, when I log into a new platform, I can just sign-in with my Google or Facebook account, rather than creating another account and sharing my information again. It is about ease, convenience and integration. It suits my lifestyle – I have children and am often busy.

- **Participant D.** It is very easy to subscribe to Amazon. Good quality of customer service in Amazon prime. Every time I had an issue, consumer service worked very well. In terms of other platforms, I find it very easy to use other large platforms.
- **Participant C.** Agree with the good customer service of large platforms. Had a very good experience using the customer service of Apple. I also love using iPhone, very easy to use and always used them.
- **Participant D.** In Greece, Amazon is not so famous because they do not deliver here. So, we use other platforms such as eBay, which has the same philosophy and similar deals. Facebook is very easy to use. From my personal experience I think the problem is that I never read the policies about personal data. A normal consumer does not consider these personal data use, what information do companies like Facebook keep/use?
- **Participant E.** Amazon is always about the price; you can do a search and find the best price in the market. Also allows you to have a good choice of products. They also offer third party shops. Amazon really encompasses all kind of products you are looking for (choice and price key elements).
- Also, using a platform that everybody else uses makes things very easy. For instance, Facebook, when the aim is to connect with others.
- The bigger is the platform, the wider is the range of services you can benefit from. For example, Google, where you can log in and access a suite of services.

Q: Are additional services valued by consumers (e.g. Amazon Video coming together with Amazon Prime subscription)

- **Participant C.** It makes it more valuable. It is a bonus. Example of watching Amazon Prime Video whilst travelling – some TV shows are *only* available on this platform.
- On the other hand, you may be missing other very good products because you are just blinded using the ones coming from larger platforms. Amazon's search function can be poor, and it can be difficult to find what you are after at the right price.

Consumer Choice

The discussion on consumer choice was prompted by the following questions:

Do you think large platforms have a positive or negative impact on innovation in digital markets, particularly in relation to consumer choice and service quality?

Do you believe that large platforms influence your consumers' behaviour and decisions? Do they exert a positive or negative influence?

Large platforms are known to increasingly bundle different services in one subscription is beneficial for you (e.g. Amazon Prime, includes video and shipping). Do you see this practice as beneficial or detrimental consumers?

Have you noticed any specific changes with large platforms over time that bother you? (e.g. the platform started to expand its business, the service was able to collect more data, etc.)

Summary of key points raised:

Trend towards even greater market concentration:

Positives: innovation and practicality – integrated service applications.

Negatives: limits choice and influences consumer behaviour.

- **Participant C.** Large platforms have both a positive and negative impact on innovation in digital markets. If you talk about positive impact, I find Amazon a positive thing for me. It implements Amazon music within the app, within the tv, it integrates all services very well. For me it promotes innovation, for example Amazon Ring (home security and smart home products) has a device that can create noises for you whilst you're away on holiday. People are innovating around Amazon.
- Negative impact. Sometimes when you go onto certain platforms, it creates a microenvironment where you only see discriminated posts/adverts/etc. I think that can narrow people's mind and it can be quite detrimental. I've tried to change settings so I don't get sucked into this bubble, but no matter what I do it always saves my information and it is very frustrating. For me Facebook now is just about connection and network and I don't want to use it for news, but many people only see those news/ recommendations/ads on Facebook and do not use other sources. Although it can have a positive impact, because sometimes I get suggestions to similar brands I haven't heard of but might be interested in. This influences consumer behaviour, but it is also limiting your choice. It dictates what you buy, what you see.
- Third question. Large platforms are bundling with different services, and for me it is a good thing because I have everything in one place.
- Last question. With Google you need to let go of your security to use the product and that is something I'm not willing to give in. I prefer Amazon device where you can change the privacy settings.
- **Participant B.** First question. One of the big impacts you find is that sometimes they are just innovating within their same framework, not really improving consumer experience/welfare.
- **Participant F.** First question. I feel like because Amazon is monopolising the market, innovation is kind of limited in that area, because Amazon is so big it is difficult to imagine an alternative. Large organisations have a business strategy where they aggressively buy up competitors, so it feels like the number and diversity of options is decreasing each year.
- Last question. I do not think I've noticed notifications about changes, but at the same time I don't really think I'm ready to understand those changes.
- **Participant B.** Exactly, even if they notify you (e.g. when Facebook took over Instagram and WhatsApp), what are my options? You don't have a lot of choice regarding data and security unless you just decide to leave the system/platform and it's hard to move everything you got on that platform (e.g. photos, connections, etc.). I definitely think that with a lot of these things, there is less and less market share for new competitors and new innovators.
- **Participant D.** Also, about Facebook, here (Greece) it starts to be obsolete because young people prefer Instagram. These sites are not only for connection between individuals but for companies also ... an image is more powerful to earn your attention than a text ...

- **Participant G.** I think Instagram promotes small businesses and it is a way for them to go from not being too popular to booming. I've seen that a lot in London with restaurants getting publicity, so think it's a way to make small business grow.
- However, Instagram may have a very negative impact, especially on young people. They create expectations people want to follow (e.g. promoting consumerism: young people looking to have products they cannot afford just to impress their network).

Data privacy and portability

The discussion on data privacy and portability was prompted by the following questions:

Do you feel that the information you disclose to large platforms is appropriate considering the services you receive from them or does it have some negative implications?

What do you think of large private platforms managing your access to other services via gatekeeping (e.g. Google Sign-In, Facebook Log-In)? Should there rather be a need for a public digital identity service in order to ensure privacy and security?

Would you be more likely to switch to another provider if your stored personal data (preferences, ratings and reviews) could be easily transferred to another platform?

What do you think about large platform ecosystems where various individual services are offered through the sharing of personal data among them? Should this be permitted or prohibited?

Summary of key points raised:

Transparency issue: security settings are unclear and complicated to users.

Concerns around use of personal data: invasive advertising and 'creepiness' of algorithms.

- **Participant H.** I think these platforms have access to our information anyway (clicks, likes, etc.), and this way we can get a more tailored personal user experience. I prefer platforms managing my access via gatekeeping, it makes logs in much easier, and less time consuming. → **Khadijah** agrees.
- **Participant C.** I filter the security settings, but I actually don't know what they really have about me. And I do not have the time or the knowledge to go through all emails they send to actually know all the information they hold about me. I honestly do not know what they have. I feel I don't have a control over it, and I don't think I ever will.
- I would say we need more transparency but also simplicity so we can have some control. Maybe they intentionally make it more complex, so it is hard to understand.
- **Participant A.** It really seems they do not make it easy for you to read and understand. We receive huge large texts it would take you hours to read and nobody does that. They could make it easier (e.g. with pictures, graphs) to make it more readable so the consumer can know and understand. They are very aware nobody is going to read those large texts.
- I don't always love how much they know about me; I get tailored ads about things I only googled once. But at the same time that also sometimes makes things easier to use – so I'm a bit in the middle.
- **Participant F.** It is a bit creepy that when you have a conversation with someone, two days later you have an ad on Facebook or Instagram about that same thing you spoke about. That is beyond the limit.

- **Participant B.** Agrees with **Participant F.** I do not want them to know about me (reference to Brexit referendum). It gets to a point where it feels very invasive. They have the ability to make your life easier, but the payoff is that they need to know more and more about me. So, I tend not to use a lot these large platforms – I'd rather have conversations with sellers directly in shops.
- **Participant C.** I always use fake profiles, change names etc, so that any data out there on me is not really true. I create a different profile because I do not want them to know about me – that's why perhaps I don't see it that dangerous. I don't see it as a 'real profile', and I only use sites I trust.
- **Participant D.** As I mentioned before, I didn't read these large texts with small letters about the policies for the personal data and of course all of those emails with additional rules ... (bad for me as a consumer because I don't know for what exactly I agree ...)
- I think that the benefits are useful for the user (less time, common products etc) but also for social research maybe, if this need of research arise.

Reflection on the way forward

The participants were asked whether international or national regulatory authorities could address in future the potential issues explored during the discussions and whether they would welcome such efforts.

There was **overall agreement** that **better safeguarding of personal data is needed** and that delegating this responsibility to **national or international organisations** should be considered.

- **Participant B.** Making sure that the playing field is level/fair → it is an area that public policy should definitely take care of. It doesn't just impact the 'big four' and consumers, it also affects other companies. If you are looking at the impacts of what's already happening (competition, privacy, etc), small businesses should be able to innovate and have fair conditions to do that.
- **Participant H.** I think there should be a central data collecting authority on the national or the EU level, that would store our data and would give access to platforms but with limitations.
- For instance, in Belgium there is an application that stores your personal data, and you can use it to log in to several public service websites, or banking matters. I think it is very easy and convenient to use, and it would be nice to have such an application for a more general use.
- **Participant D.** I agree that it is very useful, and I believe that whether we like it or not, everything will be transferred online ... the important thing until then is to be ready as a community for that and to find our balance in this new field ...International authorities, I think, will be more efficient... [in addressing this challenge, compared to national].
- **Participant C.** In the public service we have what we call "data guardians" so every time we want to share data, we need to go through them. So, it would be good to have that kind of guardian figure that supervises the use of data. It is not just about the type of information that is kept, but about the length this information is being kept (if you write something years ago, it may no longer accurately represent you and may be harmful). If there is a "data guardian", that would build confidence amongst consumers because the consumer would know they can trust that data guardian. That would also help innovation, because consumers would

feel comfortable transferring their data to new businesses – the data guardian would be there and can be trusted.

- **Participant A.** Young generation uses social media a lot, and there are organisations helping and advising young people on how to use social media in a safe and informed way (e.g. 11 year olds with iPhones may not understand implications of what they click online). It's really important that they try to safeguard us a little bit more, because we are making choices out of a mindset. We do not have control over anything, so we just make choices without being totally informed. So, it would be really good if there is someone that can pay attention to these issues for us.
- **Participant D.** Also, I have concerns about location of data and not for my preferences about products or maybe the access that any app asks me about my photos or contacts ...
- **Discussion of the survey results**
- **Q: How much do you think the big apps know about you without being an active user? Example: you do not have an iPhone, but how much do you think Apple knows about you?**
- **Participant A.** I know a lot of websites are linked to Facebook, Amazon, Instagram, etc. so whenever you are using this kind of website they have a little tiny logo of Facebook for example that they can also use to get your information on your Internet usage/habit. That is something I have heard before.
- **Participant B.** I guess another source are cookies. For example, if you are reading an article which has affiliate links through Amazon, that behaviour may be kept by them. I do not really know if that is a thing and I do not understand exactly the mechanism.
- **Participant C.** It is not surprising these large platforms use other sources to gather information.
- **Participant E.** Internet is a free place. Subscribing to Facebook is free but entails your data being shared.
- **Comment clarifying Q above. Control over your data is only possible when you sign up to a service. However, sometimes providers have data (or 'shadow profiles') on people not using the service (e.g. WhatsApp has the list of contacts of its users, even if these contacts don't have WhatsApp – this can be later used on Facebook). Also internet service providers may access/sell data.**
- **Participant C.** I never thought about it, but it really bothers me. I'm not sure how you'd address this issue – how can we be protected if we are giving consent?
- **Participant D.** I think it is not easy to do something about it... Consumers are not protected/ do not have the tools to fight against that.
- **Closing Remarks**
- **ICF.** There is a trade-off between convenience and privacy/data protection. We are very happy to use these gatekeeper services, but we are always a bit worried about how our data are stored/how these platforms exploit the data they have.
- Regarding the whole innovation debate, it is perhaps less relevant for consumers, more for SMEs. Consumers seem to be very happy with the quality of the existing large platforms – otherwise these wouldn't be so large.

- **Participant C.** I think data collection is still very important – thinking about what dangerous individuals/groups do on the Internet. It is important to collect their data in this sense (e.g. police monitoring suspicious activity). We need a balance.

ii. Service and software developers

The Service and Software Developers Focus Group took place 2.00pm-3.30pm CET on 15 September 2020. It was held online via Microsoft Teams. The meeting gathered the views of six service and software developers regarding competition and innovation, data management and data protection.

The discussion was based around questions presented during the meeting, which was further stimulated by the interventions of ICF and WIK facilitators. This document summarises the views expressed by focus group participants during the course of the discussion.

Participants were asked to answer a set of polling questions online during the focus group meeting, for which five of the six participants responded.

There was a broad consensus among the five developers taking part in the poll/survey that large platforms should not be allowed to influence the pricing and advertising of their products or services. Similarly, most responding developers felt that they do not have enough control over the data on their customers on large platforms.

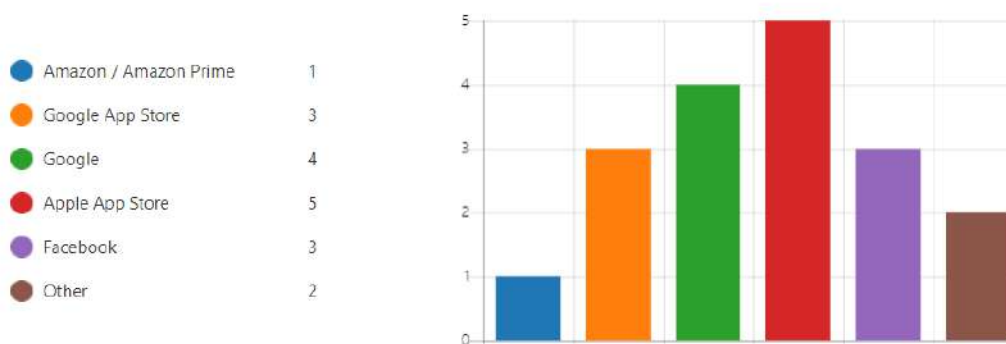
The full results of the online poll/survey carried out during the focus group meeting can be found here:

Survey Results – service and software developers; 15 September



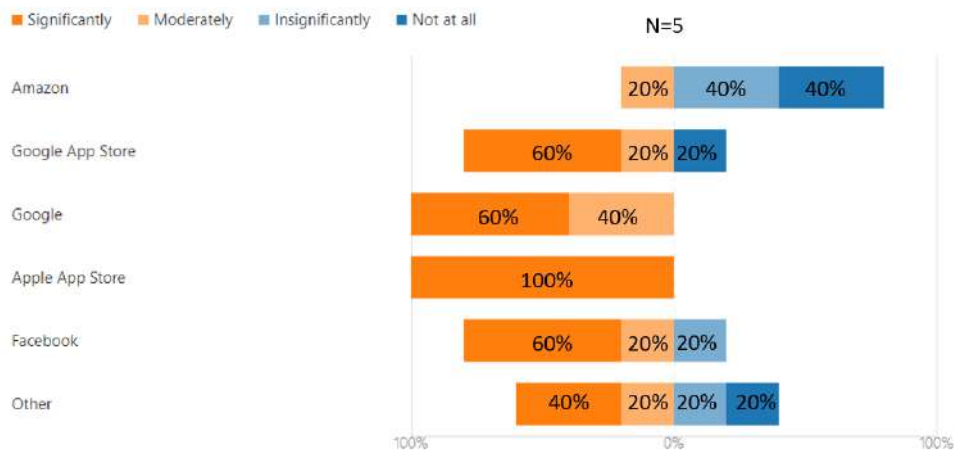
1. Through which channels do you promote your products and/or services and reach your customers?

[More Details](#)



2. To what extent do you depend on the following platforms for sales and marketing?

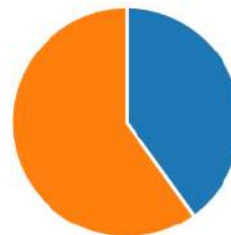
[More Details](#)



3. Have you ever thought about switching away from large platforms (Amazon, Google, Facebook, Apple) for your sales and marketing activities?

[More Details](#)

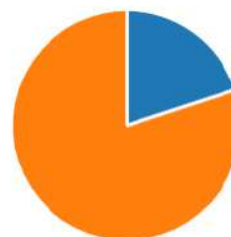
● Yes	2
● No	3



4. Do you think large platform providers should be allowed to influence the pricing and advertising of your products/services on their platforms?

[More Details](#)

● Yes	1
● No	4



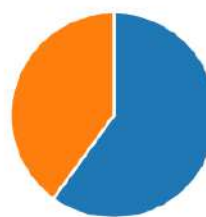
5. Please briefly explain your answer to Question 4

5 Responses

ID ↑	Name	Responses
1	anonymous	I would not switch but supplement with potential other platforms
2	anonymous	Force no, influence: in a very light way, for example by making promotional options available.
3	anonymous	Pricing should be in control of the developer up to the cents
4	anonymous	They should not have that power!
5	anonymous	Large platform providers influence at the moment the pricing and advertising and also monopolize the payment methods and the possibility to publish app.

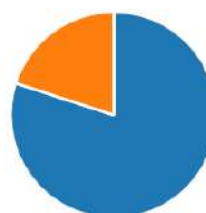
6. Do you think large platforms steer your customers towards their own products and services?

[More Details](#)



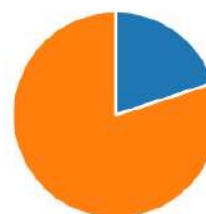
7. Do you think it is fair that third-party companies do not get access to certain features, services and data of large platform providers?

[More Details](#)



8. Do you get sufficient access to and control over the data of your customers via large platforms?

[More Details](#)



Participants

Six participants shared their views and experiences as service and software developers. Focus group participants were recruited from The App Association, which represents

European app makers in Brussels and across Europe. The participants were founders, CEOs and COOs, based in several different European countries and operating in fields including health and gaming.

Competition and innovation

The discussion on competition and innovation was prompted by the following questions:

What are the advantages and issues related to large platforms for business users?

How would you rate the quality of service currently offered by large platforms?

To what extent do you think quality would improve if there were more competition between platforms in digital markets?

Do you think large platforms have a positive or negative impact on innovation in digital markets?

Do you think bundling of different services from large platform providers is impacting your business? If so, how?

Do you think that the fees charged by large platforms (e.g. for advertising, transactions, access) take a cut of your revenue compared to the service and exposure that you receive via the platform? What do think would be a fair fee for the use of these platforms for your business purposes?

Summary of key points raised:

- Slow approval process for apps which lacks transparency.
- Little choice and higher fixed costs due to the limited number of platforms and bundling of services.
- Platforms have an editorial role, controlling the content customers see. Sometimes this is helpful but there is also a risk discoverability is buried and/or paying competitors are promoted.
-
- **Participant A.** Our app was blocked on the Apple Store for almost two weeks under the blanket of 'false information' when the app had an update related to Covid-19. There were good intentions, but it resulted in a lot of back and forth between Apple and us. The new functionality of our app, which customers relied on, was delayed as a result. This was a significant problem and clearly unfair. We did not create an app for Covid-19, we have been on the market for years and Apple should know we are a serious medical application. There are fewer constraints on the Android platform.
- The App Store is also the only way to install apps on an iPhone. There are benefits (e.g. streamlined payment options), but it means there is no choice. In comparison, for Android, Google have a large Play Store, but developers can still choose to go via a different route to distribute apps.
- **Participant B.** Similarly, we find approval from Apple can take several weeks as we are in the child/family category. However, it does vary depending on the app. For our account it used to take seven days for updates to be approved, but now we have so many downloads that it has changed, and it only takes 24 hours.
- **Participant C.** It is important that developers (big or small) know the approval time to expect for updates. At the moment it's unpredictable and makes it difficult to plan business. We work with lots of start-ups where timing to market can be particularly important.

- It's also really difficult to have an independent third-party payment method in an app. You have to use the standard platform payment.
- **Participant F.** There's a lack of transparency in the way apps are promoted by large platforms. If you are rejected by Apple often you don't know why and it is up to you to figure it out. It could be down to what category of game/app you are registered as or the guidelines for a particular age group. You don't have a direct contact to speak to about this, so it can be an exhaustive process to resolve it and challenging if you are a small team.
- **Participant D.** Apple and Google have totally different user algorithms, promoting what people play with and use. For example, on the App Store there are featured games, and the Apple selection team play an editorial role in putting these forward.
- If you are trying to find the most relevant/downloaded content you have to search deep to get it. It wasn't like this a few years ago – the top ten downloads were easier to find. Nowadays discoverability is buried, and Apple has more control over who thrives.
- For the end consumer sometimes, it is good because they are being presented with 'quality' content – but it's ultimately Apple that choose the quality content and it's not clear what criteria they use.
- With Google they have a discoverability algorithm which works on the basis of KPIs (e.g. number of downloads, click rates, ratings). It's still not completely transparent but it feels quite fair – if you have a good product then the algorithm will push it forward.
- With Apple it's quite strange. Now if you search for a brand on the App Store it might not show the brand first, it might redirect you to another app which is paying a fee to Apple for that spot. It means Apple are already taking a cut. Right now, you might be in second position, but if it decreases to third or fourth position this will reduce organic downloads further.
- Sometimes platforms suggest similar apps you might like based on your taste. For us this is beneficial – we get lots of people finding us through this channel.
- **Participant E.** I second this. If you type in my brand name to the App Store, then it displays a competitor. I don't think it's right – the App Store makes money by selling the position to a competitor. Where there are general search terms I think it's OK, but when you are specifically searching for a brand it's not fair. A similar thing happens when people use Google search – adverts will be displayed. I don't think it happens on the Google Play store.
- I feel if Apple or Google brings a customer to my app then they can take commission, but if I bring the customer (through my website etc.) then I should keep it.
- **Participant D.** I agree with that. We have to pay a lot of people in order to make money. Sometimes we are just searching to breakeven, rather than making revenue on a user. It's strange.
- An example customer journey would be as follows. We create adverts which we pay to put on Facebook (in USA up to five euros). If we are successful in getting a new customer, Apple takes a cut of their spending (up to 30%). They take the same cut regardless of how we've found the customer (e.g. through our website, via Facebook).

- On the Google Play store you can see precisely where users come from. There is some information about this on the App Store too, but it is more general.
- **Participant C.** If you run a Facebook campaign and use Pixel (a tool to measure customer engagement with advertising) then you know the whole customer journey. It helps you track and quantify the customers.
- Currently 30% of spend goes to Apple. You are getting some services, but these are imposed (e.g. you can't use different payment systems, you have to use their log in procedures). Could these costs be split out? Then if we choose to develop services ourselves or use other services we would pay Apple less.
- **Participant D.** I agree. We should let developers choose the services they want to use.
- **Participant B.** The cost varies by country. For me I pay over 40% because of VAT.
- **Participant D.** It's not just Apple. On many platforms we don't know what we are paying for. There is an issue of transparency around fees charged.
- **Participant A.** The issue is also freedom of choice. I can't decide what services I use and pay for. If I only want users to be able to download an app then I should only pay 2%.
- A differentiated fee structure seems fairer, based on which services are wanted and how the customer journey originated.
- **Participant C.** This is the bundling issue. There is one offer, take it or leave it. Developers clearly have no control over this.
- **Participant F.** Before Apple and Google joined this market there was a carrier that would take 70% or 80%. So actually, it is an improvement. The content and technology are also higher quality today than before.
- **Participant D.** I agree the world was not great before, today is better, but in the future the % commission needs to be even less. Previously there was more value to having someone provide phone payment, as consumers were wary of sharing card details on their phone. Now no one is scared, there are lots of options out there (e.g. PayPal). So, we all value these services way less than 10 years ago. The competition can provide these services for 0.5%, so currently it feels expensive and unfair.
- **Participant F.** When Apple and Google came in, they disrupted the market. Some of the Chinese companies may be similarly disruptive now? Maybe the 30% will be reduced due to competition. New platforms are willing to go to 15%.
- **Participant A.** Apple does bring benefits to us, but there are some elements that are unfair such as bundling, lack of transparency, the fact there is just one App Store which limits consumer choice. Apple needs to tackle these problems.
- **Participant D.** People making hardware (e.g. Nintendo, Sony) used to control the software, they would sell consoles at a loss and make it up by having high fees on the platform. Today there is a similar strategy, they have control over hardware and software and make lots of profit. It feels unbalanced.

Data management

The discussion on data management was prompted by the following questions:

Do you implement digital identity services for authorisation and log ins such as Facebook Log-In and Google Sign-In in your products and services? Do you think the providers of these log-in functionalities benefit more from these services than your business?

Should there rather be a need for a public digital identity service in order to ensure fairer competition on digital markets?

Would your business be more successful if your products and services were interoperable with the products and services of large platform providers?

Is the lack of data sharing/portability solutions between service providers a problem for your service provision? Do you think more customers would switch to your service if data could be easily transferred to from large platforms?

Summary of key points raised:

- Lack of data portability and interoperability creates inertia and limits competition and innovation, but standardising data would be difficult.
- A public digital identity service would create more trust and 'level the playing field', however consideration is needed regarding its implementation.
- **Participant D.** I think customers don't easily switch from Apple or Google because they are scared of losing photos, connections etc. We shouldn't underestimate this behaviour. It creates inertia. It's like on Facebook there is no competition because all the information cannot be transferred. It's a data portability question.
- **Participant A.** In terms of having a public digital identity, I think a large number of users in Europe would choose a public service option over Facebook or Google because they'd have more trust. It would help reduce the power of private companies in terms of log in and single sign in. But what would be the business model?
- Take a look at itsme. It's a semi-private Belgian initiative from banks and telephone operators. It's extremely easy to use with high security compared to others due to a strong authenticator.
- Something like this on a European level would be strong. Currently if you contribute to EU research projects there is a small application that authenticates you as a European citizen, so there is some infrastructure already in place. Expanding this would be a very good idea to build trust and level the playing field.
- There is an EU login which allows single sign on with secure authentication for mobile platforms. This could be a great and safe competitor to Google, Apple, Facebook single sign on. It would reduce the grip of these actors on the market and bring trust and fairness to the internet.
- **Participant C.** I think there is a point around dissemination. If it's top down it won't be used. It is necessary to work with mobile providers and ask them to use the public identity system to access the mobile. Otherwise the cost of disseminating this solution will be so high that the project will fail.
- **Participant A.** Some promotion would be needed that's true. You could also rely on the app developers to take it up though. We are a medical developer and don't want to use private companies like Apple and Facebook. If there was an independent EU alternative, we would make the effort to use it. It could grow through word of mouth. It would reduce the grip of private companies.

- **Participant D.** In France we have **Mobile Connect – Self Care**. It is linked with Orange, I thought it was state backed.
- **Participant E.** I think that for some data (e.g. medical) interoperability is important. For other data (e.g. social media) people are willing to switch quickly and leave data behind (though the network effect is still present).
- **Participant A.** It would be helpful if you could download your data from Facebook and then upload it to a new social media platform. To do this you would need to standardise data for European citizens in a particular format (e.g. uniform tags in Excel) to make it portable. This would create opportunities for competition and innovation, but in practice it's difficult to do.

Data protection

The discussion on data protection was prompted by the following questions:

Do you feel that the information your customers disclose on the large platforms benefits your business or does it have some negative implications?

What do you think about large platforms bundling various individual services, and sharing data between services? Should this be permitted or prohibited?

What do large platforms mean for your business model in the long-term?

Summary of key points raised:

- There are differing levels of trust in platforms' approach to privacy.
- Interoperability brings its own privacy concerns.

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- **Participant E.** I feel uncomfortable with these platforms gathering information about my users (children) to build profiles. I make a pledge to my customers that I'll preserve their privacy, so if a third party is handling data then I have to trust them. With Apple and to a lesser extent Google I have that trust, but I have less trust with Facebook when it comes to privacy.
- My understanding is that platforms receive data including customers' email and use of the app. Once they have this information they can combine it with other data they already have. This is valuable to them.
- **Participant E.** In the early days, apps abused data. Now phone operating systems have alerts to prompt you about permissions.
- **Participant C.** For interoperability you need to have the same rights when it comes to data. In practice on WhatsApp the conditions (e.g. servers used, algorithms in place) are different to Facebook.
- **Participant E.** It would be complicated if people began importing their own data to platforms. In doing so they are also sharing information about other people and affecting their privacy.

Reflection on the way forward

The discussion on ways forward was prompted by the following questions:

Considering the issues discussed, how do you think international or national regulatory authorities could address them in practice in future and would you welcome such efforts?

Are you in favour of stricter regulation of large digital platform providers? Do you think there should be a one-size-fits-all approach or a case-specific approach?

There was **acknowledgement that regulating large platforms would be challenging** due to their global nature and the fast pace of change. If effective, it was felt regulations could **bring benefits to service and software developers as well as consumers**.

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- **Participant F.** Europe and the Commission are speaking up about companies that do not reside in Europe. It is harder to regulate them. Maybe the Commission should incentivise its own major companies within Europe that it could regulate more closely.
- At the moment, whether it's hard or soft regulations (e.g. behavioural guidelines), it's hard to pull in the likes of Google, Apple and Facebook.
- **Participant A.** I think there is more hope. For example, GDPR has been implemented. Initially companies were against it, but then they saw it as an advantage to be GDPR compliant. I've been surprised at how well it's worked. Europe has more power than we believe. With the California Privacy Act they are also following Europe's lead.
- **Participant F.** I agree. We are 700 or 800 million people. We are bigger than the USA. But we are still up against it. For instance, with GDPR, it remains an issue. Consumers are accepting 12 pages of GDPR information (most often without reading the terms and conditions), but are platforms actually compliant?
- **Participant E.** I agree GDPR is successful. But companies like Apple and Facebook are so big that they can benefit from GDPR and the fact that small organisations cannot share information, as they have lots of information already. These large companies find ways of making regulations benefit them.
- **Participant F.** These companies have grown without regulations in place. That's why they are so big.
- **Participant E.** It would be ironic if European regulations enable the replacement of US companies by Chinese companies.
- **Participant D.** I agree the big companies will try and take advantage of regulations. But it's important because the EU has the best interests of citizens in mind, whereas other people prioritise profit.
- **Participant E.** I think the way people interact with and trust apps is changing at a fast pace. The world is very different to when I first entered the market. Previously the App Store just had paid and free apps, now it's common for people to have monthly subscriptions and in China micropayments are becoming more common. Regulating something that changes so quickly is very difficult. The speed of governments is slower than technology.
- **Participant A.** It's still better than nothing to have some regulation.
- My conclusions are that the EU should offer a free and public single sign on system; they should impose Apple to allow other app stores (like Google on Android) and they should impose Apple and Google to unbundle their services and prices accordingly.

iii. Businesses

The Business Users Focus Group took place 2.30pm-4.00pm CET on 28 August 2020. It was held online via Microsoft Teams. The meeting gathered the views of 3 representative organisations of small businesses on issues such as competition and innovation, data management and data protection.

The discussion was based around questions presented during the meeting, which was further stimulated by the interventions of ICF and WIK facilitators.

Competition and innovation

4. What are the advantages and issues related to large platforms for business users?
5. How would you rate the quality of service currently offered by large platforms?
6. To what extent do you think quality would improve if there were more competition between platforms in digital markets?
7. Do you think large platforms have a positive or negative impact on innovation in digital markets?
8. Do you think bundling of different services from large platform providers is impacting your business? If so, how?
9. Do you think that the fees charged by large platforms (e.g. for advertising, transactions, access) are fair compared to the services and exposure that you receive via the platform?

Definitions: 'Large' vs. 'Dominant'

Initially, the discussion focused on what participants considered to be very broad definitions concerning what constitutes a 'large platform' or a 'gatekeeper' company. These unclear definitions can result in ambiguity over which companies would be targeted by further legislation.

More emphasis on 'dominant' platforms, rather than 'large platforms', could be more fruitful. This can also be done by updating existing competition laws.

Market definition in this context should focus on what constitutes a 'dominant' player or 'gatekeeper'.

Certain large platforms have been helpful for SMEs and start-ups, as a viable way to sell products and services and to reach customers.

Marketplace pressures

Pressure from online marketplaces on the retail sector has led to further innovation, especially for traditional retailers.

Currently, more retailers are offering multichannel offline and online services. The COVID-19 crisis has led to an acceleration in e-commerce due to lockdown measures. This has made even more prominent the gatekeeper dimension of some of these platforms as smaller companies/retailers who seek to make/increase use of online channels to market find a lack of substitutes to the larger online platforms.

Scope of the Digital Services Act (DSA)

An important dimension of the discussion was the types of services or products consumers are buying via online platforms.

For some products and services, we see that the market share of some of these large platforms acting as gatekeepers is and will continue to be unavoidably significant. Perhaps this is a more helpful way to identify the scope for the DSA.

Multi-homing and the consumer journey

Consumers use both online and offline channels interchangeably when shopping for products and services.

When determining whether a platform/company is a 'gatekeeper', the extent to which businesses can reach consumers through other channels should be considered when defining the relevant market. In relation to the retail sector it was added that online selling accounts for 10-20% within which platforms only represents a small share. Important to note when talking about 'gatekeeping'.

Relevant resources/ legislation

Participants identified specific resources/legislation that is relevant when considering the issues above, including:

- Platform observatory notes should be reflected and the Observatory reports from the offline retail sector.
- This work also relates to the Unfair Trading Practices Regulation.
- Behavioural study on the digitalisation of the marketing and distance selling of retail financial services by DG JUST of the European Commission.

Data management

1. Do you implement digital identity services for authorisation and log ins such as Facebook Log-In and Google Sign-In in your products and services? Do you think the providers of these log-in functionalities benefit more from these services than your business?
2. Should there rather be a need for a public digital identity service to ensure fairer competition on digital markets?
3. Would your business be more successful if your products and services were interoperable with the products and services of large platform providers?

E-privacy

The e-privacy regulation, which is currently under review, makes it difficult for small businesses to use cookies and collect data on customers which gives an advantage to large companies that can still collect data on their browsers through log-in systems.

Interoperability

It would be useful if interoperability requirements were established for major actors and big platforms to avoid anticompetitive behaviours. This could be particularly helpful for SMEs.

Data protection

1. Do you feel that the information your customers disclose on the large platforms benefits your business or does it have some negative implications?

2. What do you think about large platforms bundling various individual services, and sharing data between services? Should this be permitted or prohibited?
3. What do large platforms mean for your business model in the long-term?

Regulatory interventions

A significant amount of the products sold on Amazon are from Amazon itself. Amazon can identify opportunities from large amounts of data they have collected and create niche products based on data that other competitors do not have.

However, while data is important for business development online and offline, we need to be careful with regulation in this area.

Data can be shared on a voluntary basis unless a market failure is identified in a specific market.

Blanket horizontal data sharing obligations can be dangerous and can stifle innovation.

Data analysis is a service that is not new and exists offline as well.

Self-preferencing

Self-preferencing restrictions applied to large actors can facilitate competition from smaller businesses and platforms.

Self-preferencing can also lead to significant efficiencies for consumers. However, it can be a struggle for smaller retailers.

Existing legislation vs. new legislation

Concerns were expressed over whether a completely new instrument is necessary to deal with the issues of 'gatekeeping' from large platforms.

More evidence is needed to determine whether there is a need for ex-ante regulation for large online gatekeeping platforms.

Many of these concerns can be addressed by existing competition law which is up for review to be updated to the digital world.

Perhaps, a case-by-case analysis, and an update of existing legislation could be more impactful.

Regulatory Authorities

1. Considering the issues discussed, how do you think international or national regulatory authorities could address them in practice in future and would you welcome such efforts?

Good practices

In the UK there is a grocery code adjudicator that regulates the way that large retailers treat suppliers.

Issues with third country sellers in the EU marketplace

EU regulation may be needed as currently they do not apply to third country companies using large platforms to sell to EU consumers. There is an enforcement gap for third party sellers from third countries in the EU marketplace, that are not subject to the EU

consumer laws, product safety standards or VAT rules. This undermines competition law and is unfair to compliant companies.

Brand Exclusivity

There are certain limitations faced by retail SMEs, creating market distortion. Brands restrict which platforms their products can be sold on to maintain exclusivity, and this can stifle smaller companies and platforms (e.g. NIKE sells directly itself on Amazon, but resellers not allowed to sell on Amazon but only on their own websites).

c. Regulatory and competition authorities

i. BEREC⁹³⁷

Engagement with online platforms

Identification of unfair practices with respect to digital platforms (DPs) BEREC identifies harmful practices with negative consequences on competition, innovation, and consumers' choice. BEREC's list of conducts included exclusionary (e.g. self-preferencing or preferencing third party services, unjustified denial of access to a platform/functionalities/data, imposing exclusionary terms and conditions, unjustified refusal of proportionate interoperability, etc.) and exploitative conducts (e.g. imposing unreasonable terms and conditions, gathering and combing end-user data without consent etc.) and other issues related to transparency.

BEREC recognize the need for an ex-ante regulatory framework. As some of the concerns identified by BEREC are due to structural features (in particular control over a digital bottleneck and/or key inputs/facilities) that provide DPs with Significant Intermediation Power (SIP), these concerns may be according to BEREC best addressed by an ex-ante regulatory framework. Furthermore, the difficulties faced by applying the current ex-post analytical framework and enforcement tool is also a reason why an "ex-ante intervention, complementing the current ex post intervention, appears to be more efficient for consistently solving competition problems in fast-moving digital environments."⁹³⁸

BEREC proposed identification processes of digital platforms with significant intermediation power (SIP). BEREC distinguishes between two processes – the direct process and the optional process. For the direct process, BEREC recommends to first identify "areas of business" (AoB) (e.g. app stores, online search etc.) These AoB would be characterised by features like strong direct and indirect network effects, barriers to entry and expansion, significant economies of scale and scope, and high switching costs. The Identification of DPs with SIP would be based on a predefined set of structural and specific criteria which include

⁹³⁷ Section based on BEREC's response to the Public Consultations on the Digital Services Act Package and the New Competition Tool (https://berec.europa.eu/eng/document_register/subject_matter/berec/others/9411-berec-response-to-the-public-consultation-on-the-digital-services-act-package-and-the-new-competition-tool)

⁹³⁸ BEREC's response to the Public Consultations on the Digital Services Act Package and the New Competition Tool (https://berec.europa.eu/eng/document_register/subject_matter/berec/others/9411-berec-response-to-the-public-consultation-on-the-digital-services-act-package-and-the-new-competition-tool), p.4.f.

control over a digital bottleneck, and/or being an unavoidable trading partner (e.g. control users' access to key inputs/assets and/or services/goods/content), strong financial resources and/or easy or privileged access to capital markets, and being part of ecosystem and having the ability to leverage power onto other business areas. Finally, reasonable and easily-observable absolute thresholds will be defined for each AoB. When met, the DPs are legally presumed to have SIP.

The optional process would be triggered if platforms raise problems and/or present a combination of relevant structural and specific feature, but do not meet predefined thresholds and still be able to exercise SIP in specific businesses they are active in. In these cases the “competent body may conduct individual SIP assessments ex officio or intervene based on complaints.”⁹³⁹

BEREC also proposes that a list of AoBs, the criteria applied to assess SIP and the threshold should be defined in (an) EU-level act(s) and regularly revised.

BEREC proposed a governance model that consists of different levels.

With regards to the coordination between the different authorities involved in the regulation of digital platforms with SIP, BEREC proposed a model consisting of different levels.

- A EU Regulatory Body (e.g. the European Commission) supported by an Advisory Board composed by National Regulatory Bodies would be responsible for cases with respect to DPs operating in multiple countries at a pan-EU scale:
- Joint Teams of the concerned National Regulatory Bodies teams for platforms operating in a few Member States would be responsible for cases with respect to DPs operating in a few Member States:
- National Regulatory Bodies would be responsible for cases with respect to DPs operating in only one Member state.

Potential options for regulatory initiatives at EU level

BEREC oppose horizontal measures

BEREC is in favour of an ex-ante regulatory framework, but stresses that the interventions should not be “aimed at regulating all DPs, nor the internet as a whole, but at tackling specific concerns raised by DPs with SIP, in order to ensure that competition and innovation are encouraged, that end-users' rights are protected and that the digital environment is open and competitive.”⁹⁴⁰ BEREC recommends an asymmetric ex-ante regulation framework.

⁹³⁹ BEREC's response to the Public Consultations on the Digital Services Act Package and the New Competition Tool (https://berec.europa.eu/eng/document_register/subject_matter/berec/others/9411-berec-response-to-the-public-consultation-on-the-digital-services-act-package-and-the-new-competition-tool), p.5.

⁹⁴⁰ BEREC's response to the Public Consultations on the Digital Services Act Package and the New Competition Tool (https://berec.europa.eu/eng/document_register/subject_matter/berec/others/9411-berec-response-to-the-public-consultation-on-the-digital-services-act-package-and-the-new-competition-tool), p.3.

Elements of the new regulatory toolbox

BEREC proposes to deploy general principle-based obligations and prohibitions (e.g. transparency, non-discrimination), as well as case-by-case remedies. Principle-based obligation and prohibitions would be applied to all DPs with SIP, but may need to be adjusted e.g. for different areas of business. Remedies should be tailored.

ii. Ministries

Engagement with online platforms

Ministries have identified issues in relation to large online platforms.

According to the Dutch Ministry of Economic Affairs and Climate Policy, some general issues related to large online platforms include:

- the risk of entrenched dominance, because of winner takes all/most market dynamics that create an entry barrier (network effects reinforced by data collection, economies of scale and scope);
- some platforms having a gatekeeping position, which implies both incontestability and dependence of its users (unavoidability);
- leveraging strategies;
- ecosystem formation and lock-in (both consumers and business users);
- unreasonable access and switching conditions imposed by gatekeeper platforms.

In addition, during the interview with the organisation Headquarters for Digital Market Competition in Japan which is composed of representatives of the Ministry of Economy, Trade and Industry (METI), the Japan Fair Trade Commission (JFTC) and the Ministry of Internal Affairs and Communications (MIC) the JFTC, in particular, raised concerns regarding practices applied by these platforms in relation to their business users:

- unilateral changes of terms and conditions;
- refusing access to the platform for app developers competing with the platform (in the case of app stores);
- using business users' data for the own sake of the platform;
- requiring business users to use certain services (e.g. payment) provided by the platform, in exchange of using the platform;
- MFN clauses requesting business users not to use other platforms or not to offer their goods and services at better conditions through other platforms

Recognition of regulatory gap concerning conducts by powerful online platforms.

The Dutch Ministry of Economic Affairs and Climate Policy as well as the Headquarters for Digital Market Competition recognized a regulatory gaps concerning conducts by powerful online platforms which harm dependent businesses, impede choice and innovation. In general the Dutch Ministry of Economic Affairs and Climate Policy as well as the Headquarters for Digital Market Competition stated that ex-post application on competition law is not efficient, especially in terms of speed of enforcement. The Dutch Ministry of Economic Affairs and Climate Policy also

added that the ex-post application of Article 102 TFEU is also inefficient in terms of its objective (to address abuses of dominance with the assumption that markets will become contestable over time). The Dutch Ministry of Economic Affairs and Climate Policy advocates an authority at the EU level that is able to take action against specific gatekeeper platforms without practices having occurred that constitute an abuse of dominance under Article 102 TFEU.

The Japanese Cabinet proposed the Bill for the Act on Improving Transparency and Fairness of Digital Platforms (TFA) that was passed by Parliament on 27 May 2020 but have not yet entered into application. The TFA defines digital platforms very broadly. It covers digital platforms that operate in multi-sided markets and benefit from network effects. As a first step, the Cabinet plans that the TFA applies to certain large marketplaces and app stores. The designation will be made according to criteria and thresholds yet to be determined by the Cabinet. The Cabinet has discretion to change the criteria (e.g. total sales, number of users, number of downloads), as well as the thresholds. The TFA is a principle-based regulation that does not contain overly prescriptive rules, as otherwise innovation could be harmed. It does not blacklist certain practices, nor prohibits any conducts. It rather establishes transparency requirements, which will allow the Cabinet or third party experts to review the conducts of online platforms based on the information they have disclosed. The TFA obliges the designated platforms to submit an annual report to the Minister of METI every year.

Potential options for regulatory initiatives at EU level

The application of horizontal measures is not supported

The Dutch Ministry of Economic Affairs and Climate Policy explained that it should be recognised that platforms that might have a gatekeeper position, and the drivers for their market power, can be very different from each other. Therefore, in order to avoid over-regulation of some market participants, an approach based on case-by-case interventions is preferred over horizontal interventions, although this may become at the cost of slower enforcement and reduced legal certainty.

The Headquarters for Digital Market Competition also stated in the same context, it is necessary to focus on risks that are applicable to certain types of platforms. For example, the practice consisting of obliging business users to assume the shipping costs is relevant for marketplaces but not for app stores so measures should be different. The general principle is to follow a risk-based approach.

Criteria for designating undertakings as having paramount significance for competition across markets or the

The Dutch Ministry of Economic Affairs and Climate Policy proposes the following criteria:

- considerable amount of market power in at least one core market (in an ecosystem);

designation of a firm as having a gatekeeper position

- network effects, data collection leading to strong learning effects and feedback loops, and economies of scale and scope;
- the ability to use anticompetitive strategies such as leveraging or acquiring potential disruptor companies, and
- (potential for) ecosystem formation (increasing lock-in) and the ability to act as a private regulator
- Demand-side factors would also be relevant, include multi-homing (a mitigating factor) and consumer lock-in (an aggravating factor).

Institutional set-up

According to the Dutch Ministry of Economic Affairs and Climate Policy, the new competence should be introduced at the EU-level in light of the cross-border nature of the internet as a whole and of the services offered by gatekeeper platforms. But the Ministry does not support the set-up of a new EU body or authority.

iii. National Regulatory/Competition Authorities

Engagement with online platforms

ACM have identified issues in relation to large online platforms.

The Netherlands Authority for Consumers and Markets (ACM) explained that the main issues identified include the following:

- Access to APIs;
- rules set by the app stores (Apple and Google) prohibit certain practices or apps
- no access to the Apple's near field communications (NFC);
- refusal of access by Apple because the lack of sufficient scale (alleged by a communications app);
- pre-installing of own apps;
- the ranking of apps in the app store;
- possible preferential treatment of major app providers/other big platforms (such as Facebook or Amazon);
- the 30% commission on all subscription fees through Apple's own proprietary in-app purchase (IAP) system, the use of which is mandated;
- anti-steering rules that prohibit the advertising of alternative subscription sources (e.g. the app providers own website);
- limited access to customer data when Apple's IAP is used;
- the alleged copying of third-party apps; and
- consumer lock-in once the device, running on Apple iOS or Android, has been acquired.

Recognition of regulatory gap

According to ACM, the current P2B regulation does not seem to be sufficient or sufficiently enforced to address the problems that

concerning conducts by powerful online platforms.

app providers allege. Furthermore, although the existing antitrust rules could address most of the problems, case-by-case ex post interventions too slow for very dynamic digital markets that may be prone to tipping. Thus, the ACM, together with the Dutch Ministry of Economic Affairs and Climate Policy, has developed ideas for new ex ante regulation.

iv. Data protection authorities

Engagement with online platforms

DPA did not experience any conducts which unfairly impede the activities of dependent businesses or competitors or hamper innovation.

None of the DPAs that provided answers to the questionnaire experienced any conducts which unfairly impede the activities of dependent businesses or competitors or hamper innovation. Mainly because it does not fall within their remit.

DPAs hint to legislation that addressed unfair/distortive conducts by large platforms

The NAIH stated that unfair/distortive conduct is mainly dealt with through B2C consumer protection enforcement. Furthermore, the Ministry of Justice has set up the Digital Freedom Committee, which aims to make the operation of transnational technological companies transparent. In addition, the Hungarian hints to several acts that have been passed on by the Hungarian National Assembly.

The Polish Personal Data Protection Office referred to two acts: the act of 18 July 2002 on Providing Services by Electronic Means and the Telecommunications Act of 16 July 2004.

Cooperation of different authorities

The Polish Personal Data Protection Office stated that the Office of Competition and Consumer Protection, the Office of Electronic Communications and the Personal Data Protection Office cooperate and usually exchange of consumer protection information, primarily in the field of telemarketing. They are currently working on a cooperation agreement.

The NAIH has concluded a cooperation agreement with the GVH and the National Media and Infocommunications Authority.

Potential options for regulatory initiatives at EU level

DPAs agree that an EU-level approach would be more effective

For the respondents it seems appropriate to deploy an EU-level approach to address issues related to platforms. One reason is the multi-national presence of large platforms. Another reason that has been stated is that joint actions on the EU-level might help develop a common, uniform approach of various national authorities within the jurisdiction.

Codes of Conduct are supported but not by all DPAs.

The Polish Personal Data Protection Office states that Codes of Conduct can solve a wide range of practical problems related to processing of personal data, such as the lack of appropriate sector-specific legal provisions, including for example large internet platforms.

The Office for Personal Data Protection of the Slovak Republic prefers legislative tools.

With respect to data protection there is no need for ex-ante regulation.

According to the Polish Personal Data Protection Office the GDPR thoroughly regulates and sanctions the most common irregularities identified in data processing by large online platforms. From the perspective of the Polish Supervisory Authority, the GDPR provides adequate regulation of the conduct of data controllers, including large online platforms. Additionally, there is a potential risk of oversaturation of data protection legislation, which may result in confusion for both data subjects and data controllers with regards to their mutual rights and obligations. However, certain additional regulations and measures aimed at harmonizing the cooperation between supervisory authorities, especially with regards to the cross-border processing, could result in more effective enforcement of the GDPR.

The NAIH also stated that it is unclear how ex-ante or automated measures would ensure the procedural guarantees such as the clients' right to fairness.

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