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ARTICLE

Prospects of Merger Review in the Digital Age: A Critical Look at the EU, the United States, and Germany

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Abstract This article takes a critical look at merger law and practice in the EU, the United States, and Germany regarding data-related transactions. It focuses on the current legal standard and evaluates the recent decision practice in these jurisdictions. This includes the increasing implementation of data-related remedies, such as data access and data separation commitments, which have so far not been the focus of scholarly attention. On this basis, the article discusses the prospects of merger review within the framework of current policy reform debates. It concludes with recommendations for future legislative action in Germany and the EU. In particular, the legislature should implement a tightened and better suited merger review regime for dominant undertakings in digital markets.

Keywords Competition law · Data access · Digital markets · Digital Markets Act (DMA) · Merger commitments · Merger review

1 Background and Focus

Over the last 15 years, access to data has become more and more important in merger review in jurisdictions around the globe. The key question is whether merger review is effective in capturing data-induced competitive harms to date and how data-related remedies (such as access and separation commitments) address them.

This article is a slightly shortened, altered, and updated version of a part of a study, which the author wrote for the German Federal Ministry for Economic Affairs and Climate Action (Schweitzer et al., "Data access and sharing in Germany and in the EU: Towards a coherent legal framework for the emerging data economy", 2022).

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This article outlines the current legal framework for and practice of merger review and enforcement in the EU, Germany, and the United States of America (U.S.). It provides the factual basis for discussing policy options for possible amendments to the wider legal framework on merger review, especially for Germany and the EU.

The analysis faces the challenge to separate the role of access to data from general economic features in digital markets that are relevant for merger review. In practice, the role of data is assessed as one, albeit important or even decisive, out of several factors that may contribute to the concentration in markets. Nevertheless, rather than generally elaborating on mergers in the digital sectors, this analysis focuses on the contextualisation of data access,[1] including looking at the types and competitive function of data involved. It also covers the design of data-related remedies and an enquiry into their effectiveness, because looking at remedies appears important with regard to the advancement of merger review given that technical innovations allow for new solutions within the framework of merger commitments. So far, the literature is scarce on data-related merger remedies, so that this contribution seeks to fill the research gap.

Within the broader category of "data-related" mergers, a distinction is made between "data-driven" mergers, on the one hand, and mergers that simply involve datasets, on the other hand. In this regard, data-driven mergers are understood as transactions that relate to business models in which data stem from the continuous interaction with existing and potential customers or machine-generated data. Nevertheless, the following case analysis also takes a side glance at mergers that involve "conventional" markets for dataset provision and information services, as far as it can also inform remedy practice with respect to data-driven mergers.

The article is structured as follows: the first three sections analyse the legislative status quo regarding data-related merger review in the EU (Sect. 2), the U.S. (Sect. 3), and Germany (Sect. 4). In particular, the sections outline the current legal standard and evaluate the decision and remedy practice in the particular jurisdiction. On this basis, Sect. 5 discusses the prospects of merger policy, including an overview of current reform debates, before concluding with recommendations *de lege ferenda* in Germany and the EU.

2 Status in the EU

2.1 Data-Related Merger Review in the EU – Current Legal Standard

The EU Merger Regulation (EUMR)[2] empowers the European Commission to review and prohibit major cross-border mergers, acquisitions and joint ventures under certain conditions. For this purpose, the European Commission has to enquire into whether the proposed transaction would significantly impede effective competition (SIEC) in the common market or a substantial part of it.

[1] For a numerical overview of mergers involving Google, Amazon, Apple, Facebook, and Microsoft (so-called GAFAM firms), *see* Parker et al. (2021), p. 1312.

[2] OJ 2004 L 24, 1.

The European Commission can clear the merger straight away if not in doubt, approve the merger subject to the conditions of the commitments, or prohibit the transaction. Merger Guidelines set out the details,[3] but they do not address data-related mergers in particular, so that they give the European Commission ample room to assess data-related mergers.

To some extent, EU merger review has been reformed in recent times. In March 2021, the European Commission published guidance on referrals pursuant to Art. 22 EUMR of transactions which fall below the thresholds of EU Member States.[4] This aims to encourage Member States to refer cases to the European Commission, which will also accept referrals if a Member State lacks jurisdiction over the case. The guidance is motivated by bringing acquisitions of start-ups or innovators by established players within the scope of the EUMR, which often take place in digital sectors. This approach is controversial and has been challenged before the courts,[5] and the German government does not support this practice in case of mergers below notification threshold, which can potentially lead to contradicting merger decisions across the EU.

Furthermore, the Digital Markets Act (DMA)[6] also contains provisions for mergers within the EU.[7] Article 14 DMA obliges gatekeepers to inform the European Commission of intended mergers "where the merging entities or the target of concentration provide core platform services or other services in the digital sector or enable the collection of data".[8] This obligation is regardless of whether the gatekeeper would be required to notify the concentration under the EUMR or national merger rules. Article 14 DMA obliges the gatekeeper to provide particular information about the intended transaction to the European Commission,[9] which can use the information to monitor the gatekeeper status and consider it within the framework of market investigations under the DMA.[10] The obligation serves the DMA's goal to ensure the effectiveness of the review of the gatekeeper status and to adjust the list of core platform services.[11] But besides increasing the European Commission's abilities to monitor broader contestability trends in the digital sector, Art. 14 DMA requires the European Commission to inform the competent national authorities of the Member States about the intended mergers of which it has been notified.[12] Article 14(5) DMA allows national authorities to use this information for national merger control purposes as well as to request the European Commission to

[3] OJ 2004 C 31, 3; OJ 2008 C 265, 7.

[4] OJ 2021 C 113, 1.

[5] For further discussion, *see* Sect. 5.3.3.

[6] OJ 2022 L 265, 1.

[7] On merger review in this regulatory context, *see* Carugati (2022).

[8] Furthermore, the Commission can temporarily block gatekeepers from making acquisitions in areas relevant to the DMA in case of systematic infringements under Art. 18 DMA.

[9] *See* Art. 14(2) DMA.

[10] *See* Recital 71 DMA.

[11] *Ibid*.

[12] *See* Art. 14(4) DMA.

examine the merger pursuant to Art. 22 EUMR, should the conditions be met.[13] Therefore, the mandated sharing of information between the authorities should enlarge the pool of mergers that ultimately come under the scrutiny of the EU merger control regime.

Nevertheless, neither increasing referrals under Art. 22 EUMR nor fostering an information exchange between authorities under Art. 14 DMA changes the substantive standard for merger review in the EU. In this regard, the European Commission's practice of applying the EUMR remains authoritative. Therefore, it will be outlined in the following how the European Commission has assessed data-related competition concerns in merger decisions (see Sect. 2.2). The European Commission has not yet blocked a merger on the grounds that accessing or combining data would give rise to competition concerns.[14] Rather – albeit in only a few cases – it required commitments to remedy the competition concerns, which deserve a closer look (see Sect. 2.3).

2.2 Decision Practice

2.2.1 Overview

Mergers can affect the parties' ability to access existing data and collect new data. This can bear pro-competitive consequences and foster innovation. In particular, access to data and enriching datasets may enable companies to improve their products or services[15] and to provide new services. Moreover, data-related acquisitions can also effectuate substantial synergies between start-ups and established companies.[16]

However, data-related mergers raise competition concerns if improved data access translates into a "data advantage" that increases data concentration, which would ultimately restrain competition on relevant markets and raise objections by the regulatory authorities. This applies to horizontal mergers as well as to vertical and conglomerate mergers, which are a typical feature of the digital economy. It is a case-specific question how data access can restrict competition in the context of merger transactions in detail. In general, it is often held as decisive whether competitors could replicate the information that can be extracted from the data and therefore contest the data advantage.[17] The European Commission's case practice on data-related mergers has gradually developed over time. The following enquiry into it illustrates different constellations and provides a contextualised taxonomy of the restrictions of competition through data-related mergers.

[13] *See* Recital 71 DMA. Correspondingly, Art. 36 DMA allows using the received information in EU and national merger control.

[14] *See* Feasey and de Streel (2020), p. 38.

[15] Bundeskartellamt and Autorité de la concurrence (2016), p. 17.

[16] *See* European Commission (2019), pp. 110–111.

[17] Bundeskartellamt and Autorité de la concurrence (2016), p. 16; Taylor et al. (2020), p. 21; *see also* Heim (2021), on different means for replication in this context.

2.2.2 *Data Concentration of Dataset Providers and Information Services*

The first group of data-related mergers concerns primarily horizontal mergers, in which undertakings are involved that offer datasets and information services. This means that they offered substitutable datasets/information on the market as competitors prior to the merger. These mergers are data-related, but not data-driven in a narrower sense. Competitive concerns relate to their high market shares in offering similar products and to the likely barriers that a transaction would create for rivals to enter the market and offer similar datasets.

In 2008, the European Commission approved the acquisition of Reuters by Thomson subject to conditions. Thomson and Reuters are leading financial information providers, which source, aggregate and disseminate real-time and historical market data. They deliver such data as datafeed and supply content sets directly to end users as well as via redistributors.[18] The European Commission expected the transaction to impede competition in several markets in the financial information sector.[19] In this regard, the merger could cause horizontal restraints, given that it would eliminate rivalry between two leading data suppliers and reduce the choices of customers, and enable Thomson–Reuters to increase prices as a consequence.[20] Another concern related to the possible exclusion of downstream services, which obtain and integrate such data into their own offerings to customers. In this regard, vertical restraints were expected in a way that Thomson-Reuters could foreclose its competitors by increasing prices for market data distributed via redistributors or by limiting the access to such data that are integrated in its own products (complete desktop solutions from Thomson/Reuters).[21] As a remedy to address all these concerns, the European Commission accepted commitments (see Sect. 2.3).

In contrast, the European Commission unconditionally cleared the acquisition of Thomson Reuters Financial and Risk Business by Blackstone in 2018.[22] Both parties offer financial information, which they provide to customers as “datafeeds” through an API. This means that the customers obtain their content in a direct or “raw” data format.[23] However, the European Commission considered the combined market share too low to raise competition concerns.[24]

[18] *See* Case No. COMP/M.4726 – *Thomson Corporation/Reuters Group* (2008), para. 28.

[19] *I.e*. aftermarket broker research reports, earning estimates, fundamental financial data of enterprises, and time series of economic data, *see id*., para. 455.

[20] *See id*., *e.g*. paras. 300, 380.

[21] *See id*., para. 381.

[22] Case No. COMP/M.8837 – *Blackstone/Thomson Reuters F&R Business* (2018).

[23] *See id*., para. 12.

[24] *See id*., paras. 50–67.

2.2.3 Data Concentration as Advantage in Advertising Markets

For a long time, the European Commission considered the impact of data concentration only with regard to advertising markets.[25] This concerned mainly[26] vertical and conglomerate mergers, whereby access to the data of the target company would enable the acquirer to impede competition on the digital advertising market in which it was already present. In this regard, Google is the dominant player, and it was only in 2020 that the European Commission for the first time demanded remedies to address concerns about increased data-driven post-merger concentration in the markets for digital advertising.

As a first notable case, the European Commission approved the acquisition of DoubleClick by Google in 2008.[27] DoubleClick's technology ensures that advertisements are posted on the relevant websites and reports on the performance of such advertisements. The European Commission analysed, *inter alia*, the potential effects of foreclosure that could occur if Google combines its data with DoubleClick's data.[28] In particular, some stakeholders argued that combining DoubleClick's with Google's customer-provided data, which are generated by the use of the internet (e.g. IP addresses, cookie IDs, connection times) would allow Google to achieve a position that could not be contested by its competitors.[29] The European Commission acknowledged that information from combining such data could potentially be used to better target ads to users. However, it held that such web-surfing behaviour data are available to a number of Google's competitors, either by collecting them directly or through purchasing them via the market.[30] Therefore, the European Commission did not raise any further concerns with regard to competition and approved the merger unconditionally.

Following this line, the European Commission approved Microsoft's acquisition of the Yahoo search business in 2010. However, data were not explicitly addressed in the decision.[31] Ultimately, the European Commission held that by acquiring the Yahoo search business, Microsoft could increase its scale in search advertising and could even become an alternative to Google.

In contrast, data also played a role with regard to Facebook's position in the online advertising sector in the acquisition of WhatsApp by Facebook, which the European Commission cleared without conditions in 2014.[32] Remarkably, the European Commission held that WhatsApp did not collect any user data that were valuable for advertising purposes; therefore, the merger would not increase the

[25] *See* Monopolkommission (2015), para. 110.

[26] Regarding the big tech companies, there were only horizontal concerns in 2 out of 13 mergers: FB/Whatsapp and Microsoft/Yahoo (unlike conglomerate effects, which the Commission analysed in 8 out of these 13 cases), *see* Witt (2022), p. 221.

[27] Case No. COMP/M.4731 – *Google/DoubleClick* (2008).

[28] *See id.*, paras. 359–366.

[29] *See id.*, para. 359.

[30] *See id.*, para. 365.

[31] Case No. COMP/M.5727 – *Microsoft/Yahoo! Search Business* (2010).

[32] Case No. COMP/M.7217 – *Facebook/WhatsApp* (2014).

amount of data available to Facebook for advertising purposes.[33] However, compared to previous case analysis, the European Commission extended its enquiry and examined whether the merged company could hypothetically begin to collect data from WhatsApp users to improve the accuracy of targeted ads served on Facebook's social networking platform to WhatsApp users who are also Facebook users.[34] Still, the European Commission concluded that, in any case, a sufficiently large amount of internet user data was available on the market for advertising purposes that does not lie within Facebook's exclusive control (i.e. mainly Google, but also, among others, Apple, Amazon, eBay, Microsoft, AOL, Yahoo!, Twitter, IAC, LinkedIn, Adobe and Yelp).[35]

In 2016, the European Commission approved the acquisition of Yahoo! by Verizon.[36] The European Commission considered that both parties have user data (data generated by user activity on their websites and apps and other services)[37] that can be used for advertising purposes. However, after analysing the potential data concentration as a result of the acquisition, the European Commission excluded competition concerns as it held that the datasets held by Verizon and Yahoo! cannot be classified as unique and a large amount of such user data would continue to be available on the market.[38]

The European Commission approved the acquisition of LinkedIn by Microsoft in 2016 subject to conditions.[39] Also in this case, the European Commission inquired into the concentration of the parties' user data that can be used for advertising purposes. Again, the European Commission argued that a large amount of such user data would continue to be available on the market and that third parties could not obtain such data from Microsoft and LinkedIn prior to the acquisition,[40] and once more that the combination of data did not raise serious concerns regarding the compatibility of the merger with the market for online advertising.[41]

The acquisition of Fitbit by Google in 2020[42] is remarkable, as it was the first merger in the EU where the European Commission had such significant concerns on the anticompetitive effect of data-driven advantages in advertising markets that it required commitments from the parties. The competitive assessment stands in stark contrast to the approval of Google's Doubleclick acquisition in 2008. Fitbit devices and services collect different types of data:[43] observed data through devices – this means wellness data collected by sensors from wearables and other Fitbit devices

[33] *See id.*, para. 166.

[34] *See id.*, paras. 180–189.

[35] *See id.*, paras. 188–189.

[36] Case No. COMP/M.8180 – *Verizon/Yahoo* (2016).

[37] *Id.*, para. 80.

[38] *See id.*, paras. 90–93.

[39] *See* Case No. COMP/M.8124 – *Microsoft/LinkedIn* (2016); the commitments did not relate to data access, however.

[40] *See id.*, para. 180.

[41] *See* Feasey and de Streel (2020), p. 40.

[42] Case No. COMP/M.9660 – *Google/Fitbit* (2020).

[43] *See id.*, paras. 414–418.

(e.g. heart rate, steps, sleep, location); volunteered data – this means manual data input by a user on the Fitbit apps (user profile, weight, food log, menstrual cycle); inferred data – this means calculations on the basis of observed and/or volunteered data; according to Fitbit, the calculations take place on the device itself without the raw data being transferred to the Fitbit server. The European Commission feared that the acquisition of Fitbit and access to the device-generated data would significantly strengthen Google's ability to personalise ads. In particular, this would increase barriers for entry and expansion of Google's competitors in the markets for online search advertising, online display advertising, and the entire "ad tech" ecosystem.[44] Ultimately, the European Commission approved the acquisition of wearables manufacturer Fitbit by Google, conditional on compliance with a commitments package offered by Google (see Sect. 2.3).

In its most recent decision on data-related mergers of January 2022, the European Commission enquired into the acquisition of Kustomer by Meta.[45] Kustomer is a small but successful company founded in 2015, which offers customer service and supports customer relationship management (CRM) software that businesses use for engaging with their customers, *inter alia*, via messaging channels. One concern related to advertising markets. However, the European Commission held it to be unlikely that Meta could significantly impede effective competition in the market for the supply of online display advertising services by acquiring additional data through Kustomer. As reasons, the European Commission put forward the dependency on the consent of Kustomer's customers, the small size and limited growth potential of Kustomer, and alternative providers of online display advertising services that have access to similar commercial data.[46]

2.2.4 Data Advantage for Improving Existing or Developing New Products

More recently, the European Commission dealt with the issue of how data concentration might help companies to improve their existing products or develop new products,[47] while this would at the same time increase entry barriers for competitors and lower the contestability of the relevant market.

The European Commission enquired into data related to music apps in the acquisition of Shazam by Apple in 2018.[48] Apple offers its music streaming service, while Shazam provides a music recognition application. The European Commission examined the competitive effects if Apple integrates Shazam's data in its own services/datasets to improve existing functionalities or offer additional functionalities on digital music streaming apps. Shazam's datasets cover information regarding the user's identity, behavioural data (i.e. the user's recognition activity performed through the Shazam app like track title, artist, time at which the song was

[44] It considered the horizontal anticompetitive effects, *see id.*, paras. 419–468; for a differentiated discussion of the theory of harm, *see* Van Gerven et al. (2021).

[45] Case No. COMP/M.10262 – *Meta (formerly Facebook)/Kustomer* (2022), decision not yet published.

[46] European Commission (2022a).

[47] *See also* Monopolkommission (2015), para. 110; however, there was no such case back in 2015.

[48] Case No. COMP/M.8788 – *Apple/Shazam* (2018).

recognised, and location where the app was used), and which buttons or features within the Shazam app itself the user clicks on.[49] Yet, the European Commission argued that integrating such data would not amount to a negative impact on competition, in particular with regard to prices and choice in the markets for the digital music streaming apps.[50] The European Commission compared the Shazam user data to other datasets available on the 4V's (variety, velocity, volume, and value of the data)[51] and held, *inter alia*, that there are other sources, and one needs more than these data for providing personal suggestions.[52]

Within the framework of the acquisition of LinkedIn by Microsoft, the European Commission discussed the significance of the full dataset of LinkedIn explicitly for machine learning of Microsoft's customer relationship software solutions.[53] But given that LinkedIn was found to be only one out of many data sources for machine learning that was held as unlikely to be essential, the European Commission did not have any serious doubts with regard to input foreclosure effects to the detriment of providers of CRM software solutions.[54]

2.2.5 Data and Input Foreclosure

The European Commission has increasingly enquired into competitive restraints that occur if the merger leads to an input foreclosure with regard to data as a vertical effect. This is the case if the transaction provides incentives to decrease the availability of data that would otherwise have been supplied to the customers (and potential competitors) downstream.[55] It is relevant for conglomerate mergers, which cause actual or potential rivals' access to supplies, data or markets to be hampered.[56] Such data input foreclosure[57] can take different forms, i.e. termination of data provision, higher prices or a degradation of data quality or interoperability.

A straight-forward case of input foreclosure is the acquisition of Tele Atlas by TomTom in 2008.[58] Tele Atlas provides digital map data; TomTom provides navigation software and portably navigation devices (PND), which use such map data as input. The European Commission inquired into TomTom's ability and incentives to limit the access of other PND manufacturers to digital map data. The European Commission concluded that such foreclosure is unlikely because of the existence of the upstream competitor Navteq, and also because the sales of digital maps lost by Tele Atlas would not be compensated by additional sales of PNDs.

[49] *See id.*, para. 69.

[50] *See id.*, para. 315.

[51] *See also* Zingales and Apple (2018).

[52] *See* Case No. COMP/M.8788 – *Apple/Shazam* (2018), paras. 318–328.

[53] *See* Case No. COMP/M.8124 – *Microsoft/LinkedIn* (2016), para. 257.

[54] *See id.*, para. 277; *see also* Heim (2021), p. 61 *et seq.*

[55] *See* OJ 2008 C 265, 6, paras. 31–57

[56] *See* European Commission (2019), pp. 116, 121.

[57] *See* Taylor et al. (2020), p. 21; on foreclosure theories of harm, *see also* Bundeskartellamt (2022a), pp. 29–30.

[58] Case No. COMP/M.4854 – *TomTom/Tele Atlas* (2008).

Data input foreclosure also played a role in the acquisition of GitHub by Microsoft in 2018. GitHub supplies DevOps tools and is a popular platform for software development. It holds significant amounts of data about users and programming that Microsoft could use (i.e. user-generated content, users' personal information, and metadata). The European Commission also examined whether Microsoft could further integrate its own DevOps tools with GitHub while limiting the integration with third parties' DevOps tools by means of restricting access to data. The European Commission did not expect anticompetitive vertical non-coordinated effects in this regard.[59] Rather it held that Microsoft would not be able to restrict access to most of the data that are currently accessible to third parties (source code, revision history, identity of author, and commit messages in relation to public repositories).[60] As regards to data currently not accessible to third parties, Microsoft could not deny access to competitors without breaching GitHub's terms of service with its customers.[61]

The BMW/Daimler mobility services joint venture[62] of 2018 concerned free-floating car sharing services via DriveNow (BMW) and car2go (Daimler). The European Commission feared that the joint venture would allow Daimler and BMW to shut out rival providers in the vertically affected market for multimodal integrator apps to the benefit of Daimler's own integrator app "moovel"[63] in six cities. Such apps aggregate several different transport options, including free-floating car sharing such as the services of DriveNow and car2go. Considering that data on BMW's and Daimler's fleet were considered a "must-have" for rival multimodal apps, the European Commission concluded that the parties would have the ability and incentive to foreclose rival multimodal apps.[64] To address these concerns, Daimler and BMW offered commitments (see Sect. 2.3).

Also, the acquisition of Fitbit by Google in 2020 (see above) raised concerns with regard to vertical anticompetitive effects[65] in the form of data input foreclosure. In particular, this concerned Fitbit's Web Application Programming Interface (API): prior to the merger, Fitbit provided some health and fitness data to others via API, so that these third parties could provide services to Fitbit users and obtain their data in return. The European Commission feared that after the acquisition Google could restrict competitors' access to the Fitbit Web API and thereby harm start-ups. To address these concerns, the European Commission ultimately accepted data access commitments by Google (see Sect. 2.3.2).

Foreclosure was also the major concern in Meta's acquisition of Kustomer in 2022 (see above). In particular, the European Commission feared that the acquisition would harm competition in a way that Meta could engage in foreclosure strategies vis-à-vis Kustomer's rivals and new entrants by denying or degrading

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[59] Case No. COMP/M.8994 – *Microsoft/Github* (2018), paras. 131–153.

[60] *See id.*, para. 141.

[61] *See id.*, para. 153.

[62] Case No. COMP/M.8744 – *Daimler/BMW/Car Sharing JV* (2018).

[63] Which combines on one platform a variety of offers, such as the car sharing provider car2go, Deutsche Bahn, mytaxi, rental bicycles and public transport.

[64] *See* Case No. COMP/M.8744 – *Daimler/BMW/Car Sharing JV* (2018), para. 319.

[65] *See* Case No. COMP/M.9660 – *Google/Fitbit* (2020), paras. 497–531.

access to the APIs for Meta's messaging channels (i.e. WhatsApp, Instagram and Messenger of Meta). This decision did not concern access to datasets as such, but rather access to integrate Meta's services as an important function for CRM software. However, it is worth mentioning, because the European Commission confirmed the trend of accepting API access commitments (see Sect. 2.3.2).

2.3 Remedies

2.3.1 EU Merger Remedies and Data

If the European Commission raises specific competition objections regarding the compatibility of a concentration, the parties may offer remedies (commitments) to meet these objections. These commitments should be proportionate to the competition problem and eliminate it entirely.[66] If the European Commission regards the commitments as sufficient, it can approve the merger subject to the conditions of the commitments as remedies,[67] otherwise the European Commission prohibits the merger. Details are set out in the European Commission's Notice on Remedies.[68]

When looking at data-related remedies in particular, the general distinction between structural and behavioural remedies serves as a starting point. Structural remedies (such as divesting a business unit) change the structure of the relevant markets directly and permanently. They aim at strengthening existing competitors or fostering the emergence of new ones. The European Commission regards structural remedies as the preferred option.[69] In contrast to behavioural remedies, structural remedies have the advantage that they eliminate anticompetitive problems and incentives at the root, while they do not need monitoring and regulatory oversight.[70] In contrast, behavioural remedies address the ongoing and future conduct of the merging entities. They can require or prohibit certain business conduct (e.g. mandate conditions for pricing or prohibit the refusal of deals).[71] In merger cases, behavioural remedies are only accepted under exceptional circumstances,[72] because they leave the anticompetitive incentives of the parties unchanged and their implementation and effective oversight appears questionable.[73]

What has become increasingly relevant regarding data-related mergers are access remedies. The notion of "access" as a remedy is broad and not limited to data.[74]

[66] *See* Recital 30 EUMR.

[67] *See* Arts. 6(2), 8(2) and Recital 30 EUMR.

[68] OJ 2008 C 267, 1.

[69] *See id.*, para. 15.

[70] *See* Ducci and Trebilcock (2020), p. 3.

[71] *See* Maier-Rigaud and Loertscher (2020), p. 4.

[72] *See* OJ 2008 C 267, 1, para. 17.

[73] *See* Maier-Rigaud and Loertscher (2020), p. 5.

[74] The Commission has also imposed access remedies in other cases in the technology field, *see* Case No. COMP/M.8665 – *Discovery/Scripps* (2018), on access to TV channels in Poland.

Access remedies concern cases in which the merging parties have to make assets[75] and, in this particular case, data accessible to third parties, usually on a non-discriminatory basis.[76] Providing access should enable third parties to enter markets or to compete for a larger share of the market.[77] There is a vivid debate on whether access remedies are to be classified as structural or as behavioural, or constitute a distinct or hybrid category of remedies.[78] The regulatory aim of such remedies is to have a structural effect[79] but, in fact, data access remedies address the behaviour of the party by imposing an obligation for conduct in the first place, which may also require constant future implementation and monitoring. A look at the European Commission's merger decisions that involve commitments illustrates the nuanced differences and tendencies of the European Commission's merger decision practice regarding data access remedies.

2.3.2 Access to Data as Merger Remedy

Data access remedies must be distinguished from divestment of businesses which may also include the provision and licensing of data as structural remedies. In 2021, the European Commission approved the acquisition of IHS Markit by S&P Global on condition of the divestment of businesses in the areas of commodity price assessments and financial data.[80] Also, the acquisition of Monsanto by Bayer in 2018 required Bayer to divest its digital agricultural business worldwide to competitor BASF, while Bayer would receive a non-exclusive, royalty-free, license-back regarding certain digital agricultural assets.[81] This divestment addressed the concern that the acquisition would eliminate (potential) competition in the field of digital agriculture between Bayer's and Monsanto's agricultural platforms, which analyse public data (e.g. satellite pictures and weather data) and privately collected data to provide services to farmers on how to best manage their fields.

The remedies in the Thomson-Reuters acquisition also strongly resemble structural remedies in the form of a divestiture. However, they bear features of an access remedy because instead of entirely divesting and transferring assets to a third party, the European Commission agreed that Thomson and Reuters must sell copies of four databases[82] to a third party while they may retain ownership and continue to use their databases to commercialise the respective data to their own

[75] *E.g.* infrastructure, intellectual property, networks, essential inputs, etc.

[76] *See* OJ 2008 C 267, 1, para. 62.

[77] *See* Maier-Rigaud and Loertscher (2020), p. 6.

[78] For the discussion, *see ibid.*

[79] *See* Bundeskartellamt (2017), para. 74.

[80] Case No. COMP/M.10108 – *S&P Global/IHS Markit* (2021).

[81] Case No. COMP/M.8084 – *Bayer/Monsanto* (2018), para. 15.

[82] Thomson WorldScope, a fundamentals database; Reuters Estimates, an earning estimates product; Reuters Aftermarket Research database, an analyst research distribution product; and Reuters Economics.

customers. For the transfer of the copies, Thomson and Reuters had to provide technical support services to enable third-party purchasers to integrate the databases into their own existing offerings.[83] Also, Thomson and Reuters committed to provide regular updates to the databases to enable the purchasers to compete effectively.[84] These commitments aimed to quickly establish competitors to the merged entity[85] and thereby provide sufficient post-merger alternatives to customers of financial information. What happened was that the merging parties sold a copy of one of the concerned datasets[86] to competitor FactSet[87] for approx. US$70 million shortly after the approval of the acquisition.[88] This transaction also included the possibility to hire certain key employees and an agreement which requires Thomson Reuters to provide services (including consulting and support, and regular updates) to FactSet for up to 18 months after the completion of the sale.[89] Thomson thereby met part of the requirements set out by the European Commission and the U.S. DoJ. To this day, the copy of the Thomson Reuters database which has been developed and turned into "FactSet Fundamentals" is still sold.[90] In contrast, Thomson Reuters put forth an acquirer regarding the other databases (Earnings Estimates and Aftermarket Research Databases) in August 2008;[91] however, neither the name of the buyer nor information on the success of the sale itself could be found.

While Thomson Reuters was a step towards data-related access remedies, the commitments in the European Commission's decision on the Daimler-BMW Mobility joint venture (JV) of 2018 constitute data access remedies of a "newer generation". The European Commission cleared the Daimler-BMW JV under conditions to prevent data input foreclosure on the upstream market for mobility apps and to restore effective competition with regard to the concerns of providers of multimodal apps other than Daimler's Moovel.[92] In particular, the JV must provide an API, which enables third-party aggregator platforms for mobility solutions to access mobility data on request and therefore allows such platforms to display certain information.[93] The conditions covered six cities and API access is limited to three years after closing of the transaction.[94] A monitoring trustee was appointed

[83] *See* COMP/M.4726 – *Thomson Corporation/Reuters Group* (2008), para. 480. It was not feasible to divest distinct business units, *see* Weitbrecht (2010), p. 282.

[84] *See* COMP/M.4726 – *Thomson Corporation/Reuters Group* (2008), para. 480.

[85] *See id.*, para. 482.

[86] Thomson fundamentals WorldScope.

[87] An American provider of integrated financial information and analytical applications.

[88] Additionally, there was an agreement to transfer a percentage of annual revenues to FactSet, which were expected to be around $2 million to $3 million annually, *see* Finextra (2008).

[89] *See* Bobsguide (2008).

[90] *See* FactSet (2022).

[91] *See* Memorandum in Support of Plaintiff's Unopposed Motion to Modify Final Judgement, *U.S. v. The Thomson Corporation*, Case No.: 1:08-cv-00262 (D.D.C., 20 Aug 2008).

[92] *See* Case No. COMP/M.8744 – *Daimler/BMW/Car Sharing JV* (2018), para. 321.

[93] In particular, access includes unique identifier to the vehicle, position, status (available/not available), licence plate, URL leading to the booking screen for the vehicle in the provider's app, and other relevant info (model, colour, fuel type, etc.); on the material terms, *see id.*, Commitments, p. 13.

[94] For details, *id.*, Commitments, p. 3.

(for details, see Sect. 2.3.4). As for the technical and legal implementation,[95] a "closed API approach" was chosen.[96] This means that at the request of aggregator platforms that meet specific criteria, API access is granted on the basis of a standard contract for free in a non-discriminatory manner. Aggregator platforms may use the data only for the purpose of car sharing activities and not, for example, for data analytics. Moreover, the data are not provided to large technology companies that would use the data in the area of mobility services and autonomous driving. The commitments expired on 31 January 2022, but the European Commission extended them by another two years for the cities of Cologne, Düsseldorf and Vienna. The reason is that the European Commission observed that no meaningful market entry[97] of other car sharing providers had taken place in these cities.[98] With regard to the data access commitment, the European Commission found that several third-party aggregator platforms have indeed obtained API access and that a majority of respondents intends to do so in the future with regard to these cities.[99]

The Google-Fitbit acquisition has been cleared on condition that Google must maintain access for API users for 10 years, subject to user consent and without charge for access under further specified conditions.[100] This also includes new data types to be shared through the Web API "within one to two years if they qualify as Supported Measured Body Data and at least 3 of the 5 largest wearable OEMs make available an equivalent data type".[101] The designated monitoring trustee performs an ex-ante review of Google's and Fitbit's terms and conditions for data access.[102] As for the implementation, Fitbit requires that applications use a specific framework to securely authorise access to its user data.[103] Data requesters have to comply with Fitbit Platform terms of service, Google terms of service and the Service User Data Policy, and additional privacy and security requirements.[104]

Recently, the European Commission cleared the acquisition of Kustomer by Meta under certain conditions. These conditions confirm the very recent practice towards access remedies and bear implications for the advancement of data-related merger commitments. In particular, Meta must also guarantee free and non-discriminatory access to its publicly available APIs for its messaging channels to CRM software providers and new entrants that compete with Kustomer's CRM

[95] For more on the commitment, *see id.*, Commitments (after p. 65).

[96] *See* https://docs.partner.share-now.com/docs/overview (accessed 17 Dec 2022).

[97] Meaningful market entry is defined in the Commitments as that one or more other car sharing provider(s) has/have entered the market in the relevant city and then reach(es) more than 60% of the average fleet size of Daimler/BMW's fleet of the previous year, *see* Case No. COMP/M.8744 – *Daimler/BMW/Car Sharing JV* (2018), Commitments, p. 2; Case No. COMP/M.8744 – *Daimler/BMW/Car Sharing JV* (2022), Clause 5.

[98] *See* Case No. COMP/M.8744 – *Daimler/BMW/Car Sharing JV* (2022), Clause 6.

[99] *See id.*, Clause 9.

[100] *See* Case No. COMP/M.9660 – *Google/Fitbit* (2020), Summary, paras. 49, 56–60.

[101] *See id.*, para. 57.

[102] *See id.*, para. 58.

[103] *See* https://dev.fitbit.com/build/reference/web-api/developer-guide/authorization/ (accessed 17 Dec 2022).

[104] *See* Case No. COMP/M.9660 – *Google/Fitbit* (2020), Summary, para. 49.

software. Also, Meta must make improvements of the features and functionalities of its messaging services equally available to Kustomer's rivals and new entrants. These access commitments last for 10 years. Moreover, a trustee that may access "Meta's records, personnel, facilities or technical information, and can appoint a technical expert to assist in the performance of its duties"[105] was appointed to monitor compliance.[106] Finally, the commitments also include a dispute resolution mechanism that third parties can invoke.

2.3.3 Restrictions on the Use of Data as Merger Remedy

The Google-Fitbit acquisition has entered new terrain with regard to data-related merger remedies: to address the concern of leveraging Google's data advantage in the markets for digital advertising, Google agreed not to use any data collected via sensors (including GPS) as well as manually inserted data for Google ads for 10 years as a commitment to the merger. Google will store these data in a "data silo" that is separate from any other Google data that are used for advertising.[107] In detail, the data silo will be a virtual storage environment within Google. Google's access to this environment will be restricted through internal firewalls and logged, while these restrictions must be auditable by the appointed monitoring trustee with the help of an independent technical expert (for details, see Sect. 2.3.4). At the same time, Google provides users the choice to grant or deny use by Google Services other than Google Ads of any Measured Body Data.[108]

This obligation of data separation resembles Art. 6 No. 2 DMA and Art. 11(1) Data Governance Act (DGA).[109] But as a behavioural remedy which needs permanent oversight, it is a new approach in the context of merger remedies and poses significant challenges (see Sect. 5.3.2).

2.3.4 The Monitoring Trustee's Role for Effective Implementation of Data-Related Remedies

When it comes to data-related behavioural commitments, the newer remedy practice of the European Commission hints at the central role that the monitoring trustee plays for effectively implementing the remedies. The European Commission refers to the monitoring trustee as its "eyes and ears".[110] Its main task is to oversee the implementation of the parties' compliance with the commitments,[111] which is further specified in the trustee mandate that is concluded between the trustee and the

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[105] *See* European Commission (2022a).

[106] European Commission, Monitoring Trustee in Case M.10262 – *META (formerly Facebook)/ Kustomer.*

[107] *See* Case No. COMP/M.9660 – *Google/Fitbit* (2020), Summary, para. 47.

[108] *See id.*, para. 54.

[109] OJ 2022 L 152, 1.

[110] *See* OJ 2008 C 267, 1, para. 118.

[111] *See id.*, para. 117.

parties, and in a further working-plan.[112] The monitoring trustee is usually appointed by the parties and approved by the European Commission.[113] It must be independent, qualified and may not be exposed to a conflict of interests.[114]

In the Daimler-BMW JV case, Nocon[115] was appointed as the monitoring trustee. Amongst other things, its tasks are to propose to Daimler and BMW necessary measures to ensure compliance with the commitments, to act as a contact point for any requests by third parties in relation to the commitments, and to write reports to the European Commission if it concludes that the parties fail to comply.[116] Correspondingly, the parties have to provide all necessary information to enable the monitoring trustee to fulfil its tasks.[117] Also, it has to provide regular reports and a final report to the European Commission about the status of compliance with the commitments.[118] The monitoring trustee played a crucial role regarding the extension of the commitments, as it presented evidence to the European Commission that the extension would be appropriate and in line with the commitments to the decision.[119]

In the Google/Fitbit acquisition, the ING Bank was appointed as the monitoring trustee. Its tasks are, *inter alia*, regular auditing and reporting to the European Commission, assessing technical means through which Google generates access logs, proposing to Google such measures to ensure compliance with the commitments, promptly reporting on non-compliance, and acting as a contact point for questions from third parties about the nature and scope of the commitments.[120] In particular the tasks also include assessing technical measures put in place to comply with the data separation,[121] overseeing the update mechanism with regard to new data types to be made available,[122] and an ex-ante review of the terms and conditions, so that Google has an obligation to notify amendments 10 days before they become effective.[123] For these purposes the monitoring trustee has access to Google's records, personnel, facilities or technical information. The ING Bank has appointed the U.S. privacy consulting company Sentinel as an independent technical expert,[124] which supports the monitoring trustee in fulfilling its tasks.

[112] *See id.*, para. 119.

[113] For the procedure, *see id.*, paras. 123–127.

[114] *See id.*, para. 124.

[115] A Berlin-based company which is specialised in competition-related monitoring of trustee projects.

[116] *See* Case No. COMP/M.8744 – *Daimler/BMW/Car Sharing JV* (2018), para. 29.

[117] *See id.*, para. 30.

[118] *See id.*, Commitments, Clause 18.

[119] *See id.*, Clause 12.

[120] *See* Case No. COMP/M.9660 – *Google/Fitbit* (2020), Commitments, Clause 24.

[121] *See id.*, para. 959.

[122] *See id.*, para. 960.

[123] *See id.*, Summary, para. 58.

[124] Chiavetta (2021); Case No. COMP/M.9660 – *Google/Fitbit* (2020), Commitments, Clause 28.

3 Status in Germany

3.1 Data-Related Merger Review in Germany – Current Legal Standard

In general, German merger control rules (Secs. 35 to 43a GWB – Act Against Restraints of Competition[125]) apply to concentrations which are not the subject of the EU Merger Regulation.[126] The Bundeskartellamt (German Federal Cartel Office) is the national authority in charge. To a large extent, the basic underlying concepts are similar to EU merger control. However, there are notable differences and clarifications with particular respect to digital markets and the role of data, which the German legislature has addressed in recent reforms, and which are relevant for merger control.

With the 9th Amendment to the GWB, which entered into force in June 2017, the legislature introduced a duty to notify the merger if the transaction value exceeds EUR 400 million. This complements the turnover-based notification thresholds, which were held as insufficient to capture cases prototypical in digital markets. It enables the Bundeskartellamt to enquire into cases in which established players reduce competition by buying small innovative competitors that, for instance, hold important data.[127] Moreover, Sec. 18(2a) GWB has been introduced to clarify that when analysing whether a company may hold a dominant position, the provision of free services does not invalidate the assumption of a market. With respect to markets involving multi-sided markets and networks, the legislature introduced Sec. 18(3a) GWB, which lists elements to be considered when assessing the market position of an undertaking, including the undertaking's access to data relevant for competition.

The 10th Amendment to the GWB entered into force in July 2021. The legislature has substantially reformed the rules on the abuse of market power, which are highly relevant for data access. Relevant for merger control is Sec. 18(3) No. 3 GWB, which added the undertaking's "access to data relevant for competition" as a further criterion for assessing the market position of an undertaking in relation to its competitors beyond multi-sided markets and networks. Moreover, the legislature revised merger control provisions, which are however general and not specifically tailored to digital markets.[128]

The 10th Amendment to the GWB also introduced Sec. 39a GWB, which affects national merger control and potentially digital markets. The provision extends the competencies of the Bundeskartellamt after it has conducted an investigation into a

[125] Gesetz gegen Wettbewerbsbeschränkungen – Competition Act in the version published on 26 June 2013 (Bundesgesetzblatt (Federal Law Gazette) I, 2013, pp. 1750, 3245), as last amended by Art. 2 of the Act of 19 July 2022 (Federal Law Gazette I, p. 1214).

[126] Sec. 35(3) GWB.

[127] This was the case in the acquisition of Whatsapp by Facebook. For background, *see* Scholl (2017), pp. 219–220. In January 2022, the Bundeskartellamt published guidelines jointly with the Austrian Bundeswettbewerbsbehörde, which provides details on calculating the transaction thresholds, *see* Bundeskartellamt and Bundeswettbewerbsbehörde (2022).

[128] *E.g.* increase of domestic turnover thresholds; changes in procedure; better control of gradual takeovers of small undertakings.

specific sector of the economy (sector inquiry).[129] Should there be "objectively reasonable grounds for believing that future concentrations could significantly impede effective competition in Germany" with regard to this sector, the Bundeskartellamt may order undertakings to notify the Bundeskartellamt of any concentration and prohibit any concentration in the respective sector within a period of three years from the date of service of the order. However, as yet there has not been a case that has caught the attention of the Bundeskartellamt with regard to mergers in digital markets.

Moreover, the 10th Amendment to the GWB has introduced Sec. 19a GWB. This section grants far-reaching powers of intervention on the part of the Bundeskartellamt vis-à-vis "Undertakings of Paramount Significance for Competition Across Markets". The criteria for identification target digital gatekeepers like Meta, Alpha or Amazon. Once the Bundeskartellamt has identified this paramount importance, it can prohibit certain conduct of the undertaking for a period of five years. Section 19a(2) GWB enumerates the particular cases of conduct that the Bundeskartellamt may prohibit. However, while Sec. 19a GWB is a seminal new piece of legislation, it does not affect merger review.

3.2 Decision Practice

Cases that concern data and data-related advantages have so far been rare before the Bundeskartellamt. In 2015, the Bundeskartellamt approved the acquisition of the "HERE mapping service" (formerly part of Nokia), by a consortium of BMW, Daimler and Audi.[130] HERE creates databases of digital maps as a basis for classic navigation applications. Such digital maps, in conjunction with the sensors installed in the vehicles, will allow the maps to be updated in real time. The automotive industry considers them to be an essential element for connected and autonomous driving. The Bundeskartellamt did not have any concerns regarding an exclusion of other car manufacturers from the supply of digital maps, because automobile customers can still buy digital maps from TomTom. Therefore, car manufacturers could still develop autonomous driving systems in cooperation with TomTom.

Notable is the Bundeskartellamt's prohibition of the planned acquisition by CTS Eventim of Four Artists in 2017. It was not directly related to data markets, but data played a crucial role for the competitive assessment of the acquisition. Amongst other things, CTS Eventim operates an online ticket shop, provides ticketing services and organises events. At that time, 60–70% of all tickets sold in Germany via a ticketing system were sold through CTS Eventim's ticketing platform. The Bundeskartellamt held that by acquiring Four Artists, CTS Eventim would gain control of additional relevant ticket quotas and expand its market position further. What was relevant for the assessment (even though not decisive for the prohibition) was the undertaking's access to data relevant for competition under Sec. 18(3a) No. 4 GWB. The Bundeskartellamt held that CTS Eventim has a significant and

[129] On conceptual challenges regarding the link between sector inquiry and merger review, *see* Bundeskartellamt (2022a), pp. 18–19.

[130] Bundeskartellamt (2015).

competitively relevant data advantage.[131] Especially the ticket brokerage via its online store would enable CTS Eventim to extensively collect customer data (e-mail address, street, house number, postal code, city, country, date of birth (optional), telephone, and payment data), which could then be linked and used for marketing purposes and market analyses. Moreover, it generates sales data in the ticket system, in the case of sales via stationary sales outlets that are connected to the CTS Eventim system,[132] which makes it possible to gain insights into the regional and temporal distribution of demand for the specific events. All this would enable CTS Eventim to better target customers, which leads to higher ticket bookings;[133] to use these data to increase customers' willingness to pay;[134] and to better forecast demand for certain events and use it to the advantage of the Group's own event organisers.[135] The Bundeskartellamt held that the data cannot be duplicated by competing ticket systems, due to the high market share of CTS Eventim.[136] Therefore, the vertical integration of Four Artists through the proposed transaction would lead to an increased possibility of external promoters being disadvantaged, amongst other things because it would make CTS Eventim less dependent on demand from external promoters, which would strengthen its market position and even increase the possibility of data collection.[137] The prohibition of the merger was confirmed by the German Federal Court of Justice.[138]

The Meta/Kustomer merger was also subject to German merger review before the Bundeskartellamt. There was a procedural hurdle: the Bundeskartellamt only refers cases to the European Commission under Art. 22 EUMR if they are notifiable under German competition law.[139] This contrasts with the Art. 22 Guidance of the European Commission, which assumes an impact on competition in the single market even if the transaction would not meet national notification thresholds. To clarify this issue, the Bundeskartellamt could not join other Member States' request[140] to refer the Meta/Kustomer acquisition to the European Commission and it launched a parallel procedure. Ultimately, the Bundeskartellamt held that the merger should have been notified in Germany under Secs. 35(1a) and 39(1) GWB by confirming the local nexus as Kustomer performed substantial operations in Germany,[141] as it concluded that Kustomer is sufficiently active in Germany and that the transaction will have effects in Germany. The Bundeskartellamt decided shortly after the European Commission had cleared the merger on certain

[131] *See* Bundeskartellamt, 23 Nov 2017, B6-35-17 – *CTS Eventim/Four Artists*, para. 190.

[132] *See id.*, para. 191.

[133] *See id.*, para. 192.

[134] *See id.*, para. 193.

[135] *See id.*, para. 194.

[136] *See id.*, para. 195.

[137] *See id.*, para. 290.

[138] German Federal Court of Justice (BGH), 12 Jan 2021, Case No. KVR 34/20 – *CTS Eventim/Four Artists*.

[139] Bundeskartellamt, 12 Dec 2021, B 6 – 37/21 – *Meta/Kustomer*, para. 59.

[140] Austria, joined by nine other Member States.

[141] Bundeskartellamt, 12 Dec 2021, B 6 – 37/21 – *Meta/Kustomer*, paras. 19–59.

conditions. For its assessment, the Bundeskartellamt could take account of the findings, including the agreed commitments. In substance, it concluded that existing competition law would not have warranted a prohibition,[142] but cast some doubts on the assessment presented by the European Commission.

3.3 Remedies

While the CTS Eventim case especially shows that the Bundeskartellamt duly considers the relevance of data access for impeding competition, there is no case practice in Germany that relates to data-related (access) remedies and respective post-merger monitoring. This can be explained by restrictions on the admissibility of behavioural remedies according to Sec. 40(3) sentence 2 GWB, which states that the conditions and obligations which should ensure that the undertakings concerned comply with the commitments "must not aim at subjecting the conduct of the undertakings concerned to continued control". The German Guidance on Remedies explains that this would require the conduct to be constantly monitored by the competition authority or a third party and that such effective control could not be maintained.[143] It declares market access remedies as inadmissible if they require constant market monitoring.[144] For this reason, "Chinese-Wall" commitments, which would shield sensitive information from different business units, are also not considered as suitable to remedy competition harm, due to the extreme difficulty to identify, stop and prevent non-compliance.[145]

In the literature, it has been debated where to draw the line between structural remedies and behavioural remedies which are prohibited under Sec. 40(3) GWB. In fact, the Bundeskartellamt has accepted access to networks as a remedy in the (regulated) gas sector, but only to a certain extent.[146] A major point for discussion is the requirement of "*continued control*", e.g. if this criterion is met when the commitment is limited in time.[147] Regardless of where exactly German competition law draws the line, it is evident that the Bundeskartellamt has less leeway than the European Commission in designing access remedies. Such commitments which the European Commission accepted in Google-Fitbit – and arguably also in the BMW-Daimler JV – would not have been admissible under merger control in Germany. These different stands on behavioural remedies feed into the debate about the appropriate legal framework and policy options with respect to data-related merger remedies (see Sect. 5.3.2).

[142] Bundeskartellamt (2022b).

[143] *See* Bundeskartellamt (2017), para. 26.

[144] *See id.*, para. 28.

[145] *See id.*, paras. 86–87.

[146] *See* Thomas (2020), Sec. 40, para. 112.

[147] For different means of interpretation, *see* Picht (2022), Sec. 40 GWB, para. 70; Thomas (2020), Sec. 40, para. 113.

4 Status in the United States

4.1 Data-Related Merger Review in the U.S. – Current Legal Standard

In the U.S., antitrust agencies investigated early on whether bringing together significant datasets may result in anticompetitive harm. Looking at the cases[148] illustrates some considerable similarities – not least because in some cases the European Commission and the U.S. counterparts have co-operated and reviewed the merger with comparable outcomes. At the same time, it is striking that a larger number of cases involves divestitures to mitigate competition concerns. Also, access remedies have already been imposed in the Ticketmaster/Live Nation merger of 2010, while "next generation" remedies such as identified in BMW/Daimler and Google/Fitbit cannot be recognised.

In the U.S., the Department of Justice (DoJ) and the Federal Trade Commission (FTC) share jurisdiction over merger review. Under the Hart-Scott-Rodino Act of 1976, their notification is required if filing thresholds are surpassed. Once the authorities are notified, they allocate the merger to one agency for review, which can then close the investigation or challenge it. Upon challenge, it could enter into a negotiated consent agreement with the companies to restore competition, or it could file a preliminary injunction in a federal court to stop the merger.[149] Section 7 of the Clayton Act outlines the substantive rules for merger review. It prohibits mergers, acquisitions, and certain joint ventures where the effect may be to substantially lessen competition. The Horizontal Merger Guidelines of 2010[150] and Vertical Merger Guidelines of 2020[151] of the DoJ and FTC give guidance. However, the FTC withdrew from the Vertical Merger Guidelines, so that they only remain in effect for the DoJ.[152] The DoJ modernised its Merger Remedies Manual in 2020,[153] while the FTC follows its Statement Negotiating Merger Remedies of 2012.[154]

4.2 Decision Practice and Remedies

4.2.1 Data Concentration of Dataset Providers and Information Services

Also in the U.S., data-related divestitures as structural merger remedies were imposed early on. As a prototype, the FTC challenged the Dun & Bradstreet

[148] On the methodological differences with regard to lower availability of information on the competitive assessments in the U.S., *see* Witt (2022), pp. 223–224.

[149] *See* Federal Trade Commission, Premerger Notification and the Merger Review Process, https://www.ftc.gov/advice-guidance/competition-guidance/guide-antitrust-laws/mergers/premerger-notification-merger-review-process (accessed 17 Dec 2022).

[150] U.S. Department of Justice and Federal Trade Commission (2010).

[151] U.S. Department of Justice and Federal Trade Commission (2020).

[152] *See* Federal Trade Commission (2021a); on the discussion, *see also* Witt (2022), p. 226.

[153] Antitrust Division U.S. Department of Justice (2020).

[154] *See* Feinstein (2012).

Corporation acquisition of Quality Education Data of 2009.[155] The FTC alleged that the combination of data sold by these companies gave Dun & Bradstreet, through its subsidiary Market Data Retrieval, more than 90% of the market for K-12 educational marketing data. The data included names, job titles, course titles, demographic information and/or contact information of education industry participants.[156] A consent agreement required Dun & Bradstreet to divest assets to its competitor MCH, to restore competition that was eliminated as a result of the transaction. In particular, Dun & Bradstreet was required to sell MCH an updated K-12 database.[157] There are several other mergers in which the FTC required that databases should be divested by third parties to compete with the combined firm.[158]

The acquisition of Reuters by Thomson in 2008 (for the EU, see Sect. 2.2.2) was also under the scrutiny of the DoJ.[159] In line with the European Commission, the DoJ obliged Thomson and Reuters to sell copies of the data to enable the acquirer of each set of data to offer institutional financial data products comparable to those offered by Thomson or Reuters.[160] The DoJ had to approve the buyer of each set of assets.

A comparable case was the acquisition of Arbitron by Nielsen in 2014, which risked substantially lessening competition for the national syndicated cross-platform audience measurement services[161] that Nielsen and Arbitron provide. The FTC found that the proposed merger would eliminate their future competition.[162] In order to compete in the market for cross-platform audience measurement services, a firm must have access to data with individual demographics.[163] The FTC required Nielsen to divest assets and license certain data for a minimum period of eight years related to Arbitron's cross-platform audience measurement to an approved buyer. This concerned television, radio and calibration panel data in such a form and at such frequency as reasonably requested by the buyer.[164] This should enable the buyer to successfully develop a cross-platform service to compete with Nielsen/ Arbitron.[165] In fact, certain assets were licensed to the competitor comScore.[166]

[155] The Dun & Bradstreet Corporation, FTC File No. 091 0081, Docket No. 9342 (2010).

[156] *See id.*, p. 12.

[157] *See* Federal Trade Commission (2010).

[158] *See* Fidelity National Financial, Inc., FTC File No. 091 0032, Docket No. C-4300 (2010); Fidelity National Financial, Inc., FTC File No. 131 0159, Docket Number C4425 (2014); also CoreLogic, Inc.'s acquisition of DataQuick Information Systems in 2014, where the FTC required CoreLogic to license to Renwood RealtyTrac (RealtyTrac) national assessor and recorder bulk data as well as several ancillary datasets that DataQuick provides to its customers, *see* Federal Trade Commission (2014b). For further cases, *see* Eisenach and Knable Gotts (2015), pp. 1881–1885; Besen (2020), pp. 63–88.

[159] *U.S. v. Thomson Reuters Corp.*, Case No.: 1:08-cv-00262 (D.C.C. 2008).

[160] U.S. Department of Justice (2008).

[161] Decision and order, Nielsen Holdings N.V., FTC Docket No. C-4439 (24 Feb 2014).

[162] FTC, Analysis of Agreement Containing Consent Order to Aid Public Comment, Nielsen Holdings N.V., FTC Docket No. C-4439 (2013).

[163] *See* Complaint, Nielsen Holdings N.V., FTC Docket No. C-4439 (24 Feb 2014), p. 3.

[164] *See* Decision and order, Nielsen Holdings N.V., FTC Docket No. C-4439 (24 Feb 2014), p. 6.

[165] *See* Sivinski et al. (2017), p. 212.

[166] *See* Federal Trade Commission (2014a).

4.2.2 Data Concentration as Advantage in Advertising Markets

The 2008 acquisition of DoubleClick by Google was also subject to merger review in the U.S.[167]Amongst other things, the FTC inquired into conglomerate effects[168] and the potential effects of foreclosure based on the combination of Google's and DoubleClick's data. However, the FTC approved the acquisition and argued that neither the data available to Google, nor the data available to DoubleClick would constitute an essential input to a successful online advertising product.[169] It also noted that Google's competitors have at their disposal valuable stores of data not available to Google.[170]

Also, with regard to Microsoft's acquisition of the search engine Yahoo! in 2010, the FTC found that the transaction would increase competition in the market and stressed that access to a larger data pool may enable more rapid innovation of potential new search-related products and algorithms.[171]

The WhatsApp acquisition by Facebook was also approved by the FTC in 2014 some weeks before the European Commission cleared the merger. The FTC followed the premise that Facebook will not use WhatsApp's user information for advertising purposes or sell it to a third party for commercial or marketing use without the users' consent. Also, Facebook guaranteed that it would continue to operate as a separate company[172]– which ultimately was not the case. In 2020, however, the FTC – as well as a number of U.S. State Attorneys General – sued Facebook for violation of Sec. 2 Sherman Act.[173,174] One of the allegations is that Facebook has harmed competition and maintained its monopoly power in the social networking market through its acquisitions of Instagram and WhatsApp.

A notable case in the U.S. that also concerned data advantages with regard to digital advertising markets took place in 2012, when Bazaarvoice acquired PowerReviews, its primary competitor in the market for online product ratings and review platforms. The DoJ successfully opposed the acquisition two years later.[175] The court found that the acquisition would amplify Bazaarvoice's access to "consumer behaviour data and brings significant opportunities for syndication, advertising, and data".[176] It held that there were typically no available substitutes for such dynamic data so that the new entity would control enough such data to

[167] *See* FTC Statement, Google/DoubleClick, File No. 071-0170 (20 Dec 2007), pp. 12–13.

[168] *See* Witt (2022), p. 224, who remarks that this enquiry into conglomerate effects remained the exception in the U.S.

[169] *See* FTC Statement, Google/DoubleClick, File No. 071-0170 (20 Dec 2007).

[170] *See* FTC Statement, Google/DoubleClick, File No. 071-0170 (20 Dec 2007).

[171] *See* U.S. Department of Justice (2010).

[172] *See* Rich (2014).

[173] Sherman Antitrust Act of 1890 (26 Stat. 209, 15 U.S.C. §§ 1–7).

[174] Complaint for Injunctive and Other Equitable Relief, *FTC v. Facebook, Inc.*, Case No. 1:20-cv-03590 (D.D.C., 9 Dec 2020).

[175] *U.S. v. Bazaarvoice, Inc.*, Case No. 13-cv-00133-WHO.

[176] *U.S. v. Bazaarvoice, Inc.*, Case No. 13-cv-00133-WHO, 2014 WL 203966 (N.D. Cal., 8 Jan 2014), para. 83.

foreclose rivals.[177] The court ordered that Bazaarvoice must divest all acquired assets of PowerReviews, including the data.[178]

4.2.3 Data Advantage as Market Entry Barrier

In 2010, and therefore early compared to the EU, the DoJ enquired into merger-induced data advantages which are key to reaching incontestable positions in other markets. In the acquisition of Live Nation by Ticketmaster Entertainment in 2010, the DoJ required data access as a behavioural remedy, which has been designed as a portability right. Ticketmaster is the world's largest ticketing company. Live Nation is the world's largest promoter of live concerts but has also started to enter the market for ticketing. The DoJ raised horizontal and vertical concerns about the competitive effects of the acquisition and required structural and behavioural remedies.[179] The DoJ identified data to play a critical role for other ticketing services being able to compete with Ticketmaster.

To prevent the anticompetitive abuse of Ticketmaster's unique ticketing data,[180] the DoJ required the merged entity to provide clients with their "ticketing data". This includes financial data relating to a ticketing client's events, number of tickets sold, proceeds from those sales for a specific event, ticket inventory, number and location of tickets that are sold, amount for which the tickets are sold, pricing, marketing and promotions run for the event, the sales as a result of marketing or promotions, and the status of the ticket inventory.[181] This also includes "ticket buyer data", meaning non-public identifying information for ticket buyers (including, name, phone number, e-mail address, and mailing address), but not data that are collected through other means (e.g. website tracking, user group surveys or public sources).[182] In particular, if clients choose to use another ticketing service, the merged entity is required to provide the client "with a complete copy of all Client Ticketing Data and all Ticket Buyer Data historically maintained by Defendants for such venue(s) in the ordinary course of business, in a form that is reasonably usable by the client" within 45 days.[183] In 2020, the consent decree was modified and extended until 2025, because some conduct remedies – albeit not with regard to the data access commitment – have been proven as ineffective against anticompetitive conduct.[184] Also, the amendments of 2020 prescribed the appointment of an independent monitoring trustee.[185]

[177] *See* Sivinski et al. (2017), p. 212.

[178] *See U.S. v. Bazaarvoice, Inc.*, No. 13-cv-00133 WHO (N.D. Cal. 2 Dec 2014), p. 2.

[179] In detail, *see* Coleman and Weiskopf (2020).

[180] *See* Coleman and Weiskopf (2020), p. 5.

[181] *See U.S. v. Ticketmaster Entertainment, Inc.*, Case No. 1:10-cv-00139 (D.D.C., 30 July 2010).

[182] *See ibid.*

[183] *See ibid.*

[184] *See U.S. v. Ticketmaster Entertainment, Inc.*, Case No. 1:10-cv-00139-RMC, Doc. 22 (D.D.C., 28 Jan 2020).

[185] *See U.S. v. Ticketmaster Entertainment, Inc.*, Case No. 1:10-cv-00139-RMC, Doc. 29 (D.D.C., 28 Jan 2020), pp. 14–16.

4.2.4 Data and Input Foreclosure

Also comparatively early, the DoJ dealt with data and input foreclosure. In 2011, Google acquired the airfare pricing and shopping software developer ITA.[186] ITA supplied an airline schedule database and seat availability to various online travel intermediaries as an input for their own products.[187] ITA delivered accurate and almost instant results to its customers because it was able to access, aggregate, and reconfigure the data and use cached outcome data.[188] The DoJ was concerned that by acquiring ITA, Google would be able to foreclose rivals (other flight search services) from some important input data. Therefore, the DoJ requested a behavioural commitment by Google. For five years, Google must continue to license the database, including updates, to third parties on FRAND terms.[189] To this day, this case remains the only formal challenge to an acquisition by the "Big Five" by U.S. authorities.[190]

Currently, the DoJ is still reviewing the acquisition of Fitbit by Google, which was completed in January 2021.[191]

5 Reform Prospects of Merger Review and Policy Recommendations

5.1 Overview

Merger policy regarding data-related business models is the subject of ongoing policy reform in the context of the larger debate around mergers in digital markets and killer acquisitions. Currently options are already being considered in different European countries and the EU, ranging from preliminary consultations to legislative proposals before the parliaments. Sect. 5.2 outlines a variety of proposals and priorities for reform, particularly the policies in the United Kingdom (U.K.), France, Germany, the EU, and the U.S. Taking these proposals into account and considering the previous analysis of data-related mergers, Sect. 5.3 discusses further policy options and concludes with recommendations.

Given the current evidence, it indeed appears advisable to strengthen merger review, especially with regard to data-driven markets and ecosystems.[192] In particular, the German legislature should consider accommodating the effects of data-related mergers on competition by modifying merger review at least within the scope of Sec. 19a GWB. At the same time, the EU legislature should consider reforms of EU merger review. As a general caveat, proposals have not yet reached a satisfying level of conceptual refinement that would eliminate doubts about their

[186] *U.S. v. Google Inc. and ITA Software, Inc.*, Case No. 1:11-cv-00688 (RLW).

[187] *See* Sivinski et al. (2017), p. 212.

[188] *See* Sivinski et al. (2017), p. 213.

[189] *See U.S. v. Google Inc.*, Case No. 1:11-cv-00688 (RLW), (D.D.C., 8 Apr 2011), pp. 13–14.

[190] *See* Witt (2022), p. 223.

[191] *See* Feiner (2022).

[192] *See also e.g.* Van den Boom and Samranchit (2022), pp. 365–371.

effective applicability by competition authorities. While economic evidence for adequately conceptualising the legal framework for mergers is increasing, a recalibration of the merger review framework would still need further, more targeted inquiry and consultation.

5.2 Spectrum of the Current Reform Debate

5.2.1 EU Level

At the EU level, the Art. 22 EUMR Guidance and Art. 14 DMA (see Sect. 2.1) were notable measures which concern an update of merger review. Currently ongoing is the European Commission's revision of the Implementing Regulation and the European Commission Notice on Simplified Procedure.[193] This aims to lower administrative burdens. However, this neither specifically affects competition in digital markets nor does the European Commission generally plan to change the substantive rules of the EUMR as such. In this regard, the European Parliament has lately reaffirmed that data are key when it comes to digital markets,[194] and calls on the European Commission to consider revising the merger guidelines[195] as well as taking "a broader view when evaluating digital mergers and to assess the impact of data concentration".[196]

Furthermore, the European Commission has gathered evidence on the revision and updating of its market definition notice.[197] It aims to revise the Market Definition Notice of 1997,[198] not least to consider the peculiarities of "digital markets, in particular with respect to products or services marketed at zero monetary price and to digital 'ecosystems'" as well as "non-price competition (including innovation)".[199] In particular, the draft revised Market Definition Notice of 8 November 2022 explicitly addresses guidance in relation to market definition in digital markets, for example multi-sided markets and "digital eco-systems".[200]

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193 *See* European Commission, Merger policy package of 26 May 2021: Evaluation and follow-up actions, https://ec.europa.eu/competition-policy/public-consultations/2021-merger-control_en (accessed 17 Dec 2022). In a first public consultation, the European Commission gathered information about the simplification of merger control procedures, *see* https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12957-Revision-of-certain-procedural-aspects-of-EU-merger-control/public-consultation_en (accessed 17 Dec 2022). The European Commission launched a new public consultation, open from 6 May 2022 until 3 June 2022, regarding a further simplification of the procedures, *see* https://ec.europa.eu/competition-policy/public-consultations/2022-merger-simplification_en (accessed 17 Dec 2022).

194 *See* European Parliament (2022), para. 63.

195 *See* European Parliament (2022), para. 59.

196 *See* European Parliament (2022), para. 65.

197 *See* findings in European Commission (2021), SWD (2021) 199 final.

198 OJ 1997 C 372, 5.

199 *See* European Commission (2021).

200 *See* European Commission (2022b).

5.2.2 United Kingdom

The U.K. has expressed on various occasions that merger review should be tightened. Quite influentially, the U.K. Furman report of March 2019 suggested that "merger assessment in digital markets needs a reset" and has given comprehensive advice.[201] The Lear report of May 2019[202] has extensively assessed merger practice in digital markets in the U.K. The findings of both reports are reflected in the revised merger guidelines, which the CMA adopted in March 2021.[203] The revisions aim to prevent under-enforcement of merger review, especially in relation to digital markets, and to improve the CMA's tools to address situations in which buyers strategically buy up competitors (killer acquisitions). Amongst other things, the guidelines stipulate a wide margin of appreciation and an increased focus when assessing evidence on the future development of competition, to explicitly consider non-price competition (e.g. the level of privacy offered to users of digital services), and outline a more flexible approach to market definition.

Moreover, the Furman report was followed by the establishment of the Digital Markets Taskforce, which provided advice on a pro-competition regime for digital markets in December 2020.[204] It suggested a new regime for firms with "strategic market status" (SMS), which would also include a mandatory notification system and reporting obligations as well as a lower standard of proof for finding substantially lessened competition at Phase 2.[205] Subsequently, the Digital Markets Unit (DMU) within the Competition and Markets Authority (CMA) was formally set up in 2021. Amongst other things, the DMU develops a legislative framework for a new digital markets regime,[206] and it should enforce new rules on companies with SMS on digital markets. However, the U.K. legislature still needs to put such a new regulatory regime in place and grant the DMU powers beyond the existing capabilities of the CMA. Legislation is not expected before 2023. In May 2022, the government further outlined the possible monitoring and enforcement abilities this legal regime may take up.[207] It confirmed that companies that will be assigned an SMS have to report their most significant merger transactions to the CMA prior to their completion. At the same time, the government announced not to further pursue proposed changes to the Phase 2 merger review threshold.

5.2.3 France

Also in France, reforming competition law and merger review with regard to digital markets has been controversial for some time. Currently, the French legislature is discussing an amendment to the national merger rules. Comparable to Sec. 19a

[201] *See* Furman et al. (2019), p. 93.

[202] Argentesi et al. (2019).

[203] *See* Competition and Markets Authority (2021).

[204] *See* https://www.gov.uk/cma-cases/digital-markets-taskforce (accessed 17 Dec 2022).

[205] *See* Furman et al. (2019), pp. 89–102.

[206] *See* Levy et al. (2021).

[207] *See* DCMS and BEIS (2022).

GWB, the proposal of the Senate[208] suggests designating undertakings with outstanding market positions as "*entreprises structurantes*". Such undertakings should be obliged to report prior to a transaction any merger that would impact the French market. In case the Autorité de la Concurrence decides to initiate an in-depth examination of such transaction, the proposal stipulates a reversal of the burden of proof: *entreprises structurantes* must provide evidence that the transaction is not likely to harm competition. The chances of political consensus remain open. A similar proposal was rejected in the Assemblée Nationale in October 2020.[209] Besides criticism on the matter, the reform was also postponed with the motivation of achieving a uniform EU solution. However, after the "small scope" of Art. 14 DMA and the controversial referral mechanism under Art. 22 EUMR, the debate on national reforms will continue. Moreover, the Autorité de la Concurrence has considered additional reform avenues, such as introducing alternative thresholds or empowering the Autorité de la Concurrence to require the parties to notify a concentration ex ante or ex post under specific conditions.[210]

5.2.4 Germany

In Germany, the "Kommission Wettbewerbsrecht 4.0" enquired into the thresholds and referral systems, the prospects of an ex-post control regime and proposed guidance for acquisitions of start-ups by dominant players.[211] Yet, the subsequent 10th Amendment to the GWB has not addressed killer acquisitions; instead it has been declared to pursue tighter rules at the EU level. In its joint statement with the CMA and ACC of April 2021,[212] the Bundeskartellamt called for a more rigorous approach in blocking mergers and preferred structural over behavioural remedies.[213] The statement also calls for questioning the presumption that mergers are generally efficiency-enhancing, pointing to the competition authorities' experience that merging firms tend to overstate the benefits while competitors, customers and consumers are less engaged in the merger review procedure.[214] One month later, the German Government made clear its negotiating position for the DMA, considering the European Commission's proposal of Art. 12 DMA (which then became Art. 14 DMA) as a possibility to modify the merger control system under the EUMR by introducing value-based thresholds and adapting the substantive requirements to address killer acquisitions.[215]

[208] Version which was submitted to the Assemblée Nationale, the relevant proposals being: Proposition de loi Nr. 62, 19 février 2020 (Sénat: 48, 301 et 302 (2019–2020)).

[209] Draft Legislation (projet de loi Ddadue) 2020, Initial Proposal of the Government: Projet de loi Nr. 314, 12 février 2020. Proposal for amendment of the Senate on Art. 4: Projet de loi Nr. 120, 8 juillet 2020 (Sénat: 314 rect. bis, 552, 553 et 548 (2019–2020)).

[210] *See* Autorité de la concurrence (2020).

[211] *See* Bundesministerium für Wirtschaft und Energie (2019), pp. 65–71.

[212] Competition and Markets Authority et al. (2021).

[213] Competition and Markets Authority et al. (2021), para. 16.

[214] Competition and Markets Authority et al. (2021), paras. 9, 12, 14.

[215] *See* Franck et al. (2021).

5.2.5 The U.S. Debate

In the U.S., there is a comprehensive policy discussion on whether the merger guidelines are up-to-date. In January 2022, the FTC and DoJ announced the launch of their agencies' comprehensive joint review of the current horizontal and vertical merger guidelines.[216] Amongst other things, the agencies inquired into whether they should analyse mergers involving digital markets and "special characteristics markets" differently from other markets, including market definition, theory of harm, market tipping and network effects, zero-pricing, data-aggregation as a motive or effect, interoperability and competition for attention.[217] After a 90-day period of public comments and the hosting of listening forums,[218] the FTC and DoJ are now considering issuing revised draft guidelines for public comment.[219] The outcome remains to be seen, but a clear policy trend towards tightening merger review is visible: DoJ Assistant Attorney General Jonathan Kanter has announced moving practice towards litigation rather than settlement negotiations.[220] Moreover, FTC Chair Lina Khan mentioned that the use of presumptions as well as nascent competition and how to update the conceptual framework of the guidelines to account for digital markets are issues to be considered.[221]

5.3 Discussion of Policy Options

5.3.1 Towards Stricter Merger Review

The mentioned policy discussions reveal a clear trend across jurisdictions: merger review should be tightened to fill gaps and prevent systemic under-enforcement.[222] Also, in practice, the CMA's order to unwind Meta's acquisition of Giphy[223] as well as the controversial review outcomes and merger decisions in Meta/Kustomer and Google/Fitbit suggest that merger review needs to be updated. The debate on merger policies and enforcement goes hand in hand with a lively academic discourse regarding merger review in digital markets[224] and data-driven mergers in

[216] *See* U.S. Department of Justice, U.S. Federal Trade Commission (2022a, b, c, d) Request for Information on Merger Enforcement, https://www.ftc.gov/policy/studies/submit-comment-merger-enforcement-request-information (accessed 17 Dec 2022).

[217] *See id.*, pp. 7–8.

[218] Listening forums took place between March and May 2022; for details, *see* Federal Trade Commission (2022b); the forum specifically dedicated to mergers in the technology sector was set for 12 May 2022, *see* Federal Trade Commission (2022d).

[219] *See* Federal Trade Commission (2022c).

[220] *See* Kanter (2022).

[221] *See* Federal Trade Commission (2022a).

[222] Overview in OECD (2020); De Sousa and Pike (2020), pp. 26–36.

[223] *See* Killeen (2022).

[224] *See* Kwoka (2020), pp. 109–117, on mergers in the tech sector; questioning whether merger review is the right place, *see* Cabral (2021), 100866; regarding the U.K., *see* Furman et al. (2019), paras. 3.32–3.108; Parker et al. (2021), p. 1307. *See also* Franck et al. (2021), who evaluate options to strengthen control of acquisitions by digital gatekeepers before the background of the internal market competence under Art. 114 TFEU.

particular.[225] There is increasing empirical evidence on troublesome competitive effects and the gaps in current merger review regimes.[226] Much research has dealt with the legal framework for reviewing acquisitions by big tech and for killer acquisitions in particular.[227] However, identifying killer acquisitions in reality appears complex and evidence is still limited.[228] While not in the focus of this article, it is worth mentioning that another strand of academic discourse concerns the interrelation between data protection/privacy and competition law.[229] Particularly in the context of merger control, privacy can be a parameter of competition,[230] but also data protection rules can play a role in the competitive assessment,[231] as well as in designing effective data access remedies.[232]

The main argument for a more restrictive stand on merger review in digital markets refers to the higher social cost of an incorrect clearance in digital markets as compared to traditional markets, due to high concentration/network effects and barriers to entry.[233] So even if there are efficiency gains in the short run, there is a risk of market tipping in the long run due to data externalities and network effects.[234]

Combining these rather general findings with the enquiry into data-related mergers, the following analysis discusses possible policy options for the German and the EU legislature with regard to merger review. After looking at data-related remedies (under Sect. 5.3.2), more general aspects of the referral system (under Sect. 5.3.3) and notification thresholds (under Sect. 5.3.4) are discussed, before outlining means to advance the substantive criteria for merger review in Germany (under Sect. 5.3.5) and the implications for EU merger review (under Sect. 5.3.6).

5.3.2 Remedies and Data-Related Mergers in the EU

As has been shown, it is highly controversial whether merger review should move from structural towards behavioural remedies. Especially the recent remedy practice of the European Commission in BMW/Daimler, Google/Fitbit and Meta/Kustomer

[225] For a recent overview of the literature, *see* Chen et al. (2022), pp. 8–9.

[226] *See* Affeldt and Kesler (2021), p. 471, who find that half of the acquired apps by GAFAM are discontinued, and continued apps become free of charge but request more private/sensitive permissions for use; Argentesi et al. (2020), pp. 95–140, analyse the characteristics of almost 300 mergers in the U.K. by Amazon, Facebook and Google; Motta and Peitz (2021), 100868.

[227] *See* on "killer acquisitions", European Commission (2019), p. 111; Stuart (2021), pp. 407–436; for numbers of acquisitions by GAFAM companies, Witt (2022), p. 230; on post-merger break up, Ducci and Trebilcock (2020), p. 4.

[228] Gautier and Lamesch (2021), 100890, identify one killer acquisition out of a sample of 175; however, questioning the sufficiency of evidence, Wong-Ervin and Moore (2020), pp. 51–59.

[229] Early on, Lande (2008).

[230] *See e.g.* Chirita (2019), pp. 40–42 (of the pre-published working paper); *see* Bitton and Overton (2020), with regard to the U.S. debate and practice.

[231] *See* Batchelor and Janssens (2020), p. XV.

[232] *See* Kathuria and Globocnik (2020), pp. 511–534.

[233] *See* Argentesi et al. (2020), p. 13.

[234] *See* Chen et al. (2022), p. 21.

has stimulated the discussion.[235] Some regard the European Commission's recent decisions as a significant break with its previous practice of favouring structural remedies.[236] In general, one cannot observe a general trend: there is still a strong preference for structural remedies in merger control.[237] Nevertheless, views are split on the benefits and risks of moving towards behavioural remedies with regard to data-related mergers.

Proponents of a "more flexible and differentiated approach to remedies" argue that behavioural remedies could fit better than structural remedies if future market and business model developments are difficult to foresee and especially if the effects of structural remedies may be hard to predict.[238] In particular, access for third parties to data can be a suitable remedy, when the efficiencies are also gained through access of the merging entities to these data. Non-discriminatory access provisions can have a particularly far-reaching impact in aiming to protect a level playing-field and the quality of access for third parties,[239] so that competitiveness of whole markets should be preserved or even created. By this means, data sharing can prevent monopolisation and reverse short-term effects of the merger to mitigate the dynamic trade-off under certain circumstances – however, the effects considerably depend on policy and markets.[240] Against this background, Google/Fitbit may be regarded as a "test case for future mergers and acquisitions".[241]

Yet, such views face heavy criticism[242] and should indeed be regarded with caution. Ex-post evaluations in the U.K. have confirmed the superiority of structural over behavioural remedies, regarding the latter as more risky, complex and resource-intensive to design and monitor, and only being likely to work in a regulated environment, where aspects of monitoring can be delegated.[243] Moreover, the analysis does not indicate that behavioural remedies in the form of access or data separation have yet been proven to work in the case of data-related mergers. Rather, the evidence is still beginning,[244] and rather suggests not to make use of them.[245]

Doubts already concern the design of an effective remedy, considering that behavioural control runs against the natural interests of firms, but also taking into account that non-discrimination clauses and setting the price within the framework

[235] But, at least in the U.S., no clear tendency can be observed, *see* Kwoka and Valetti (2021), p. 1289.

[236] *See* Witt (2022), p. 228, referring to Google/Fitbit and Microsoft/LinkedIn.

[237] *See* Maier-Rigaud and Loertscher (2020), p. 7: in mergers between 2004–2018, structural remedies remained constantly at a high level (about 80%), while behavioural remedies have only slightly increased.

[238] For an overview, *see* Wilson (2020), p. 3.

[239] *See* Van Gerven et al. (2021).

[240] *See* Chen et al. (2022), p. 28.

[241] *See* NewsDesk (2021); Feasey and de Streel (2020), p. 40, stating that "the Commission may prefer data siloing over data sharing to remedy some competition concerns when two data-rich are merging".

[242] Rather sceptical, Kwoka and Valetti (2021), pp. 1286–1306.

[243] *See* Competition and Markets Authority (2019), paras. 1.4 and 1.5.

[244] Such as Google/Fitbit and Meta/Kustomer; the BMW/Daimler commitments should not be over interpreted, as they concerned a very narrow case and commitment.

[245] The Ticketmaster case also illustrates the ineffectiveness of conduct remedies – albeit not the data-related ones.

of access requirements are complex tasks.[246] What became apparent in the analysed cases is that the accepted data-related remedies were part of a larger bundle of commitments, all addressing specific concerns of harm. This poses the risk of "remedy fragmentation", meaning that behavioural commitments address different concerns with separate obligations, while being uncertain about their respective implementation and their future holistic effect on competition in digital markets.[247] The commitment practice appears even more troublesome given the unforeseeable, dynamic developments of digital markets. Ten years as the initial period of commitments in Google/Fitbit and Meta/Kustomer appears overly long, given that the BMW/Daimler case shows that, even within three years, markets can develop unexpectedly. Moreover, this practice reveals how the competition authority takes over the role of a regulator when enforcing and updating the commitments, de facto regulating particular markets or even fine-steering the companies.[248] This appears troublesome, not least because data access should be subject to holistic sectoral regulation in case of market failure and not be introduced through the tempting backdoor of merger control on a case-by-case basis.

Effective monitoring and enforcement is a strong argument against behavioural remedies, or at least the biggest challenge. This is held to be a "daunting task in complex digital industries", and the consequence of enforcement failures is high, given that a data-related merger that was approved some years ago cannot be undone.[249] The Australian Competition and Consumer Commission rejected the Google/Fitbit commitments,[250] not least because it saw significant difficulties in effectively monitoring them and enforcing compliance.[251] The EU appears more confident in the viability of effective enforcement, considering that the EU Remedies Notice requires that workability of commitments must be fully assured by effective implementation and monitoring, and that they do not risk leading to distorting effects on competition.[252] This goes for the lifetime of the commitment.[253] As has been shown, the Google/Fitbit acquisition heavily relies on a monitoring trustee as well as on Sentinel as a technical expert. Involving technical experts is held to be well suited to resolving technical issues or issues that require expert knowledge, which is especially the case in access remedies,[254] but it has been done rather rarely so far.[255] Depending on the functions assigned to the expert, this can also substitute arbitration.[256] Sentinel faces challenges for mastering the task,

[246] *See* Pittman (2020), p. 3.

[247] Not least if the monitoring of the remedies only assesses the remedies in an isolated manner.

[248] *See* Picht (2022), Sec. 40 GWB, para. 68; critical in this regard, Federal Trade Commission (2021b).

[249] *See* Chen et al. (2022), p. 7.

[250] *See* Van Gerven et al. (2021); Australian Competition & Consumer Commission (2020b).

[251] *See* Waters (2020); as the transaction had been completed meanwhile, the matter remains an ongoing enforcement investigation in Australia, *see* Australian Competition & Consumer Commission (2020a).

[252] *See* OJ 2008 C 267, 1, para. 17.

[253] *See* Van Gerven et al. (2021).

[254] *See* Vande Walle (2021), pp. 84–85.

[255] *See* Vande Walle (2021), pp. 84–86.

[256] *See* Vande Walle (2021), p. 85.

such as advancement of technical requirements, privacy and complaints.[257] Nevertheless, the information asymmetry between enforcers and companies provides a high potential for circumvention and ineffective enforcement, while its negative consequences cannot be easily reversed.

For these reasons, competition authorities should treat data-related merger remedies in the form of behavioural commitments with utter caution and rather abstain from "experimenting" in this regard. This is especially true for data access and interoperability obligations, which naturally run against the interests of the merged entity. As for data separation commitments, it appears particularly troublesome that in Google/Fitbit Google will indeed remain as the holder of the data but commits to not using the data for particular purposes. Commissioner Vestager has expressed that such a remedy would come closer to a structural than behavioural remedy, as she calls it a "quasi-structural" remedy, which is guaranteed by technical solutions.[258] However, this view tends to overlook the problem of such data separation, which is that "the dominant tech companies have the very properties that makes rules and remedies less likely to work".[259] A separation commitment would only approximate structural remedies (and is therefore worth being considered) if the data as such are held by an independent third party and made available to Google for specific designated purposes.[260] In this regard, fully separated data intermediaries[261] as data holders can mitigate some concerns, especially if they are able to control that Google indeed only uses the data for legitimate purposes. In this case, they could lower information asymmetries and discretion for the anticompetitive conduct of the merging entities, and lower transaction costs because technological solutions and monitoring are put "in the same hand". However, it remains a case-specific and open question to what extent this is viable in terms of technical governance and whether this would still incentivise the merger.

What are the implications for the advancement of the legal framework? In general, remedy practice lies within the discretion of the competition authorities within their mandate, and the European Commission would be free to abstain from such practice in future. In contrast, German merger legislation explicitly prohibits the Bundeskartellamt from accepting behavioural commitments which would subject the conduct of the undertakings concerned to continued control, such as in Meta/Kustomer and Google/Fitbit.[262] As for data separation, the hurdles should be high in a sense that a commitment to separate the data holding should only be regarded as a structural remedy if the data are solely held by an independent third entity. In that case, such commitment could be considered as legitimate under

[257] *See* NewsDesk (2021).

[258] Vestager (2021).

[259] *See* Kwoka and Valetti (2021), pp. 1286–1306.

[260] *See also* Bourreau et al. (2020), pp. 9–10, who outline that more restrictions/more differentiated set of restrictions might be necessary. But they ultimately reject that remedies should be imposed at all.

[261] This would reach beyond the DGA's requirement of structural unbundling.

[262] Sec. 40(3), S. 2 GWB.

German law, while it would be feasible under the current EU merger regime without doubt.

Nevertheless, the legislature should consider going a step further. In fact, the possibility and practice of accepting behavioural commitments can take away negotiating power from the competition authorities, as it has to be considered as a proportionate measure vis-à-vis blocking the merger as the "safe" option. This is particularly problematic in the case of acquisitions by big tech players, where the risks of failing behavioural commitments are considerably higher due to the systemic relevance of potential tipping and monopolisation. Moreover, data access obligations aim to establish a level playing-field. However, this presumes that other companies would have the capabilities to analyse the data compared to the big tech acquirer. This is often not true in reality,[263] but insufficiently taken into account when accepting the commitments.

For all these reasons, the legislature could demand that behavioural commitments may not be accepted in data-related mergers and especially data-driven mergers that involve big tech players. Such prohibition could become a building block of a merger regime specifically designed for and linked to gatekeepers under the DMA and undertakings of paramount significance for competition across markets according to Sec. 19a GWB (see Sect. 5.3.5). This does not contradict the finding that behavioural commitments appear more likely to be accepted and successfully implemented in regulated industries where a government body can monitor market conditions.[264] While indeed the DMA and Sec. 19a GWB are about to establish such a regulatory environment for gatekeepers, which may also increase the likelihood of successful monitoring of behavioural commitments, the context of merger review – as opposed to abuse of dominance scenarios – must not be overlooked: it is about the risk of enabling the strengthening of an already dominant market position or increasing the likelihood of market tipping, while not being able to properly unwind the approved merger with all its negative consequences on competition and innovation. In such cases, the legal framework on merger review should not allow the risk of under-enforcement.

5.3.3 Insufficiency of Notice and Referral Under Art. 22 EUMR/Art. 14 DMA

It is doubtful whether national referrals to the European Commission under Art. 22 EUMR are legitimate in cases where a transaction would not be notifiable under national and EU legislation. This question is currently pending before the CJEU to be finally clarified.[265] But regardless of the outcome, this approach seems less than optimal because it ultimately leaves enforcement practice to the eagerness of the Member States to refer the case. The practice of the Bundeskartellamt to abstain from below-threshold referrals exemplifies that merger enforcement is then subject to fragmentation and rather arbitrary outcomes. Moreover, the approach does not

[263] *See* Bourreau et al. (2020), p. 3.

[264] *See* Wilson (2020), p. 2.

[265] Case ECLI:EU:T:2022:447, T-227/21 – *Illumina v Commission*; currently pending before the CJEU, C-611/22 P.

appear sufficient, because it does not change the legal standard of review but just broadens the scope of the cases that come under scrutiny.[266]

For a similar reason, the effect of Art. 14 DMA should not be overestimated. On the one hand, it may provide relevant information on the transactions of gatekeepers to national authorities and increase transparency. Ideally, Art. 14 DMA enables control over a merger and also increases awareness about "killer acquisitions" at an early stage. However, on the other hand, Art. 14 DMA presupposes the legitimacy and eagerness of national authorities to refer non-notifiable mergers under Art. 22 EUMR. Moreover, it also demands that all the referral requirements of Art. 22 EUMR be met, while it eventually does not affect the substantive standard for review.[267]

5.3.4 Limited Potential of Revising National Thresholds for Merger Review

Not least when considering the context of the referral procedure, (further) lowering the national merger thresholds would not only be a means to extend the scope of cases that would fall under national merger review, but it would also open up the possibility of referring the cases to the European Commission under Art. 22 EUMR. The German legislature could pursue this path and enquire into decreasing the threshold transaction value, e.g. down to EUR 200 million,[268] which is already the case in Austria.[269] However, it remains open to what extent critical transactions would indeed be covered that have so far been under the radar of competition authorities. The effects of the 9th Amendment do not bear any indications: while they extended the scope of cases under scrutiny of German merger control,[270] only four of them concerned the tech sector from 2017–9/2020,[271] and there were neither Phase-2 cases nor was any merger blocked or identified as a "killer acquisition".[272] While further lowering the threshold could be a reasonable means to generate more evidence, it would not have an impact on the substantive criteria for merger review.

5.3.5 Advancing Substantive Criteria for Merger Review in Germany

The analysis revealed that such mergers are of particular interest in which the source of data is the interaction with existing and potential customers,[273] and machine-generated data such as location data.[274] Unlike rather clear-cut data-related cases

[266] Also, the EP does not see it as sufficient and calls for clarification as to its applicability, *see* European Parliament (2022), para. 64.

[267] There were valid concerns that the DMA would lack competence in doing so; for an assessment, *see* Franck et al. (2021).

[268] Alternatively, the transaction value threshold could be reduced to €100 million, to collect more case evidence, and could then be raised again once the knowledge base has increased.

[269] *See* Podszun (2022), p. 15.

[270] *See* Deutscher Bundestag (2021).

[271] *See* Deutscher Bundestag (2021), p. 4.

[272] *See* Deutscher Bundestag (2021), p. 5.

[273] Such as in Facebook/Whatsapp, Microsoft/LinkedIn, Apple/Shazam and Google/Fitbit.

[274] *See* Google/Fitbit.

which refer to dataset providers and information services,[275] these cases of data-driven mergers have been performed by undertakings that are highly likely to be covered by Sec. 19a GWB, so that the relevance of Sec. 19a GWB becomes apparent in this context. The common denominators are the economic criteria outlined in Sec. 18(3a) GWB, which are relevant for designating undertakings as being of paramount significance for competition across markets under Sec. 19a(1) GWB. Therefore, this analysis enquires into the potential and means to advance substantive criteria for merger review in Germany within the scope of Sec. 19a(1) GWB. The relationship to EU merger review will be addressed subsequently (under Sect. 5.3.6).

Within the framework of Sec. 19a GWB, the substantive test for more effective merger enforcement could be adjusted and would therefore enable stricter and more targeted enforcement.[276] It would follow a specified enquiry into the positive and negative effects on competition and innovation in data-driven mergers.[277] In this regard, various aspects have been discussed, but putting them into legislation would need more evidence and conceptual refinement. In addition to the harder stand on remedies as outlined above, the legislature could consider some of the following issues.

As for the theory of harm, it is important to enquire into the details of how data are and could be used by the merged entity and to understand the cross-market, meaning conglomerate, effects of data-driven mergers. Economic evidence is still just at the beginning[278] and appears very case-specific.[279] To identify potential harm and the loss of potential competitive restraints, an assessment is needed of how the merger would change the incentives and abilities to compete of those companies that are left in the market.[280] Within this framework it is challenging to identify the strategy, e.g. whether the acquisition is undertaken to reinforce and increase market power by adding new functionalities to already existing products rather than to generate synergies or enter new markets.[281] To understand which role data play in this respect,[282] an overarching view is needed to identify the effects the merger would have on the whole "ecosystem", while an overly segmented view of the defined markets of conventional merger review runs the risk of overlooking impediments to competition. Another issue is how the assessment treats alternative sources of the data and substitutability.[283] This was decisive for some of the

[275] Such as Dun & Bradstreet and Thomson/Reuters.

[276] *See also* considerations in Bundeskartellamt (2022), pp. 19, 20, 39.

[277] *See* Bourreau and de Streel (2020), pp. 8–13.

[278] *See* Chen et al. (2022), p. 9.

[279] *See* Motta and Peitz (2021), 100868, p. 30 (of the pre-published working paper), on the theory of harm with regard to conglomerate mergers and the collection of data.

[280] *See* De Sousa and Pike (2020), p. 29.

[281] *See* Gautier and Lamesch (2021), pp. 29–30 (of the pre-published working paper), who identify this in the majority of cases, however also pointing out the limitations of their empirical analysis.

[282] *See also* Graef (2018), pp. 85–88, pointing out the relevance of the value of the sort of data involved, the availability, and the role and scale in machine learning.

[283] On the closeness of substitution between big datasets, which requires an extended assessment, Maier (2019), pp. 246–252; Graef (2018), p. 85.

analysed decisions on data-driven mergers, as well as the pertinent question whether data have already been traded prior to the merger.[284]

To take such a broader view into account, the current application of the SIEC test would need some modification. In particular, the legislature would have to specify the standard that must be met for clearing or blocking the merger. As for the measure of prohibition, it is key to determine the circumstances under which a "significant" impediment is presumed, and a dominant position is found to be strengthened. While the legal standard of the SIEC test is generally controversial,[285] the test within the framework of Sec. 19a GWB would put more emphasis on the scale of potential harm of a merger in addition to the probability.[286] Regarding data access in particular, the legislature could consider two options. As a first option, a merger could be presumed to pose impediments to effective competition (and therefore be blocked) if it enabled an undertaking under Sec. 19a GWB to acquire more or new data, or if it would make data collection more efficient. This presumption could be based on the observation that for such undertakings data may function as "general-purpose input", which generally increase their discriminating power.[287] It would also account for the observation that in many cases initial short-term consumer benefits that are visible (e.g. lower prices) are driven by the undertaking's pricing strategy to increase the data scale of the acquirer rather than passing on efficiency gains to consumers.[288] A second, more differentiated presumption would be particularly sceptical of acquisitions that involve services/ products that complement each other. It has been argued that especially if the consumption synergy is high between using the product from one market and another market (now both under the umbrella of the merged entity), the likelihood of monopolisation of both markets (by foreclosure) is higher, so that blocking the merger would be reasonable.[289]

Corresponding to the modified substantive test, the burden of proof would need adjustment. Several commentators have suggested shifting the burden of proof in the context of tech mergers[290] to mitigate the information asymmetries between competition authorities and merging entities, and ultimately making it easier for competition authorities to block a merger.[291] Especially in cases where one of the merging parties has an entrenched dominant position (and therefore Sec. 19a cases), it would require the merging parties to provide evidence that the merger does not raise any significant competition issues or that expected efficiency gains are

[284] *See* De Cornière and Taylor (2020), pp. 24–25, arguing that a key determinant of the effect of the merger on consumer surplus is whether data can be traded in absence of the merger.

[285] On current and debatable judicature in the EU and Germany, *see* Bundeskartellamt (2022a), pp. 22–24.

[286] *See* Furman et al. (2019), pp. 100–101; on the discussion of the expected harm test, *see* OECD (2020), pp. 42–43.

[287] *See* Bourreau et al. (2020), p. 2.

[288] *See* Chen et al. (2022), p. 28.

[289] *See* Chen et al. (2022), p. 23.

[290] Or also more general with particular respect to killer acquisitions.

[291] *See e.g.* proposals to shift the burden of proof by Parker et al. (2021), pp. 1328–1330; Valletti (2021); Scott Morton et al. (2019), p. 111.

sufficiently large.[292] The legislature should consider this, but for making it operable a more differentiated approach is worth being considered to be applied in practice.[293] The concrete design would depend on the substantive changes to merger review that would have to be made regarding undertakings under Sec. 19a GWB.

Introducing a modified merger review for undertakings covered by Sec. 19a GWB requires thorough legislative integration into the fabric of the GWB. New sections that would modify the standard of merger review could be introduced in Sec. 35 *et seq*. GWB, e.g. a provision in a new Sec. 35(1b) GWB on the local nexus and threshold, modifications to the SIEC test as a new Sec. 36(4) GWB (also addressing the standard and burden of proof and the *de minimis* clause), possible modifications to the notification procedure under Sec. 39 GWB, etc.

These amendments should correspond to a general clause added to Sec. 19a GWB, which refers to these modifications. Within this framework, the legislature must decide whether the modified merger review would need an additional decision of the Bundeskartellamt under Sec. 19a(2) GWB to be "activated" or whether the modified rules would directly apply to all mergers of undertakings declared to be of paramount significance for competition across markets under Sec. 19a(1) GWB. The latter seems preferable, because the merger review procedure itself gives the competition authority the opportunity to examine the proposed merger, while the company can assert its rights and take legal action if needed within this procedure.

The challenge is to make it operable for the competition authority, while providing sufficient legal certainty to the undertakings.[294] While the legislature would have to address the substantive aspects, it is advisable that the Bundeskartellamt provides guidance to the affected undertakings.[295]

5.3.6 Merger Review in the EU

A tightening of the German merger review standard would not be a substitute for a needed reform of EU merger review. Such an ambitious endeavour should be pursued at the same time, not least considering that the U.S. has actively taken up on the policy debate. The diverging approaches and practices between European states make cooperation and the quest for EU-wide solutions a necessity. This is even more the case for data-driven mergers because, given the possible cross-market relevance of data, allowing the merger in one jurisdiction can also have an effect on markets in other jurisdictions in which the merger has been blocked. It can be agreed with the European Parliament, which has urged the European Commission "to take a broader view when evaluating digital mergers and to assess the impact of data concentration".[296] However, it is not supplemented by suggestions on how to do that.

[292] *See* Motta and Peitz (2020), p. 24; Scott Morton et al. (2019), p. 111.; with regard to the reform in Germany, Podszun (2022), p. 15.

[293] Proposed by De Sousa and Pike (2020), pp. 32–35.

[294] On approaches, *see* Nazzini and Carovano (2020), p. 44.

[295] Such as on merger thresholds, *see* Bundeskartellamt and Bundeswettbewerbsbehörde (2022).

[296] *See* European Parliament (2022), para. 65.

An open question is the nexus to gatekeepers under the DMA. The agreed solution on the DMA does not affect substantive merger review. Therefore, new solutions could now be found without the pressure to accommodate merger review within the framework of the DMA on a questionable legal basis.[297] The EU legislature still has the possibility to design rules on merger review which particular refer to gatekeepers under the DMA. In substance, Art. 14(1) DMA has already recognised the significance for mergers if they “enable the collection of data”. This would need further elaboration. Ideally, merger reform in the EU would address substantive review as such, including the relationship with national rules and notification thresholds,[298] and it would also require an update of the Merger Guidelines. However, such a reform would reach far beyond the questions of data-driven mergers and digital markets, and take considerably more time, critical analysis and consultation before implementation. In this respect, tightening merger review in the Member States within the well and narrowly defined scope of Sec. 19a GWB could also generate more evidence that is ultimately valuable for a major reform of merger review at the EU level.

6 Summarizing Conclusion

It has been shown that merger review regarding data-driven business models is the subject of ongoing reform debates in various jurisdictions. These debates are part of the larger discourse on mergers in digital markets, including so-called “killer acquisitions”. The current EU approach of relying on national referrals to the Commission under Art. 22 EUMR appears questionable and insufficient. Also, the future effect of Art. 14 DMA should not be overestimated. A lowering of the Sec. 35(1a) No. 3 GWB notification threshold in Germany – e.g. from EUR 400 million down to EUR 200 million – could at least enlarge the number of cases that would fall under German merger review and which could therefore potentially be referred to the EU Commission. This option should be discussed by the legislature.

More fundamentally, the legislature should consider updating and strengthening current merger review laws and enforcement with special regard to data-driven markets and digital ecosystems. Such a regulatory recalibration would need further, more targeted analysis and consultation. In particular, the German legislature should accommodate the particular effects of data-related mergers on competition, i.e. by modifying substantive rules on merger review with regard to undertakings of paramount significance for competition across markets according to Sec. 19a(1) GWB. In particular, this means that merger review should consider the effects the merger would have on the whole “eco-system” to avoid an overly segmented view of defined markets.

[297] The question is also not burdened by the question about the right legal competence under Art. 114 AEUV, *see* Franck et al. (2021).

[298] *See also* European Commission (2019), pp. 113–116; Gautier and Lamesch (2021), 100890; European Parliament (2022), para. 67; Bourreau and de Streel (2020), p. 15; Motta and Peitz (2021), 100868, p. 34 (of the pre-published working paper).

Such reforms should also be considered at the EU level. The current practice of the EU Commission to accept commitments on data access, data separation and interoperability in the course of merger proceedings should be revisited. Such behavioural commitments should not be acceptable in data-related mergers that involve big tech players. Future reforms at the EU level should consider introducing an explicit provision that would only allow structural remedies in such cases. In any case, the German government should advocate a reform of merger control at the EU level, which would address the substantive criteria for review in digital ecosystem cases, the relationship with national rules and notification thresholds, and which would also require an update of the EU Merger Guidelines, with particular attention to the conditions and effects of competition in data-driven markets.

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References

Affeldt P, Kesler R (2021) Big tech acquisitions—towards empirical evidence. J Eur Compet Law Pract 12:471–478

Antitrust Division U.S. Department of Justice (2020) Merger remedies manual. https://www.justice.gov/atr/page/file/1312416/download. Accessed 17 Dec 2022

Argentesi E et al (2020) Merger policy in digital markets—an ex-post assessment. J Compet Law Econ 17:95–140. https://doi.org/10.1093/joclec/nhaa020

Argentesi E, Buccirossi P, Calvano E, Duso T, Marrazzo A, Nava S (2019) Ex-post assessment of merger control decisions in digital markets. Document prepared by Lear for the Competition and Markets Authority. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/803576/CMA_past_digital_mergers_GOV.UK_version.pdf. Accessed 17 Dec 2022

Australian Competition and Consumer Commission (ACCC) (2020a) Google LLC—proposed acquisition of Fitbit Inc. https://www.accc.gov.au/public-registers/mergers-registers/public-informal-merger-reviews/google-llc-proposed-acquisition-of-fitbit-inc. Accessed 17 Dec 2022

Australian Competition & Consumer Commission (ACCC) (2020b) Statement of issues—Google LLC—proposed acquisition of Fitbit Inc. https://www.accc.gov.au/system/files/public-registers/documents/Google%20Fitbit%20-%20Statement%20of%20Issues%20-%2018%20June%2020b20.pdf. Accessed 17 Dec 2022

Autorité de la concurrence (2020) Contribution au débat sur la politique de concurrence et les enjeux numériques. https://www.autoritedelaconcurrence.fr/sites/default/files/2020-02/2020.02.28_contribution_adlc_enjeux_num.pdf. Accessed 17 Dec 2022

Batchelor B, Janssens C (2020) Big data: understanding and analysing its competitive effects. Eur Compet Regulatory Law Rev 4:XIII–XXII

Besen SM (2020) Competition, privacy, and big data. Cath U J Law Techn 28(2):63–88

Bitton DS, Overton LC (2020) U.S.—e-commerce and big data: merger control. https://globalcompetitionreview.com/guide/e-commerce-competition-enforcement-guide/third-edition/article/united-states-e-commerce-and-big-data-merger-control. Accessed 17 Dec 2022

Bobsguide (2008) FactSet research systems agrees to acquire a copy of Thomson Fundamentals database and related assets from Thomson Reuters. https://www.bobsguide.com/2008/04/23/factset-research-systems-agrees-to-acquire-a-copy-of-thomson-fundamentals-database-and-related-assets-from-thomson-reuters. Accessed 17 Dec 2022

Bourreau M, Caffarra C, Chen Z, Choe C, Crawford G, Duso T, Genakos C, Heidhues P, Peitz M, Rønde T, Schnitzer M, Schutz N, Sovinsky M, Spagnolo G, Toivanen O, Valletti T, Vergé T (2020) Google/Fitbit will monetise health data and harm consumers. https://cepr.org/voxeu/columns/googlefitbit-will-monetise-health-data-and-harm-consumers. Accessed 17 Dec 2022

Bourreau M, de Streel A (2020) Big tech acquisitions—competition and innovation effects and EU merger control. Centre on Regulation in Europe (cerre). Issue Paper Feb 2020

Bundeskartellamt (BKartA) (2015) BMW, Daimler and Audi can acquire Nokia's HERE mapping service. https://www.bundeskartellamt.de/SharedDocs/Meldung/EN/Pressemitteilungen/2015/06_10_2015_HERE.html. Accessed 17 Dec 2022

Bundeskartellamt (BKartA) (2017) Guidance on remedies in merger control. http://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Leitlinien/Guidance%20on%20Remedies%20in%20Merger%20Control.pdf?__blob=publicationFile&v=2. Accessed 17 Dec 2022

Bundeskartellamt (BKartA) (2022a) Fusionskontrolle im digitalen Zeitalter – Herausforderungen und Entwicklungsperspektiven, Hintergrundpapier des Arbeitskreises Kartellrecht. https://www.bundeskartellamt.de/SharedDocs/Publikation/DE/Diskussions_Hintergrundpapier/AK_Kartellrecht_2022a_Hintergrundpapier.pdf. Accessed 17 Dec 2022

Bundeskartellamt (BKartA) (2022b) Bundeskartellamt clears acquisition of Kustomer by Meta (formerly Facebook). https://www.bundeskartellamt.de/SharedDocs/Meldung/EN/Pressemitteilungen/2022b/11_02_2022b_Meta_Kustomer.html. Accessed 17 Dec 2022

Bundeskartellamt, Autorité de la concurrence (2016) Competition law and data. https://www.bundeskartellamt.de/SharedDocs/Publikation/DE/Berichte/Big%20Data%20Papier.pdf?__blob=publicationFile&v=2. Accessed 17 Dec 2022

Bundeskartellamt (BKartA), Bundeswettbewerbsbehörde (BWB) (2022) Leitfaden Transaktionswert-Schwellen für die Anmeldepflicht von Zusammenschlussvorhaben (Sec. 35 Abs. 1a GWB und Sec. 9 Abs. 4 KartG). https://www.bundeskartellamt.de/SharedDocs/Publikation/DE/Leitfaden/Leitfaden_Transaktionsschwelle.pdf;jsessionid=34E69CAD00376DBA20B0A0C59C59F701.1_cid381?__blob=publicationFile&v=7. Accessed 17 Dec 2022

Bundesministerium für Wirtschaft und Energie (BMWi) (2019) Ein neuer Wettbewerbsrahmen für die Digitalwirtschaft—Bericht der Kommission Wettbewerbsrecht 4.0. https://www.bmwk.de/Redaktion/DE/Publikationen/Wirtschaft/bericht-der-kommission-wettbewerbsrecht-4-0.pdf?__blob=publicationFile&v=14. Accessed 17 Dec 2022

Bundesministerium für Wirtschaft und Klimaschutz (BMWK) (2022) Entwurf eines Gesetzes zur Verbesserung der Wettbewerbsstrukturen und zur Abschöpfung von Vorteilen aus Wettbewerbsverstößen. https://www.bmwk.de/Redaktion/DE/Downloads/Wettbewerbspolitik/wettbewerbsdurchsetzungsgesetz-referentenentwurf-bmwk.pdf?__blob=publicationFile&v=4. Accessed 17 Dec 2022

Cabral L (2021) Merger policy in digital industries. InfEconPolicy 54:100866. https://doi.org/10.1016/j.infoecopol.2020.100866

Carugati C (2022) Merger review in the Digital Markets Act. Working paper of 18 August 2022. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4203210. Accessed 17 Dec 2022

Chen Z, Choe C, Cong J (2022) Matsushima: data-driven mergers and personalization. RAND J Econ 53:3–31

Chiavetta R (2021) How a "technical expert" factors into the Google-Fitbit acquisition. https://iapp.org/news/a/how-a-technical-expert-factors-into-the-google-fitbit-acquisition/. Accessed 17 Dec 2022

Chirita AD (2019) Data-driven mergers under EU competition law. In: Akseli O, Linarelli J (eds) The future of commercial law—ways forward for change and reform. Hart Publishing, Oxford, pp 147–184

Coleman MT, Weiskopf DA (2020) Non-self-enforcing remedies and the recent modification to the Ticketmaster/Live Nation merger consent decree. CPI Antitrust Chronicle April 2020

Competition and Markets Authority (CMA) (2019) Merger remedy evaluations—Report on case study research. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/811252/Merger_remedy_evaluations_2019.pdf. Accessed 17 Dec 2022

Competition and Markets Authority (CMA) (2021) Merger assessment guidelines. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1051823/MAGs_for_publication_2021_–_.pdf. Accessed 17 Dec 2022

Competition and Markets Authority (CMA), Australian Competition and Consumer Commission (ACCC), Bundeskartellamt (2021) Joint statement on merger control enforcement. https://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Stellungnahmen_Opinion/Joint_Statement_CMA_ACC_Bundeskartellamt.html?nn=3591568. Accessed 17 Dec 2022

De Cornière A, Taylor G (2020) Data and competition: a simple framework, with applications to mergers and market structure. CEPR Discussion Paper No. DP14446. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3547379. Accessed 17 Dec 2022

Department for Digital, Culture, Media and Sport (DCMS), Department for Business, Energy and Industrial Strategy (BEIS) (2022) A new pro-competition regime for digital markets—government response to consultation—a consultation outcome. https://www.gov.uk/government/consultations/a-new-pro-competition-regime-for-digital-markets/outcome/a-new-pro-competition-regime-for-digital-markets-government-response-to-consultation. Accessed 17 Dec 2022

De Sousa PC, Pike C (2020) Potential competition in merger control; how soon is now? Competit Law Policy Debate 6:26–36

Deutscher Bundestag (2021) Drucksache 19/26136. https://dserver.bundestag.de/btd/19/261/1926136.pdf. Accessed 17 Dec 2022

Ducci F, Trebilcock M (2020) Structural vs. behavioral remedies in big tech sectors 2020. CPI Antitrust Chronicle April 2020

Eisenach JA, Knable Gotts I (2015) Looking ahead—the FTC's role in information technology markets. George Washing Law Rev 83:1876–1901

European Commission (2021) Competition: Commission publishes findings of evaluation of Market Definition Notice. https://ec.europa.eu/commission/presscorner/detail/en/IP_21_3585. Accessed 17 Dec 2022

European Commission (2022a) Mergers: Commission clears acquisition of Kustomer by Meta (formerly Facebook), subject to conditions. https://ec.europa.eu/commission/presscorner/detail/en/ip_22_652. Accessed 17 Dec 2022

European Commission (2022b) Draft communication, Commission Notice on the definition of the relevant market for the purposes of Union competition law. https://competition-policy.ec.europa.eu/document/download/bbb4908a-0462-4bb5-9d35-c59bcb4e22a7_en. Accessed 17 Dec 2022

European Commission, Directorate-General for Competition, Crémer J, de Montjoye YA, Schweitzer H (2019) Competition policy for the digital era. Final report. https://data.europa.eu/doi/10.2763/407537. Accessed 17 Dec 2022

European Parliament (2022) Competition policy – annual report 2021. P9_TA(2022)0202. https://www.europarl.europa.eu/doceo/document/TA-9-2022-0202_EN.pdf. Accessed 17 Dec 2022

FactSet (2022) FactSet Fundamentals—data feed by FactSet. https://www.factset.com/marketplace/catalog/product/factset-fundamentals#: ~ :text=%20FactSet%20Fundamentals%20%201%20Overview.%20Take%20your,and%20technology%20solutions%20for%20investment%20professionals...%20More%20. Accessed 17 Dec 2022

Feasey R, de Streel A (2020) Data sharing for digital markets contestability, towards a governance framework, report for Centre on Regulation in Europe (cerre). https://cerre.eu/wp-content/uploads/2020/09/CERRE_Data-sharing-for-digital-markets-contestability-towards-a-governance-framework_September2020.pdf

Federal Trade Commission (2010) Dun and Bradstreet settles FTC charges that 2009 acquisition was anticompetitive. https://www.ftc.gov/news-events/press-releases/2010/09/dun-bradstreet-settles-ftc-charges-2009-acquisition-was. Accessed 17 Dec 2022

Federal Trade Commission (2014a) FTC approves Nielsen Holdings N.V. and Nielsen Audio, Inc.'s application to sell its LinkMeter technology and related assets to comScore, Inc. https://www.ftc.gov/news-events/press-releases/2014a/04/ftc-approves-nielsen-holdings-nv-nielsen-audio-incs-application. Accessed 17 Dec 2022

Federal Trade Commission (2014b) FTC puts conditions on CoreLogic, Inc.'s proposed acquisition of DataQuick Information Systems. https://www.ftc.gov/news-events/news/press-releases/2014/03/ftc-puts-conditions-corelogic-incs-proposed-acquisition-dataquick-information-systems. Accessed 17 Dec 2022

Federal Trade Commission (2021a) Federal Trade Commission withdraws vertical merger guidelines and commentary. https://www.ftc.gov/news-events/news/press-releases/2021a/09/federal-trade-commission-withdraws-vertical-merger-guidelines-commentary. Accessed 17 Dec 2022

Federal Trade Commission (2021b) Prepared statement of Federal Trade Commission Acting Chairwoman Rebecca Kelly Slaughter before the Subcommittee on Antitrust, Commercial and Administrative Law of the Judiciary Committee United States House of Representatives. https://www.ftc.gov/system/files/documents/public_statements/1588320/p180101_prepared_statement_of_ftc_acting_chairwoman_slaughter.pdf. Accessed 17 Dec 2022

Federal Trade Commission (2022a) Enforcers summit transcript. https://www.justice.gov/atr/page/file/1494606/download. Accessed 17 Dec 2022

Federal Trade Commission (2022b) FTC and Justice Department launch listening forums on firsthand effects of mergers and acquisitions. https://www.ftc.gov/news-events/news/press-releases/2022b/03/ftc-justice-department-launch-listening-forums-firsthand-effects-mergers-acquisitions. Accessed 17 Dec 2022

Federal Trade Commission (2022c) Federal Trade Commission and Justice Department seek to strengthen enforcement against illegal mergers. https://www.ftc.gov/news-events/news/press-releases/2022c/01/federal-trade-commission-justice-department-seek-strengthen-enforcement-against-illegal-mergers. Accessed 17 Dec 2022

Federal Trade Commission (2022d) FTC and Justice Department listening forum on firsthand effects of mergers and acquisitions: technology. https://www.ftc.gov/news-events/events/2022d/05/ftc-justice-department-listening-forum-firsthand-effects-mergers-acquisitions-technology. Accessed 17 Dec 2022

Feiner L (2022) FTC, DOJ seek to rewrite merger guidelines, signaling a tougher look at large deals. https://www.cnbc.com/2022/01/18/ftc-doj-seek-to-rewrite-merger-guidelines.html. Accessed 17 Dec 2022

Feinstein R (2012) Negotiating merger remedies—statement of the Bureau of Competition of the Federal Trade Commission. https://www.ftc.gov/system/files/attachments/negotiating-merger-remedies/merger-remediesstmt.pdf. Accessed 17 Dec 2022

Finextra (2008) FactSet completes acquisition of Thomson Fundamentals database copy. https://www.finextra.com/pressarticle/22574/factset-completes-acquisition-of-thomson-fundamentals-database-copy. Accessed 17 Dec 2022

France/Germany/Netherlands (2021) Strengthening the Digital Markets Act and its enforcement, non-paper. https://www.bmwk.de/Redaktion/DE/Downloads/M-O/non-paper-friends-of-an-effective-digital-markets-act.pdf?__blob=publicationFile&v=6. Accessed 17 Dec 2022

Franck JU, Monti G, de Streel A (2021) Legal Opinion commissioned by the Federal Ministry for Economic Affairs and Energy on Article 114 TFEU as a legal basis for strengthened control of acquisitions by digital gatekeepers. https://www.bmwk.de/Redaktion/EN/Publikationen/Wirtschaft/article-114-tfeu-as-a-legal-basis-for-strengthened-control-of-acquisitions-by-digital-gatekeepers.pdf?__blob=publicationFile&v=5. Accessed 17 Dec 2022

Furman J, Coyle D, Fletcher A, Marsden P, McAuley D (2019) Unlocking digital competition, report of the Digital Competition Expert Panel. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/785547/unlocking_digital_competition_furman_review_web.pdf. Accessed 17 Dec 2022.

Gautier A, Lamesch J (2021) Mergers in the digital economy. Inform Econ Policy 54:100890

Graef I (2018) When data evolves into market power—data concentration and data abuse under competition law. In: Moore M, Tambini D (eds) Digital dominance—the power of Google, Amazon, Facebook, and Apple. Oxford University Press, Oxford, pp 71–97

Heim J (2021) Datenbasierte Marktmacht in der europäischen Fusionskontrolle – Schadenstheorien, Abhilfemaßnahmen, Absicherungsmechanismen. Nomos, Baden-Baden

Kanter J (2022) Opening remarks at 2022 Spring enforcement summit. https://www.justice.gov/opa/speech/assistant-attorney-general-jonathan-kanter-delivers-opening-remarks-2022-spring-enforcers. Accessed 17 Dec 2022

Kathuria V, Globocnik J (2020) Exclusionary conduct in data-driven markets: limitations of data sharing remedy. J Antitrust Enforce 8:511–534. https://doi.org/10.1093/jaenfo/jnz036

Killeen M (2022) UK jettisons legislation to empower digital regulator. https://www.euractiv.com/section/digital/news/uk-jettisons-legislation-to-empower-digital-regulator. Accessed 17 Dec 2022

Kwoka J (2020) Controlling mergers and market power: a program for reviving antitrust in America. Competition Policy International, Boston

Kwoka J, Valetti T (2021) Unscrambling the eggs: breaking up consummated mergers and dominant firms. Ind Corp Chang 30:1286–1306. https://doi.org/10.1093/icc/dtab050

Lande RH (2008) The Microsoft-Yahoo merger: yes, privacy is an antitrust concern. Univ of Baltimore School of Law Legal Studies Research Paper, No. 2008-06

Levy N, Gilbert P, Holland J, Olden C (2021) Merger control 2021 – UK trends and developments. https://www.clearygottlieb.com/-/media/files/publications-2021/chambers-merger-control-2021-global-practice-guide-uk-pdf.pdf. Accessed 17 Dec 2022

Maier N (2019) Closeness of substitution for "big data" in merger control. J Eur Competit Law Pract 10:246–252. https://doi.org/10.1093/jeclap/lpy086

Maier-Rigaud F, Loertscher B (2020) Structural vs. behavioral remedies. CPI Antitrust Chronicle April 2020

Monopolkommission (2015) Sondergutachten 68, Wettbewerbspolitik: Herausforderung digitale Märkte. https://www.monopolkommission.de/images/PDF/SG/SG68/S68_volltext.pdf. Accessed 17 Dec 2022

Motta M, Peitz M (2020) Removal of potential competitors—a blind spot of merger policy? Competit Law Policy Debate 6:19–25

Motta M, Peitz M (2021) Big tech mergers. Informat Econ Policy 54:100868

Nazzini R, Carovano G (2020) Addressing the "kill zone" of antitrust enforcement without killing legal certainty. Compet Law Policy Debate 6:44–50. https://doi.org/10.4337/clpd.2020.02.05

NewsDesk (2021) How "technical experts" affect the acquisition of Google-Fitbit. https://exbulletin.com/tech/978201/. Accessed 17 Dec 2022

OECD (2020) Start-ups, killer acquisitions and merger control. www.oecd.org/daf/competition/start-ups-killer-acquisitions-and-merger-control-2020.pdf. Accessed 17 Dec 2022

Parker G, Petropoulos G, Van Alsytne M (2021) Platform mergers and antitrust. Ind Corp Change:1307–1336

Picht PG (2022) In: Beck'scher Online-Kommentar Kartellrecht, GWB, 4th edn. Beck, Munich, Sec. 40

Pittman R (2020) An economist's thoughts on behavioral remedies in merger enforcement. CPI Antitrust Chronicle April 2020

Podszun R (2022) Ausschussdrucksache 20(9)60: Stellungnahme – Öffentliche Anhörung zum Thema "Digital Markets Act" im BT-Wirtschaftsausschuss. https://www.bundestag.de/resource/blob/891312/be5cbf80edbc4e9d5bd1ede61cf091ee/ADrs-20-9-60_Stellungnahme-Podszun-data.pdf. Accessed 17 Dec 2022

Rich JL (2014) Letter to Erin Egan, Chief Privacy Officer, Facebook, and to Anne Hoge, General Counsel, WhatsApp Inc. https://www.ftc.gov/system/files/documents/public_statements/297701/140410facebookwhatappltr.pdf. Accessed 17 Dec 2022

Scholl J (2017) Why the new merger control thresholds in Germany? J Eur Compet Law Pract 8:219

Schweitzer H, Metzger A, Blind K, Richter H, Niebel C, Gutmann F (2022) Data access and sharing in Germany and in the EU: towards a coherent legal framework for the emerging data economy. https://pure.mpg.de/rest/items/item_3457829_2/component/file_3457831/content. Accessed 17 Dec 2022

Scott Morton F et al (2019) Stigler committee for the study of digital platforms – market structure and antitrust subcommittee – report, pp 23–139 https://www.judiciary.senate.gov/imo/media/doc/market-structure-report%20-15-may-2019.pdf. Accessed 17 Dec 2022

Sivinski G, Okuliar A, Kjolbye (2017) Is big data a big deal?—A competition law approach to big data. Europ Competit J 13:199–227. https://doi.org/10.1080/17441056.2017.1362866

Stuart T (2021) Too little too late?—An exploration and analysis of the inadequacies of antitrust law when regulating GAFAM data-driven mergers and the potential legal remedies available in the age of big data. Europ Competit J 17:407–436

Taylor L, Mukiri-Smith H, Petročnik T, Savolainen L, Martin A (2020) (Re)making data markets: an exploration of the regulatory challenges, working paper. https://osf.io/preprints/socarxiv/pv98s/. Accessed 17 Dec 2022

Thomas S (2020) In: Immenga, Mestmäcker (eds) Wettbewerbsrecht, Vol. 3, GWB, Kommentar zum Europäischen und Deutschen Kartellrecht, 6th edn. Beck, Munich, Sec. 40

U.S. Department of Justice (2008) Justice Department requires Thomson to sell financial data and related assets in order to acquire Reuters. https://www.justice.gov/archive/atr/public/press_releases/2008/230250.htm. Accessed 17 Dec 2022

U.S. Department of Justice (2010) Statement of the Department of Justice Antitrust Division on its decision to close its investigation of the internet search and paid search advertising agreement

between Microsoft Corporation and Yahoo! Inc. https://www.justice.gov/opa/pr/statement-department-justice-antitrust-division-its-decision-close-its-investigation-internet. Accessed 17 Dec 2022

U.S. Department of Justice, The Federal Trade Commission (2010) Horizontal merger guidelines. https://www.justice.gov/sites/default/files/atr/legacy/2010/08/19/hmg-2010.pdf. Accessed 17 Dec 2022

U.S. Department of Justice, The Federal Trade Commission (2020) Vertical merger guidelines. https://www.ftc.gov/system/files/documents/public_statements/1580003/vertical_merger_guidelines_6-30-20.pdf. Accessed 17 Dec 2022

Valletti T (2021) How to tame big tech: reverse the burden of proof in merger reviews. https://www.promarket.org/2021/06/28/tech-block-merger-review-enforcement-regulators. Accessed 17 Dec 2022

Van den Boom J, Samranchit P (2022) Digital ecosystem mergers in big tech—a theory of long-run harm with applications. J Eur Compet Law Pract 13:365–371

Vande Walle S (2021) Remedies in EU merger control – an essential guide, working paper. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3782333. Accessed 17 Dec 2022

Van Gerven G, Mangiaracina A, Leslie W, Prompers L (2021) Data and privacy in EU merger control. https://globalcompetitionreview.com/guide/digital-markets-guide/first-edition/article/data-and-privacy-in-eu-merger-control. Accessed 17 Dec 2022

Vestager M (2021) Defending competition in a digital age – speech, Florence Competition Summer Conference on 24 June 2021. https://ec.europa.eu/commission/commissioners/2019-2024/vestager/announcements/defending-competition-digital-age_en. Accessed 17 Dec 2022

Waters C (2020) Google's $3b deal to buy Fitbit given workout by ACCC. https://www.smh.com.au/technology/accc-could-sink-google-fitbit-deal-over-lingering-competition-fears-20201222-p56pj4.html. Accessed 17 Dec 2022

Weitbrecht A (2010) Mergers in an economic crisis – EU merger control 2008/2009. Europ Competit Law Review 276

Wilson T (2020) Merger remedies – is it time to go more behavioural? http://competitionlawblog.kluwercompetitionlaw.com/2020/02/21/merger-remedies-is-it-time-to-go-more-behavioural/?output=pdf. Accessed 17 Dec 2022

Witt AC (2022) Who's afraid of conglomerate mergers? Antitrust Bull 67(2):208–236

Wong-Ervin KW, Moore J (2020) Acquisitions of potential competitors: the US approach and calls for reform. Compet Law Policy Debate 6:51–59. https://doi.org/10.4337/clpd.2020.02.07

Zingales N, Apple/Shazam (2018) Data is power, but not a problem here. Compet Policy Internat (CPI). https://www.competitionpolicyinternational.com/wp-content/uploads/2018/12/EU-News-Column-December-2018-Full.pdf. Accessed 17 Dec 2022

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