The Facebook-Giphy merger

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Abstract: I examine the Facebook-Giphy merger which the UK Competition and Markets Authority (CMA) blocked in 2022. The CMA's decision marks the first time that an antitrust agency has blocked a big tech acquisition and suggests that at least some antitrust agencies are willing to take a tougher stance on mergers in the digital sector. The decision has a number of interesting features which I discuss in the paper.

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1. Introduction

There is a growing concern about the increasing market power of big tech giants, and in particular the GAFAM firms.[1] Many commentators argue that mergers and acquisitions have played an important role in this process and that antitrust scrutiny of these mergers and acquisitions needs to be tightened. For instance, Andrea Coscelli, the former CEO of the CMA, refers to big tech acquisitions and argues that "there is now a general consensus that some of these acquisitions should not have gone ahead and that they allowed these firms to amass and reinforce their market power" (Coscelli, 2021).

Although the big tech giants have acquired hundreds of companies over the past 15 years, many if not most of their acquisitions went under the radar and were not examined by antitrust agencies.[2] Moreover, the U.S. House of Representatives (2020) argues that even when acquisitions were notified "In the overwhelming number of cases, the antitrust agencies did not request additional information and documentary material under their pre-merger review authority in the Clayton Act to examine whether the proposed acquisition may substantially lessen competition or tend to create a monopoly if allowed to proceed as proposed." Furman et al. (2019) make a similar argument and state that "very few" of the GAFAM acquisitions "have had conditions attached to approval, in the UK or elsewhere, or even been scrutinised by competition authorities."

Importantly, even though some GAFAM acquisition were large, subject to antitrust scrutiny, and in retrospect appear to have been problematic (e.g., Google-Youtube, Google-Waze, Google-Doubleclick, Facebook-Instagram, Facebook-WhatsApp, and Microsoft-Linkedin), until recently, no big tech acquisition was ever blocked.[3]

The UK Competition and Markets Authority (CMA) decision in 2022 to block the acquisition of Giphy, which is an online database and search engine for GIFs (Graphics

[1] GAFAM refers to Google (now Alphabet), Apple, Facebook (now Meta Platforms), Amazon, and Microsoft. Recently, Nvidia and Tesla joined this group which is collectively called the "Magnificent Seven" stocks.

[2] For instance, the FTC (2021) reports that over the period 2010-2019, the GAFAM firms were involved in 616 acquisitions of above $1m (excluding Hiring Events and Patent Acquisitions), which were not notified to the FTC under the Hart-Scott-Rodino Act. Facebook alone made 89 acquisitions from 2004 to the beginning of 2021 (see Congressional Research Service, 2021).

[3] Argentesi et al. (2019) provide ex-post assessment of a number of UK mergers in digital markets and conclude that there were "certain gaps in the way these cases were analysed, which in some cases may have resulted in the realization of market conditions less conducive to a competitive outcome." Walker (2023) writes that it is "hard to see the Google-Doubleclick merger as anything other than a bad merger that has allowed Google to become dominant across the adtech stack, to the detriment of users" and also adds that "Although opinions differ, there is at least an arguable (and widely believed) case that the competition authorities erred in allowed the Facebook-Instagram merger."

Interchange Format), by Facebook (called Meta Platforms since October 2021) is a notable exception. The decision marks the first time that an antitrust agency has blocked a big tech acquisition. Since then, there have been a few other attempts to block big tech acquisitions. In July 2022, the FTC opposed Meta's acquisition of Within Unlimited (the VR studio), but after losing in court, the FTC withdrew its opposition.[4] In October and December of 2022, the CMA and the FTC opposed Microsoft's acquisition of Activision Blizzard (a video game holding company). The CMA eventually gave its consent to the acquisition in October 2023, after Microsoft agreed to divest Activision's non-EEA cloud streaming rights;[5] the FTC's proceedings are still ongoing.[6] More recently, in September 2023, the European Commission (EC) prohibited Booking Holdings' proposed acquisition of Flugo Group Holdings AB ("eTraveli") (platform for selling flights) due to concerns about Booking Holding's dominance in the online hotel reservations market.[7] Another notable recent case is the proposed merger of Adobe and Figma (a collaborative web application for interface design) which was terminated by the parties in December 2023 after the CMA's and the EC's decisions to open Phase 2 investigations into the merger due to concerns about the loss of actual and potential competition in the markets for screen and creative design software.[8] And in January 2024, Amazon and iRobot (robot vacuum cleaners maker) announced that they would terminate their merger plans in the face of opposition from EC.[9]

The above decisions suggest that antitrust agencies are now willing to take a tougher stance on mergers in the digital sector. This tougher stance is part of a larger trend which calls for reforming antitrust enforcement in the high-tech sector. For example, the U.S. House of Representatives (2020) proposes a set of reforms that are aimed, among other things, to "strengthen merger and monopolization enforcement." Similar recommendations were made in a number of

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[4] See https://www.ftc.gov/legal-library/browse/cases-proceedings/221-0040-metazuckerbergwithin-matter.

[5] See CMA, "Anticipated acquisition by Microsoft Corporation of Activision Blizzard (excluding Activision Blizzard's non-EEA cloud streaming rights), Decision on Consent Under The Final Order," 13 October 2023. https://assets.publishing.service.gov.uk/media/652864062548ca000dddf22d/Full_text_decision__final_order_.pdf

[6] The FTC withdrew the matter from adjudication in July 2023, after the district court denied its request for a preliminary injunction, but returned it to adjudication on September 26, 2023. See https://www.ftc.gov/legal-library/browse/cases-proceedings/2210077-microsoftactivision-blizzard-matter

[7] See https://ec.europa.eu/commission/presscorner/detail/en/ip_23_4573. Booking intends to appeal the decision. See https://www.bookingholdings.com/press-releases/booking-holdings-intends-to-appeal-european-commission-decision-to-prohibit-the-companys-acquisition-of-etraveli-group/

[8] See https://www.gov.uk/cma-cases/adobe-slash-figma-merger-inquiry#full-publication-update-history and https://ec.europa.eu/commission/presscorner/detail/en/IP_23_4082

[9] See https://media.irobot.com/2024-01-29-Amazon-and-iRobot-agree-to-terminate-pending-acquisition For the EC's statement of objections, see https://ec.europa.eu/commission/presscorner/detail/es/ip_23_5990

recent high-profile reports on digital markets, including ACCC (2019), Crémer et al. (2019), Furman et al. (2019), and Scott Morton et al. (2019). Some commentators, e.g., Valletti (2021), even proposed to reverse the burden of proof in merger review to "tame the tech giants."[10] A similar tougher stance on mergers is reflected in the newly adopted 2023 U.S. Merger Guidelines, which among other things, eliminate the "safe harbors" for mergers in unconcentrated markets and mergers that have little effect on market concentration, lower the concentration thresholds that trigger a presumption that a merger may cause a substantial lessening of competition (SLC), and suggest a number of new presumptions and plus factors.[11]

Not everyone agrees however that merger policy in the high-tech sector should be tightened. For instance, Cabral (2020, 2021) argues that although vigorous enforcement is required to curb the increasing power of big tech giants, tightening merger policy in the high-tech space in general and reversing the burden of proof in merger review in particular may have a significant chilling effect on mergers and may therefore discourage innovation and ultimately harms consumers.[12] The UK Competition Appeals Tribunal (CAT, 2022) makes a similar argument in its judgement on the Facebook-Giphy merger and states that

> "In some instances, disapproval of a merger may have a chilling effect on innovation… Entrepreneurs like those who founded GIPHY will have at least half an eye on future acquisition by a behemoth like Meta, and this may inspire, rather than eliminate, innovation and enhance consumer benefit. In short, and as we have considered, acquisition by a larger undertaking may allow the smaller (acquired) undertaking to flourish and, on that basis, be considered as pro-competitive."

Letina, Schmutzler, and Seibel (2024) consider a model in which an incumbent and an entrant innovate and then negotiate an acquisition of the entrant by the incumbent. They show that

[10] Specifically, Valletti (2021) proposes that antitrust agencies will compile a list of firms that are large in terms of size, systemic importance, or economic power and then presume that mergers that involve these firms are anticompetitive unless the presumption is successfully rebutted by the merging firms. In a similar vein, Motta and Peitz (2020) propose to reverse the burden of proof when a firm with an entrenched dominant position merges with a potential entrant.

[11] https://www.justice.gov/d9/2023-12/2023%20Merger%20Guidelines.pdf

[12] Instead, he argues that the increasing power of big tech giants should be dealt with by checking for abuses of dominant position, tightening consumer protection, and directly regulating dominant firms.

prohibiting acquisitions always weakly reduces the variety of research projects pursued and thereby the probability of discovering innovations, albeit this is not always detrimental to consumers.[13] Cabral (2023) calibrates some policy proposals and estimates that while some reforms may boost welfare, a complete ban on high-tech mergers leads to a 35% drop in welfare, primarily due to a significantly lower innovation rate.[14]

In this paper, I review the Facebook-Giphy merger and assess the CMA's decision to block it.[15] The case is interesting for several reasons. First, the case, which is the first big-tech merger blocked by an antitrust agency, may mark a change in how mergers in the high-tech sector are going to be evaluated. Moreover, the merger was blocked by the CMA despite the fact that Facebook and Giphy are U.S. based and Giphy had no revenues outside the U.S.[16] The case then indicates that merging firms should take into account that the merger may be reviewed in multiple jurisdictions and face opposition outside their home country or main market.

Second, the CMA based its decision to block the merger on two theories of harm. One horizontal and one vertical. The vertical theory of harm was based on the concern that following the merger, Facebook would foreclose access to Giphy's services to rival social media platforms in order to harm their ability to compete in social media. This theory of harm is essentially one of input foreclosure and is pretty standard. In the context of the Facebook-Giphy merger, this theory of harm was highly plausible given that Giphy did not monetize GIFs after Facebook acquired it, so the cost of foreclosure would have been limited and likely below the associated benefits.[17]

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[13] Polo and Denicolò (2024) consider a model of repeated innovation where inventors may either be acquired by an incumbent or challenge for leadership. Acquisitions spur innovation in the short run because of the invention-for-buyout effect, but may stifle innovation in the longer run because of an entrenchment of monopoly effect. They show that if the entrenchment effect is sufficiently strong, forward-looking policymakers should prohibit acquisitions.

[14] Specifically, he estimates that relative to the current U.S. and EU systems which rely on a balance of probabilities (assessing which outcome is most likely to ensue), a system based on a balance of harms which was proposed by Furman et al. (2019) and advocated by Motta and Peitz (2020) (the probability of each outcome is weighted by its consumer surplus effect) leads to a 15% welfare increase, and committing to a more lenient standard than balance of harms increases welfare by an additional 2%.

[15] For other papers that examined the case, see Martínez (2022), Smith and Erciyas (2022), Bon et al. (2023), and Walker (2023). The first two papers mostly focus on the legal aspects of the case, while the last two, written by economists at the CMA and Ofcom, discuss the rationale for the CMA's decision to block the merger.

[16] Besides the UK, the merger was also reviewed in Austria and in Australia (see Martínez, 2022). In Austria, the Cartel Court approved the merger subject to conditions needed to alleviate concerns about vertical foreclosure of Meta's social media rivals. See https://www.bwb.gv.at/en/news/detail/meta-facebook-giphy-merger-afca-appealing-against-conditional-clearance. The decision was upheld by the Austrian Supreme Court of Justice. See https://www.bwb.gv.at/en/news/detail/submetering-cartel-decision-relating-to-ista-oesterreich-gmbh-final-1

[17] Indeed, although Meta appealed the CMA's decision to the Competition Appeal Tribunal, it did not seek to review the vertical SLC finding. Moreover, the vertical theory of harm was upheld by the Austrian Cartel Court and the Austrian Supreme Court of Justice.

The horizontal theory of harm by contrast was novel and arguably, much more controversial. It was based on the concern for the loss of potential competition, and more specifically, the loss of dynamic competition in the UK display advertising market. The Merger Assessment Guidelines (MAG) published by the CMA in 2021 distinguish between two types of loss of potential competition which may result in an SLC.[18] The first is a loss of "future competition" that would prevail between the merged firms after the potential entrant would have entered. The second is the loss of dynamic competition. which refers to the loss of efforts or investments of firms "aimed at protecting or expanding their profits in the future," including efforts to enter "entirely new areas" or expand "in areas where they are already active" (MAG, Paragraph 5.17).[19] Unlike future competition, which benefits consumers only in the future once entry has occurred, dynamic competition "can increase the likelihood of new innovations or products being made available, and therefore has economic value in the present" (MAG, Paragraph 5.20). Hence, the loss of dynamic competition may lead to an SLC "even where entry by that entrant is unlikely and may ultimately be unsuccessful" (MAG, Paragraph 5.23).[20]

Historically, antitrust agencies were reluctant to raise potential competition theories of harm, perhaps because these were deemed too speculative. Over time, however, some commentators have began to question this reluctance. For instance, Shapiro (2018) writes that "One promising way to tighten up on merger enforcement would be to apply tougher standards to mergers that may lessen competition in the future… when a large incumbent firm acquires a highly capable firm operating in an adjacent space. This happens frequently in the technology sector." The CMA's decision to block the Facebook-Giphy merger, and the subsequent decisions in the

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[18] See, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/986475/MAGs_for_publication_2021_-.pdf

[19] Examples of the these efforts or investments include "developing new products or improving existing ones; introducing more efficient or disruptive business models; introducing new features that benefit customers but also increase customer stickiness; or sacrificing short-run margins (or even operating at a loss) in order to attract users to their platform and benefit from network efficiencies, to achieve a minimum efficient scale, to scale up a distribution network, or to establish a reputation" (MAG, Paragraph 5.17).

[20] According to Walker (2023), future competition "can be harmed by an incumbent firm buying a known likely entrant and thus reducing the degree of competition in the future." By contrast, dynamic competition "is much more about the loss of competition between existing actual or likely competitors who are competing by investing to innovate for the future… A merger may reduce the incentive of the incumbent to invest as it removes the possibility of the acquired firm innovating and threatening the incumbent's future revenues." See also Bon et al. (2023). Kokkoris and Valletti (2020) define dynamic competition as "new technologies that displace existing markets" and argue that they are contrasted with "competition in the market" or "static competition" where competition mainly takes place on the basis of price and output."

Microsoft-Activision Blizzard and the Adobe-Figma cases, indicate that at least some antitrust agencies are now willing to consider the loss of potential rather than just consider the loss of actual competition.

Third, the Facebook-Giphy merger was the CMA's first Phase 2 inquiry to apply the 2021 MAG, and as Bon et al. (2023) argue, "can be seen as providing a grounding for how the CMA will apply the Guidelines when assessing concerns about a loss of dynamic competition in future cases." The case highlights the fact that this theory of harm is based on predictions about a very uncertain future which are naturally hard to substantiate, and it also highlights the difficulty of establishing convincingly that the merger is more likely than not to give rise to an SLC, especially when what is at stake are the incentives to innovate and the resulting effects on consumers.

The rest of the paper is organized as follows. In section 2, I review the background for the merger and in Section 3, I review the three relevant antitrust markets defined by the CMA and the market power of the merging parties in each of these markets. In Section 4, I discuss the theories of harm considered by the CMA, and in Section 5, I examine some key aspects of the case, including the possible motivation for the acquisition and the counterfactuals used by the CMA to evaluate the competitive effect of the merger. In Section 6 I evaluate the theories of harm that the CMA considered, and in Section 7, I discuss the issue of international comity which was relevant because the merger largely took place outside the UK. Concluding remarks are in Section 8.

2. The background

Facebook, established in July 2004 is a leading social media firm and owns, among other things, three major social media platforms: Facebook, Instagram, and WhatsApp. The Facebook group had a combined share of around 72% in the time spent on social media in the UK in 2020-2021 (CMA, 2021b, Paragraph 5.137-5.138); 97.9% of the group's total revenue of $86B in 2020 was from advertising (Congressional Research Services, 2021).

On May 15, 2020, Facebook completed an acquisition of Giphy for $315m (CMA, 2021b, Paragraph 2.31).[21] Giphy, incorporated in 2013 and headquartered in New York, is a platform that provides an online database and search engine that allows users to search and share GIFs and GIF

[21] Facebook acquired all outstanding equity in Giphy through its wholly-owned subsidiary, Tabby Acquisition Sub, Inc. (CMA, 2021a, Paragraph 41). While the acquisition price according to the CMA was $315M, the UK Competition Appeal Tribunal wrote that "Facebook paid some US$400 million for GIPHY" See Court of Appeal (2021, Paragraph 5). The Congressional Research Service (2021) also writes that the price was $400M.

stickers on social media and messaging platforms free of charge. GIFs are short (typically 2.5 seconds), looping, soundless videos that can be added to messages (say on WhatsApp); GIF stickers display animated images comprised of a transparent or semi-transparent background over which images or text can be added. Social media platforms use GIFs and GIF stickers as a way to increase user engagement, and thereby boost their advertising revenues. Giphy does not own the intellectual property rights to the usage and distribution of its GIFs and GIF stickers; it secures these rights from their owners through a purpose-built license (CMA, 2021b, Paragraph 4.20).

At the time of the acquisition, Giphy accounted for 60%-70% of the global GIF searches and had a large user base (CMA, 2021b, Paragraph 8.19). It offers its GIFs and GIF stickers to users both on its own website and app, and via third party apps, such as WhatsApp, Instagram, Snapchat, or TikTok, that integrate Giphy's GIF and GIF sticker databases using Application Programming Interfaces (API) or Software Development Kits (SDK). The third party apps are referred to as "API/SDK partners." Giphy's most important API/SDK partners were Facebook's platforms which accounted for more than half of its API traffic (CMA, 2021b, Paragraph 8.94).

Although Giphy's products are offered free of charge to users and to API/SDK partners globally, Giphy started in 2017 to offer brand partners in the U.S. a "Paid Alignment" service in exchange for a fee. Its annual revenue from the service was estimated at $27.5m (Hern, 2022). The Paid Alignment service allowed brand partners to align GIFs which promote their brands with popular search terms, to ensure that users see them first when searching for a GIF, or to insert their GIFs into Giphy's trending feed.[22] Internal Giphy documents indicate that Giphy was planning to expand the service internationally. However, at the time of the merger, Facebook decided to discontinue the service and not take on the Giphy's sales team as part of the merger (CMA, 2021b, Paragraphs 2.10-2.14 and 11.119).

On June 9, 2020, three weeks after the acquisition, the CMA made an Initial Enforcement Order requiring Facebook and Giphy to remain independent.[23] Facebook appealed the CMA's decision not to grant it a derogation from the standard initial enforcement order (which obliges the merging firms to be held separate pending the CMA's final decision) to the Competition Appeals Tribunal (CAT), but the CAT unanimously dismissed all grounds for the appeal (CAT, 2020).

[22] The feed shows the latest and most popular GIFs based on the service's search algorithms. For example, Giphy has partnered with Pepsi for the Super Bowl for paid alignments, and with Dunkin Donuts for Valentine's Day. See CMA (2021b, Paragraph 7.36).

[23] The description of the events in this paragraph and the next are based on CMA (2023a, 2023b).

Facebook then appealed the CAT's decision, but the Court of Appeal dismissed the appeal on May 13, 2021 (Court of Appeal, 2021).

On November 30, 2021, about a year and half after the acquisition, the CMA published a final report which required Meta to divest Giphy on the grounds that the merger had resulted, or may be expected to result, in a substantial lessening of competition (SLC) in (i) the supply of display advertising in the UK due to horizontal unilateral effects arising from a loss of dynamic competition; and (ii) the supply of social media services worldwide due to vertical input foreclosure. Meta applied on December 23, 2021 to the CAT for a judicial review of the CMA's decision and sought an order quashing the CMA's decisions on the basis of six grounds.[24] On June 14, 2022, the CAT handed down a judgement which unanimously dismissed five of Meta's six grounds of challenge, but partially upheld Meta's application on one procedural ground and remitted the case to the CMA for reconsideration (CAT, 2022). Four months later, on 19 October 2022, the CMA issued a final report on the Remittal Inquiry which maintained its initial decision and required that Meta divests Giphy. On June 23, 2023, about three years after the acquisition, Meta completed Giphy's sale for about $53M in cash to Shutterstock, Inc., which is a New York based platform that provides access to a library of audio, image, and video content, and is traded in the New York Stock Exchange.[25]

3. The CMA's market definition and findings regarding market power[26]

As usual, to evaluate the competitive effects of the merger, the CMA had to define a relevant antitrust market or markets within which the merger may result in an SLC. To this end, it had to identify the most significant competitive alternatives available to the customers of the merging firms, both in terms of products and in terms of the geographic areas in which they are being offered. I now discuss the three markets that the CMA defined and the market power of the merging parties in each market.

[24] Importantly, appeals to the CAT can only be on judicial review grounds and are not reviewed on their merits: "It is our task not to consider whether the CMA has "got it right", but whether the decision it made was lawful or not" (CAT 2022). Moreover, if an appeal is accepted, the case is remitted to the CMA for reconsideration.

[25] See "Meta sells Giphy to Shutterstock to comply with UK regulator order," Reuters May 23, 2023, https://www.reuters.com/markets/deals/shutterstock-acquire-Giphy-inc-53-million-cash-2023-05-23/

[26] The facts in this section and the next are largely based on CMA (2021a, 2021b).

3.1. The global market for supply of searchable GIF libraries

The definition of the relevant antitrust market for GIFs was based on several factors, including the following. First, the CMA's found that GIFs have distinctive characteristics that differentiate them from other types of creative content, such as animations, emojis, animojis, memes, infographics, or avatars. Second, Giphy's internal documents revealed that Giphy was monitoring other GIF providers, but did not consider providers of other types of content as material competitive constraints. Third, Giphy's internal documents that revealed that it believed that sourcing, moderating and hosting a GIF library and having established relationships with content partners are important elements of its competitive advantage.

In terms of the geographic boundaries of the market, the CMA found that GIFs are generally available to users globally. Accordingly, it assessed the impact of the merger on the worldwide supply of searchable GIF libraries.

The CMA found that Giphy is the market leader in the global market for searchable GIF libraries, with a share of 60%-70% of the average monthly API/SDK searches (searches on API/SDK partners, such as WhatsApp, Instagram, Snapchat, or TikTok) in 2020.[27] Tenor, owned by Google was the only close competitor with a share of 30%-40%. There are also smaller providers of searchable GIF libraries, including Gfycat, Gifbin, Imgur, Vlipsy, and Holler, but at the time of the merger, none of them was offering a service of a comparable quality to Giphy and Tenor. In particular, only Giphy and Tenor maintained attractive and current content libraries, and had a sophisticated search engine and a wide distribution network of API/SDK partners. Gfycat was the largest of the smaller providers with a share of less than 5%. In 2020, shortly after Facebook acquired Giphy, Gfycat was acquired by Snap, the parent company of Snapchat, although eventually it was shut down and its services were discontinued as of September 1, 2023.[28]

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[27] In fact, "in the UK alone, over a billion GIF searches are run by users each month on average using GIPHY's API integrations" (CMA, 2021b, Paragraph 11).

[28] See Parties' joint response to the provisional findings (18.8.22), https://assets.publishing.service.gov.uk/media/62fe143ee90e0703e1bb4842/Main_Parties__Initial_Submission_on_Remittal_29_July_2022.pdf and "Gfycat, the Snap-owned GIF hub, shuts down on September 1," by Lauren Forristal, Techcrunch.com, July 5, 2023, https://techcrunch.com/2023/07/05/gfycat-shuts-down-on-september-1/?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce_referrer_sig=AQAAAB3SrsFl-KV7dKESo9V9R2sZ9rtHgy42HdR6Xa_OC8D_-ltNTHWwPinoKNRmsiwQU0v2fgwiwcd0G_fhAizOlxVFZCvUz1wanU7kThhrmoe3NVqpghyrtJQNGkjDZRv24IOgjeKYvb-ScykZTzVf2O8VsVV-iZvTb2-MEbyYYA5z

3.2. The global market for social media

As for social media platforms, the CMA relied on its 2020 market study on online platforms and digital advertising (CMA, 2020). The study found that the strongest competitive constraints on Facebook were imposed by other providers of social media that allow users to interact with one another, including Linkedin, Twitter, TikTok, Snapchat, Pinterest, Reddit, and Tumbir.[29] Similarly to searchable GIF libraries, the CMA found that social media platforms are generally available to users globally and therefore assessed the merger's impact on the worldwide supply of social media.

The CMA found that the Facebook Group (including Instagram and WhatsApp) had around 72% share of the time that UK users spent on social media, with TikTok being second with a share of 10%-12%, and SnapChat and Twitter being third and fourth with shares of 5%-7% (CMA 2021b, Table 4). Moreover, the CMA (2020) concluded that Facebook had a significant market power in social media, and that the competitive threat to Facebook from the entry and expansion of other platforms is limited due to several self-reinforcing barriers, such as same-side and cross-side network effects;[30] the superior consumer data that Facebook has which allows it to better target specific audiences and offer more value to advertisers; and the significant economies of scale due to the investments required to develop and maintain an effective display advertising platform.[31]

3.3. The UK market for display advertising

Regarding advertising, the CMA found only limited substitutability between digital advertising and traditional offline advertising and concluded that typically the two are complements rather than substitutes. It also found that from the perspective of advertisers, there is limited substitutability between search and display advertising. The merging parties disagreed with the last point and argued that all forms of advertising are substitutable, as advertisers allocate their budgets across all different advertising channels with the goal of maximizing their return on

[29] Notably, the CMA excluded YouTube from the relevant market, based on evidence that YouTube does not impose a strong competitive constraint on Facebook and that users access YouTube principally to watch videos, whereas the top reason for accessing Facebook is "keeping in touch with friends and family."

[30] Same-side network effects refers to network externalities on the same side of the market (e.g., an increase in the number of Facebook users boosts the utility of each Facebook user). Cross-side network effects refers to network externalities from one side of the platform to another (e.g., an increase in the number of Facebook users attracts more content developers and advertisers).

[31] The investments include the development of a website/app and back-end functionality to support the platform and technical equipment, and investments in facilities, equipment, and marketing.

investment. They also argued that the characteristics and purpose of search and display advertising have significantly converged over the past years. The CMA rejected these arguments and wrote that most advertisers argue that they set budgets for search and display advertising independently. This is because search advertising is primarily intent based and designed to provide immediate answers to "in-market consumers" who have already shown interest in buying the product, whereas display advertising is used to raise brand awareness and reach "out-of-market consumers" that might not yet have shown interest. The CMA concluded that display advertising is the relevant product market to assess the impact of the merger. As of 2019, awareness campaigns accounted for around 17% of the total spend by Facebook advertisers.[32]

Unlike searchable GIF libraries and social media platforms which are supplied globally, the CMA found that the advertising market is national, as advertisers are often interested in targeting users with particular characteristics, including their location, language, and culture. Accordingly, the CMA assessed the impact of the merger on the supply of display advertising in the UK.

The CMA concluded that the Facebook group is by far the largest supplier of display advertising in the UK with a share of over 50% of the £5.5 billion UK display advertising market in 2019, and 40%-50% in 2020.[33] Not surprisingly, the Facebook platforms are viewed as a "must have" for many advertisers both because of their reach and because of their extensive data on users which allows for more precise targeting of specific audiences.

4. The CMA's theories of harm[34]

The CMA considered two theories of harm, one horizontal - loss of dynamic competition in display advertising - and one vertical - input foreclosure of social media platforms. Based on these, it concluded that "the Merger is more likely than not to give rise to an SLC" in display advertising in the UK and in social media worldwide (CMA, 2021b, Paragraph 18), which is the legal test used in the UK to determine whether a merger should be blocked (Walker, 2023).

[32] See Figure N.9 in CMA (2020, Appendix N).
[33] See CMA (2020, Paragraph 2.62) and CMA (2021b, Paragraphs 5.187-5.189). Facebook's share of the U.S., digital advertising market in 2020 was estimated at 23.4%, ranking second to Google (29.4%) and ahead of third-ranking Amazon (9.5%). See Congressional Research Services (2021).
[34] Unless stated otherwise, the facts in this section and the next are based on CMA (2021a, 2021b).

Before turning to the two theories of harm in detail, it is worth noting that until recently, antitrust agencies did not commonly raise potential competition theories of harm (the loss of dynamic competition is a specific type of loss of potential competition) when reviewing mergers in the high-tech sector. Robertson (2022) studies 69 national digital and technology merger cases from 17 selected EU Member States and the UK during the 2015-2022 period. She finds that although 57 cases raised horizontal concerns, only 6 raised concerns about the loss of potential competition. Of these, 5 were from the UK (including the Facebook-Giphy merger) and one was the Facebook-Giphy merger that was reviewed in Austria.[35] The remaining 51 cases that raised horizontal concerns focused on the loss of an actual competitor.[36] It then seems that the CMA is much more willing to consider concerns about the loss of potential competition than other antitrust agencies. This may not be surprising given that the 2021 MAG extensively discuss this concern as one of the main theories of harm due to mergers, alongside the loss of existing competition, the possibility for coordinated effects, and vertical and conglomerate effects.[37]

The vertical theory of harm – input foreclosure - is raised much more often in national digital and technology merger cases. Robertson (2022) finds that 29 merger cases of the 69 that she studies raised vertical concerns, of which 27 raised concerns about input foreclosure. Another 11 cases raised concerns about customer foreclosure and 15 cases raised concerns about conglomerate foreclosure (e.g., due to bundling).

Apart from the loss of dynamic competition and input foreclosure, the CMA also considered in Phase 1, but dismissed, two additional theories of harm. The first was that the merger will raise barriers to entry and expansion into display advertising by increasing Facebook's data advantage. The CMA dismissed this theory of harm because it concluded that the amount of new data that Facebook may gain due to the merger and the resulting extra advantage it may enjoy in display advertising may be limited. The second theory of harm was the loss of potential

[35] The other four cases which raised concerns about the loss of potential competition are PayPal Holdings–iZettle in 2019, Amazon-Roofoods in 2020, Adevinta-eBay Classifieds Group in 2021, and Uber International-GPC Computer Software in 2021.

[36] Motta and Peitz (2021) discuss recent theories of harm of big tech mergers which remove actual competitors and stress that they rely on features that figure prominently in digital industries, including network effects, two-sidedness, free services to one side, and the prominence of big data.

[37] See https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/986475/MAGs_for_publication_2021_-.pdf. It should be noted that the 2023 U.S. Merger Guidelines also state in Guidelines 4 that "mergers can violate the law when they eliminate a potential entrant in a concentrated market."

competition in the supply of searchable GIF libraries. The CMA dismissed it after noting that although Facebook considered building its own GIF library, the plan was to develop it solely for self-supply (CMA 2021a, Paragraphs 281-288).

4.1. Loss of dynamic competition in display advertising

In its Phase 1 decision, the CMA emphasized both the loss of "future competition" and the loss of "dynamic competition" (CMA 2021a, Paragraphs 188-194), but in Phase 2, it focused only on the latter (CMA 2021b). The decision emphasizes that absent a merger, entrants like Giphy "are making efforts or investments that may eventually lead to their entry or expansion," while incumbents like Facebook invest in order to "mitigate the risk of losing future profits to potential entrants such as GIPHY" (CMA, 2021b, Paragraph 7.14). It concluded that the merger may weaken the incentives to invest and will therefore result in SLC in display advertising in the UK (CMA, 2021b, Paragraph 7.255). The CMA also stressed that the process of dynamic competition "can also increase the likelihood of new innovations or products being made available, whether this would have been by GIPHY, Facebook or other firms" and that the resulting benefit can accrue in the present rather than merely only in the future (CMA, 2021b, Paragraphs 7.14-7.15).

Specifically, the CMA argued that the Paid Alignment service (which Facebook discontinued after acquiring Giphy) had the advantage of making it possible to include non-intrusive ads within messages when users browse or search for GIFs. The CMA pointed out that Facebook's internal documents discussed the importance of monetizing messaging, and that were the Paid Alignment service to become a prominent channel for advertising on messaging and other social media platforms, Facebook would potentially face stronger competitive constraints in display advertising. These constraints could threaten Facebook's position in the UK display advertising market (its market share was 40%-50%) and push it to compete more vigorously.

As for Giphy, the CMA found that although Giphy was not active in digital advertising in the UK at the time of the merger, and has not yet reached profitability in the U.S., it had plans to start monetizing its GIFs internationally, including in the UK, through its Paid Alignment services. According to the CMA, "GIPHY's internal documents indicate that GIPHY was optimistic about its monetisation options, envisaging breakeven profitability in 2022 (and potentially even sooner)" (CMA, 2021b, Paragraph 6.43).

The CMA believed that the merger may reduce Giphy's efforts to expand its digital advertising business, both geographically and in terms of the range of advertising formats and partners, thus reducing dynamic competition in display advertising. Moreover, the CMA argued that had Giphy been acquired by an existing display advertising competitor, such as another social media platform, the acquirer could have strengthened its digital advertising offering and posed a stronger competitive constraint on Facebook. The CMA therefore believed that the merger is more likely than not to give rise to a substantial loss of dynamic competition in display advertising in the UK.

The merging parties disputed the CMA's assessment and argued that there are several reasons to believe that absent a merger, Giphy would not generate revenue or secure sufficient external investment to maintain or grow its business. First, Giphy was operating at a monthly loss and even if it had been able to secure external funding from investors, it would have been forced to scale back its plans and make significant redundancies. Second, Giphy relied on users of third party services, and had little available advertising inventory to scale revenue independently. Third, Giphy could not demonstrate that a revenue-sharing, API-dependent model, which relied on monetizing the actions of consumers on third party services, was sustainable. Moreover, API/SDK partners have no reason to share revenues with a third party like Giphy, or experiment with unproven forms of advertising when they can rely on their own existing proven products. Fourth, Giphy could not provide traditional advertising return on investment audience data and advertising metrics to provide a compelling Paid Alignment offering that would enable it to sell ads on a large scale. The merging parties also submitted that there was no realistic prospect of an alternative acquirer for Giphy, given that only Facebook signaled a firm interest in acquiring Giphy.

The CMA dismissed these arguments and expected that Giphy would have continued to supply GIFs, innovate, develop its products and services, generate revenue and explore various options to further monetize its products, either as an independent firm or under the ownership of an alternative acquirer, possibly another social media platform. (CMA, 2021b, Paragraph 6.169).

4.2. Input foreclosure of social media platforms

The second theory of harm considered by the CMA was that the merger may allow Facebook to vertically foreclose rivals in social media and display advertising and will therefore result is SLC in the global social media market. The CMA argued that foreclosure could be complete and involve

an outright refusal to supply GIFs via Giphy's API/SDK partners, or partial and involve a degradation of the quality of Giphy's service to rivals. The latter could take the form of (i) worsening the terms of Giphy's supply or limiting the ability of rivals to benefit from revenue sharing agreements with Giphy, (ii) reprioritising innovation and development of Giphy's API/SDK services towards the requirements of Facebook's own social media services over those of rival social media platforms, or (iii) requiring rivals to provide more user data to access Giphy.

The CMA also argued that in principle, the foreclosure of rival social media platforms could benefit Facebook both directly and indirectly. The direct effect stems from potentially diverting users from rivals to Facebook, which would then boosts Facebook's advertising revenue (the diversion may be amplified due to network externalities). The indirect effect is due to harming the ability of rivals to innovate, grow, and develop. The CMA considered three factors that are likely to make foreclosure effective from Facebook's perspective.

The first factor is whether rivals have good substitutes for Giphy's services. Clearly, foreclosure is more effective if rivals do not have access to good substitutes. In general, there are three potential substitutes: existing GIF suppliers, new entry, and backward integration by social media platforms into searchable GIF libraries. Starting with existing GIF suppliers, the CMA found that the only effective alternative to Giphy was Tenor (owned by Google), and even then its share of API/SDK searches in the UK in 2019 was merely 10-20%, compared with 80-90% for Giphy (CMA, 2021a, Paragraph 22). The offerings of other GIF providers, such as Gfycat, Gifbin, Imgur, Vlipsy, and Holler, were considered less attractive by third parties as they lack the attractive and current content library, the sophisticated search algorithm, and the wide distribution network of API/SDK partners that Giphy and Tenor maintain.

As for new entry, the merging parties argued that entry is likely given that GIFs have become a commodity and that "less than 1% of Giphy's content is exclusive" (CMA, 2021b, Paragraph 8.44). The CMA however considered it very unlikely that a new GIF provider will emerge in the near future due to the significant barriers to entry and expansion in the supply of searchable GIF libraries, associated with developing a high-quality large content library, a sophisticated search algorithm, a strong brand name, and a monetization strategy. In particular, while Giphy submitted that content is regularly scraped/copied by competitors, Giphy's API partners have noted that it is important to work with a GIF provider that has the required licenses for the content in its searchable library. Moreover, according to Giphy's internal documents,

determining the intent of a GIF search term is complex and requires sophisticated search algorithms to cater for a myriad of possible meanings of what a search term may represent. In turns out that Giphy made specific innovations in relation to the ranking of search terms which utilize behavioral models and image feature models and require large datasets, engineering time and cost to develop in addition to the readily available search programs.

Finally, the CMA also concluded that it is unlikely that social media platforms will develop their own searchable GIF libraries because Giphy "is not easily replicable" as this "would require a significant resource and time commitment" (CMA, 2021b, Paragraph 8.50).

The significant barriers to entry and expansion into searchable GIF libraries leave Tenor as the only effective alternative to Giphy. The CMA concluded however that Tenor alone is not enough to alleviate the concern for vertical foreclosure. This conclusion was based on four main arguments (CMA, 2021b, Paragraphs 8.26-8.32, 8.83). First, the CMA found that for some social media platforms, it is important to have more than one GIF provider. Second, some third parties submitted that switching to another GIF provider could affect user experience and/or engagement on their platforms. Third, the CMA held that Giphy is uniquely placed to compete and innovate in GIF provision in the future and noted that Google's incentives to develop Tenor may be different from Facebook, as Google is not a social media platform. Fourth, if foreclosure renders Tenor the only significant provider of GIFs, Tenor would be more likely to lower the quality of its own service, for example by requesting more data from API/SDK partners, worsening the terms of supply, and prioritizing innovation and product development to benefit Google's own commercial interests and product requirements over those of social media platforms. And to the extent that Tenor would successfully launch an advertising model, it may insist, as an effectively single provider, on sharing the revenue with the platforms on worse terms.

The second factor that affects how effective foreclosure is in harming rival social media platforms is whether GIFs play an important role in shaping competition in social media and display advertising. The CMA found that GIFs are considered by Facebook, as well as by some of its main rivals, as an important feature for driving user engagement on online platforms and that removing Giphy would unavoidably degrade user experience.[38] Moreover, the CMA argued that GIFs may become even more important in the future as an advertising channel within messaging.

[38] Not all platforms viewed GIFs as essential: some third parties told the CMA that having a significantly worse GIF offering would have "some impact on their competitiveness and ability to win and retain users" (CMA, 2021a,

A third factor that affects the effectiveness of foreclosure is the extent to which Giphy collects, or may be able to collect, data from third party platforms that would place Facebook's rivals at a competitive disadvantage. The merging parties submitted that Giphy's data is limited in scope and value and would not be useful for targeted advertising for several reasons. First, the data is narrow in scope as Giphy does not have access to detailed user, context, or activity data that could provide meaningful insights to advertisers. Moreover, Giphy's API partners can and do use proxy servers and content caching servers to prevent Giphy from accessing user-level data. Second, data on GIF search terms contains substantial noise, as the meaning or sentiment of GIFs can depend on the context. Third, user search queries appear largely uniform across Giphy's API partners and Facebook already accounts for more than half of Giphy's API traffic, so the incremental information that Facebook can derive from seeing queries originating from other API partners is small.

The CMA noted however that some platforms expressed concerns over Facebook's data advantage. It pointed out that although Facebook already has significant amounts of aggregate data on the usage of competitor apps, there are gaps and inaccuracies in the data which Giphy's user-level data may improve and refine. This will boost Facebook's ability to identify competitive threats, react to emerging market trends ahead of rivals, or target efforts in certain narrow areas, particularly where its existing market intelligence is incomplete (e.g., certain geographic markets or specialized social media services). Moreover, the CMA argued that Giphy may prevent API/SDK partners from using proxying and/or caching to hide their data by making the availability of data a requirement for supplying GIFs at the same quality level as they are supplied to Facebook.

The CMA also argued that regardless of whether Facebook could use Giphy's data to disadvantage rivals, rival platforms may be unwilling to share their data with Facebook, for example because sharing the data with Facebook would weaken their users' privacy. To avoid this "data leakage," the rivals may switch to an alternative GIF provider, which would in effect amount to foreclosure.

As for the cost of foreclosure, the CMA argued that it is likely to be limited because there is only a small risk that foreclosure will reduce Giphy's traffic and materially affect the quality of its services. The low cost, together with the findings that foreclosure is effective in harming rival

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Paragraph 200) and two platforms characterized GIFs as "nice to have but not critical or foundational for their growth or user engagement" (CMA, 2021b, Paragraph 8.86).

social media platforms and diverting users to Facebook led the CMA to conclude that the merger is more likely than not to rise to an SLC. The CMA also argued that this concern is particularly large given Facebook's significant market power in social media and display advertising.

5. The motivation for the acquisition and the counterfactuals

In this section I examine the motivation for the acquisition and the counterfactuals used by the CMA to evaluate its competitive effect.

5.1. The motivation for the acquisition

The Facebook-Giphy merger had both a horizontal dimension as the CMA argued that Giphy competes with Facebook in the market for display advertising and a vertical dimension as GIFs are used by social media platforms as an input. In general, horizontal mergers are possibly motivated, at least in part, by the parties' desire to soften competition in the market (here the display advertising market). Vertical mergers are often motivated by the desire to alleviate various distortions that may arise along the vertical chain or alternatively by foreclosure considerations. In this context, it is therefore interesting to examine Facebook's motivations for acquiring Giphy.

Facebook mentioned three motivations for the merger, which I now discuss in turn.

5.1.1. A concern about losing access to Giphy's services

The first motivation that Facebook mentioned was a concern that Giphy will cease to operate due to its ongoing losses, in which case the user experience on Facebook would be compromised (CMA, 2021b, Paragraph 2.29). The risk was particularly large in the case of Instagram, which relied exclusively on Giphy for the provision of GIFs and GIF stickers. Facebook estimated that losing access to Giphy's content would negatively affect Instagram's proposition to end users and its ability to monetize its service (CMA, 2021b, Paragraphs 2.37, 2.39).

Taken at face value, the argument then is that Facebook acquired Giphy to ensure its viability. In other words, the acquisition was the opposite of a "killer acquisition," which arises when a dominant firm acquires a rival in order to shut it down or discontinue its products.[39] Killer

[39] The seminal paper on killer acquisition is Cunningham, Ederer, and Ma (2021). They present evidence for killer acquisitions in pharmaceutical drug industry. Gautier and Lamesch (2021) find that over the period 2015–2017, the GAFAM firms acquired 175 companies and find that in the majority of the acquisitions, the target's product was discontinued under its original brand name post acquisition, especially when the target was a young firm. Their finding

acquisitions are often mentioned as one of the reasons for the high concentration in the digital economy.[40] The acquisition was neither a reverse killer acquisition (Crawford, Valletti, and Cafarra, 2020), where the acquirer kills its own product after the acquisition, because Facebook's internal documents indicated that its sole motivation for developing a GIF library had been self-supply (CMA, 2021a, Paragraph 288), implying that even without a merger there would not have been another GIF service available to rival social media platforms. Instead, Facebook argued that the acquisition was in effect a "life-saving acquisition," meant to ensure Giphy's viability. Unlike a killer or a reverse killer acquisition, a life-saving acquisition ensures that consumer surplus is preserved or even enhanced rather than being lost.[41]

The "life-saving" story begs at least two questions. First, why was Facebook concerned about Giphy's viability? After all, there is no evidence that Giphy was in financial trouble before the merger or had difficulties raising external funds (CMA, 2021b, Paragraph 6.35), nor is there evidence that API/SDK partners were reluctant to adopt Giphy's service before the acquisition due to a concern about its viability. Why then should Facebook be so concerned that it had to acquire Giphy to protect its viability?

The second question is the following: suppose that Facebook was truly concerned about Giphy's viability. What prevented it from approaching Giphy and tell it that Facebook will rescue it if it were in trouble? It is of course possible that a guarantee of this kind could have driven Giphy to take excessive risks, knowing that in the worst case scenario it will be bailed out by Facebook. But then, there is no evidence that this was a real concern, nor that Giphy even had an access to risky investments that would give rise to a significant moral hazard problem that Facebook wanted to avoid by acquiring Giphy.

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is consistent with the killer acquisitions story. By contrast, Ivaldi, Petit, and Ünekbaş (2023) study 12 GAFAM acquisitions reviewed by the European Commission. Based on financial disclosures, they find little evidence for a weakening, let alone a killing, of competition following the acquisition.

[40] For example, the U.S. House of Representatives (2020) discusses mergers in the digital sector and states that "In some cases, a dominant firm evidently acquired nascent or potential competitors to neutralize a competitive threat or to maintain and expand the firm's dominance. In other cases, a dominant firm acquired smaller companies to shut them down or discontinue underlying products entirely—transactions aptly described as "killer acquisitions.""

[41] Although one might argue that the discontinuation of the paid alignment service is consistent with a killer acquisition interpretation, it would be a stretch to claim that killing the paid alignment service was a main motivation for the acquisition, and indeed, the CMA does not make this claim (see e.g., CMA, 2021b, Paragraph 2.49). Moreover, mergers and acquisitions are often followed by net reductions in the number of offered products for reasons that are related to organizational considerations like focusing on their core competencies rather than the desire to eliminate a rival's closely competing products (see e.g., Atalay et al., 2024).

Another possibility is that Giphy was viable but lacked the resources to invest in new innovations. It has been argued that firms in the high-tech sector may face difficulties in raising funds for investment due to a "kill zone" effect. Kamepalli, Rajan, Zingales (2020) develop a model that rationalizes the kill zone story. In their model, some potential customers have an incentive to delay the adoption of a product when they anticipate that the firm will be acquired by a dominant firm and its product would be integrated into the acquirer's product, forcing them to incur switching costs. The incentive to delay adoption lowers the firm's payoff, and hinders its ability to raise funds, thus creating a "kill zone."[42] If that was the case, then an acquisition was necessary to ensure that Giphy had the resources to innovate. However, there is no evidence that Giphy lacked the ability to finance new projects, nor that potential customers delayed the adoption of its products. Moreover, had the problem been one of a shortage of funds, then it could have been solved by a long-term contract for developing new products for Facebook. It is not obvious why such a contract could not have substituted a complete acquisition.[43]

It then seems that the argument that Facebook acquired Giphy because it was concerned about its viability or its ability to raise funds for investment is not very convincing. A more compelling explanation for Facebook's concern about losing access to Giphy's services was mentioned in Facebook's email chain seeking approval for the acquisition. There, the stated motivation for the merger was to "prevent competing social media services from acquiring Giphy" (CMA, 2021b, Paragraph 2.32). The risk of such an acquisition from Facebook's perspective was that the acquirer would foreclose Facebook. The risk was particularly large in the case of Instagram which relied exclusively on Giphy for GIFs. Other Facebook platforms (including WhatsApp and Messenger), which are integrated with Tenor, were also at risk: absent Giphy, these platforms would depend on Google (Tenor's owner) which would put Facebook at a strategic disadvantage.

Essentially the risk that is a mirror image of the vertical theory of harm which I discuss in Sections 4.2 and 6.2, except that here, Facebook is the one being foreclosed. One might argue that the risk that Facebook would have been foreclosed was small, given that the Facebook group had

[42] Motta and Shelegia (2022) provide an alternative model of the "kill zone" argument, where an incumbent firm may induce an entrant to choose a "non-competing" path in order to avoid the incumbent deploying a copycat strategy. Interestingly, they show that this strategy is not necessarily welfare-detrimental.

[43] Other ways to ensure that Giphy has sufficient funds to invest without a need for a full blown merger include an acquisition of a minority stake or forming a joint venture. Indeed, the CMA argued that Facebook considered a possible minority investment in Giphy or alternatively, paying an annual fee to access Giphy's content. See CMA (2021b, Paragraph 2.35).

accounted for a 72% share of the time spent on social media in the UK. Although Facebook's size makes the cost of foreclosure large as Giphy would have lost a sizeable market share of GIFs (albeit the associated cost would have been indirect as GIFs were offered for free), the acquirer's benefit of foreclosure would have also been large, as the degradation of Facebook's services might have induced a large shift of usage from Facebook to the acquirer. In other words, Facebook's size makes both the cost of foreclosure, as well as the associated benefit, large.

5.1.2. Efficiency gains

A second motivation that Facebook's mentioned for Giphy's acquisition was to realize efficiency gains (CMA, 2021b, Paragraph 2.29). Indeed, a common justifications for vertical mergers (the merger had a vertical dimension) is that they can help firms eliminate or at least alleviate various types of frictions and inefficiencies that can arise in vertical relations. Given that Giphy's services were available to users for free, double marginalization was obviously not a concern, but at least in principle, there could have been upstream or downstream moral hazard issues before the merger. For instance, insufficient investments by Giphy to improve the usages of GIFs on Facebook's platforms (as Giphy does not internalize the benefits that accrue to Facebook), or insufficient investments by Facebook to promote Giphy's services on its platforms (as Facebook does not internalize the benefits that accrue to Giphy).

In particular, the merging parties submitted that following the acquisition, "Facebook could enhance user experience by significantly investing in additional GIPHY services and by pursuing further integration of GIPHY's library into Facebook's services, thereby allowing Facebook to offer more innovative products to users" (CMA, 2021b, Paragraph 9.110).[44] The CMA mentions in addition that the merger made it possible for Facebook to "personalize users' GIF searches across its user-facing platforms," which "may enable Facebook to provide a better quality service … and increased user engagement across its platforms" (CMA, 2021b, Paragraph 2.47).

While efficiencies can justify a vertical merger, there are at least two problems with the argument. First, the CMA claims that it did not see "any evidence that there will be such efficiencies as a direct result of the Merger" and concludes that "it is not likely that rivalry

[44] One specific investment mentioned in the case was a new ad format within the sticker "tray" on Instagram (the sticker tray enables search and retrieval of GIFs and stickers to be used as part of the Instagram "story."). See CMA (2021b, Paragraph 2.40).

enhancing efficiencies arise from the Merger to prevent any SLC from arising" (CMA, 2021b, Paragraph 9.111). Second, upstream or downstream moral hazard problems can be potentially solved with an alliance or contracts. It is then not clear why such arrangements were not enough, making a merger necessary. One possibility is that either Facebook or Giphy were concerned that if they work together to develop innovative GIF products to be used on Facebook's platforms, these innovations would leak to either Facebook's rivals (e.g., Snapchat or TikTok) which are also clients of Giphy or to Giphy's rivals (e.g., Tenor) which also supplied GIF's to Facebook and Whatsapp (though not to Instagram). A merger can solve this problem.

5.1.3. Acquihire

A third possibility is that the merger was an acquihire: an acquisition intended to integrate Giphy's talent, especially its creative production specialists, as a team into Facebook (CMA, 2021b, Paragraph 2.29). This possibility is highly plausible as Mark Zuckerberg was quoted in the press as saying that "Facebook has not once bought a company for the company itself. We buy companies to get excellent people."[45] Indeed, Chen, Hshieh, and Zhang (2023) find evidence that suggests that skilled labor is an important driver of acquisitions and an acquisition is an effective means of obtaining skilled labor. In Giphy's case, the CMA argued that "Facebook also recognised Giphy's role as an innovator and saw the creativity of its team as an important driver in its decision to acquire Giphy" (CMA, 2021b, Paragraph 7.34). Moreover, the CMA argued that Facebook stated that "GIPHY's creative team would 'accelerate Facebook's efforts around other creative expression use cases across its services'" (CMA, 2021b, Paragraph 2.29).

In particular, the CMA (2021b, Paragraph 7.34) quotes Vishal Shah, VP and Head of Product at Instagram, who described Facebook's reasons for acquiring Giphy as follows:

> "…what's easier to find are engineers that can write code. What's hard to find is those who can do that with a creative mindset, who understand how consumers think and can build products that are meaningfully important to consumers, and Giphy had those products… And it, it is very, very hard to go and build that culture and to do it in a way that aligns with the way that we think and we build. … the

[45] See "Mark Zuckerberg: 'We Buy Companies to Get Excellent People'," by Nathaniel Cahners Hindman, HuffPost, October 19, 2010, https://www.huffpost.com/entry/mark-zuckerberg-we-buy-co_n_767338.

> reason we even went anywhere with this conversation was because I believed in Alex [Giphy's CEO], I believed in his, his team, and I believed in the culture that they'd built."

While plausible, the acquihire story begs the following question: why is it necessary for Facebook to acquire Giphy in order to benefit from the talent of its creative team rather than continue to interact with this team at arms' length? One possibility is that there are some frictions that an acquisition can alleviate. But then, it is not entirely clear what these frictions are, nor if an acquihire is the most efficient way to alleviate these frictions. Another possibility is that Facebook was concerned that if Giphy is acquired by a rival social media platform, it may lose access to Giphy's talent. By preemptively acquiring Giphy, Facebook eliminated this risk.[46]

It should be noted that if Giphy's talent is indeed unique, and if following the merger rival social media platforms are de facto foreclosed, then the merger in effect cuts their access to Giphy's talent. It is therefore far from clear that an acquihire is pro-competitive as the benefit that accrues to Facebook might come at the expense of rival social media platforms.

Benkert, Letina, and Liu (2024) formalize the idea that an acquihire may harm the acquirer's rivals and may therefore be inefficient. They study a model in which two firms compete in the product market and also compete for acquiring a startup (which operates in an unrelated product market) and integrating it into their own operations. They show that while an acquihire may boost the acquirer's profit, it always lowers the rival's profit. As a result, both firms pursue a preemptive acquisition in order to ensure that the rival does not acquire the startup. This race for preemption may render the acquisition inefficient because aggregate surplus may be lower than it is without an acquisition or under acquisition by the rival.

5.2. Evaluating the counterfactuals

A merger results in an SLC if it substantially lessens competition below the counterfactual level that would prevail absent the merger. Hence, a key element in assessing the Facebook-Giphy merger are the counterfactual scenarios, namely what would have happened but for the merger.

[46] Bar-Isaac, Johnson, and Nocke (2024) consider a third possibility: an acquihire might be intended to shut down the most relevant labor market competitor and thereby grant the acquirer monopsony power over employees. In their setting, acquihires may harm employees and be socially inefficient.

The CMA considered two counterfactuals. Under both, Giphy would have been able to secure sufficient resources to continue to innovate and develop its products, which is obviously crucial for the dynamic competition theory of harm advanced by the CMA.

Under the first counterfactual, Giphy would have continued to operate independently of Facebook, and would fund its investments with revenues from its Paid Alignment service and from other means, such as a platform/license fee or revenue sharing arrangements with API/SDK partners. Moreover, Giphy would have been able to receive further funding from some of its existing investors (CMA, 2021b, Paragraphs 6.41, 6.53). Under the second counterfactual, Giphy would have found an alternative acquirer, possibly another social media platform (CMA, 2021b, Paragraphs 6.121-122).[47]

Although the CMA based the two counterfactuals on extensive evidence, they both seem speculative due to the inherent difficulty to predict how high-tech markets will evolve and which technologies will appeal to consumers. This is especially true given the fast pace at which new technologies evolve which often makes it hard to even tell what the range of likely outcomes is and how likely each outcomes is.[48] The screenwriter William Goldman famously described the ability of Hollywood executives to predict which movies would succeed by saying that "nobody knows anything." Arguably, the same can be said about the ability to predict the success of new products in the high-tech sector. For instance, Yoffie, Gawer, and Cusumano (2019) study over 250 U.S. platforms (all attracted large investments) and find that 83% of them failed. The average life of the failed platforms is only 4.9 years, although standalone firms tend to have shorter lives - only 3.7 years on average - than firms that were acquired (7.4 years on average) or firms that were part of larger entities (4.9 years on average). Jensen et al. (2023) use data on 4.1 million apps at the Google Play Store from 2016 to 2019 and find that following the introduction of the General Data Protection Regulation (GDPR) in the European Union in May of 2018, entry of new apps was cut in half, and the number of apps which achieve some (high) level of success within, say, a

[47] Giphy's internal documents show that "Giphy was looking to some of its API partners… as well as other strategic partners (such as Playtika) for a minority investment in Giphy in order to ensure its continued operation and to fund further expansion" (CMA, 2021b, Paragraph 6.65).

[48] Courtney, Kirkland, and Viguerie (1997) argue that in practice, the uncertainty facing most strategic-decision makers falls into one of four broad levels: a clear enough future, alternative futures (a few discrete scenarios), a range of futures (the future outcome may lie anywhere within a range), and a true ambiguity (it is impossible to identify a range of potential outcomes, let alone scenarios within a range). Determining how high-tech markets will evolve often falls into the last category, which is why predictions about it are highly speculative.

year of entry fell roughly proportionally. These findings are consistent with the "nobody knows anything" view: the GDPR required developers to engage in potentially costly compliance activities. If success was predictable, then once the GDPR is introduced, only apps with low expected success would cease to enter, so the number of successful apps that enter should not have been affected by the introduction of the GDPR.

Giphy argued in a filing with the CMA that "there are indications of an overall decline in GIF use… due to a general waning of user and content partner interest in GIFs."[49] In particular, it stated that (i) "marketplace commentary and user sentiment towards GIFs on social media shows that they have fallen out of fashion as a content form, with younger users in particular describing GIFs as meant "for boomers" and a 'cringe,'" and (ii) "content creators are also finding less value in GIFs, with Giphy experiencing a drop in total GIF uploads… [and] also experienced a drop in the number of accounts created by content partners… and s drop in content partner uploads."

In fact, data shows that the percentage of websites using GIFs has declined from 62.7% in 2013, to 33.9% in 2018, and to around 22% since 2021.[50] Although this does not mean that the total usage of Giphy's services was declining, Hern (2022) argues that "the animated GIF is also comfortably millennial: invented in 1989, it pre-dates not only smartphones and social media but even the world wide web. It exploded in popularity alongside the rise of the web as the easiest way to add motion to a page but it slowly lost ground to other ways of showing pictures that required less of the limited bandwidth of the time." Moreover, an online survey conducted by Zoom in November 2022 reveals that only 20% of the participants love GIFs, 28% hate them, and 53% are indifferent.[51]

To further evaluate the two counterfactuals, it is worth recalling that Giphy provides GIFs and GIF stickers to users for free. Although many providers of free services monetize their services with ads, a large fraction of users access Giphy's GIF on API/SDK partner's platforms, so Giphy cannot show these users ads. In a sense then, Giphy's situation is reminiscent to that of online news publishers that claim that news aggregators like Google news free ride on their content and monetize it with ads while they alone bear the cost of content creation (see e.g., Calzada and Gil

[49] See "Giphy's Submission to the CMA on Remittal," 9 August 2022, https://assets.publishing.service.gov.uk/media/62fe118dd3bf7f06e5a1c454/Giphy_Submission_on_Remittal_18.8.22.pdf

[50] See https://w3techs.com/technologies/history_overview/image_format/all/y.

[51] See https://www.zoom.com/en/blog/how-you-used-zoom-2022/. The survey was conducted online by Zoom using SurveyMonkey in November 2022 among 2,800 total respondents.

(2020)). Although Giphy formed partnership with API/SDK partners and willingly allowed them to use its content, it is still the case that Giphy's partners were the ones who benefitted from the users' engagement generated by GIFs and were able to can monetize it by showing ads to users.

In principle, Giphy can overcome the monetization problem by charging API/SDK partners a fee for using their services. According to the CMA, charging API/SDK partners a platform fee was never Gpihy's "preferred option" and would not have allowed it to "build a scalable economic relationship with its partners" (CMA, 2021b, Paragraph 6.58), although it "was still an option that the company considered" (CMA, 2021b, Paragraph 6.59). The CMA concluded that "The evidence available to us is not conclusive on whether API partners would have ultimately agreed to pay a platform fee to GIPHY" although some key API partners "were actively discussing the terms of a platform fee/commercial arrangement." (CMA, 2021b, Paragraph 6.61).

Another way to monetize GIFs was to rely on the Paid Alignment service offered to brand partners. The CMA argued that the service has advantages over other types of advertising, as instead of appearing alongside content of interest to the user, "a Paid Alignment GIF in a message has been selected by the sender to express an idea or emotion to its recipient(s)… Because users are sending ads to their friends in conversation, Giphy Ads generate significant brand metrics lift" (CMA, 2021b, Paragraph 7.70).[52] However, advertising is generally viewed in the media and platforms literature as a nuisance and a price that users need to pay in order to receive free online content. For instance, Anderson and Coate (2005) model competition in over the air broadcasting and assume that the utility of viewers falls with the number of ads that they receive. Huang, Reiley, and Riabov (2018) estimate a demand curve for ad-supported music listening on Pandora and find that the quantity of hours listened is linearly decreasing with the number of ads per hour, which is consistent with the view of ads as a price that consumers pay. It is then unclear why users may wish to send friends in conversation commercial GIFs, at least on a large scale.[53] Moreover, there is nothing that prevents people from sending friends commercial ads even today, but other than influencer marketing who post ads in exchange for fees, I am not aware of individuals posting ads

[52] The CMA also mentions that an advertiser commented that "Advertising through private messaging comes with an air of credibility because you trust your friends and family" (see CMA, 2021b, Paragraph 7.71).

[53] The CMA essentially argues that while viewers get disutility from viewing ads when they are sent by advertisers, they get a positive utility when sent by friends. While this may be true, I am not aware of a theoretical foundation for the claim that the utility from a product (like an ad) may depend on how the consumer obtains the product.

on social media or sending each other ads.[54] It therefore seems that the commercial potential of the Paid Alignment service is limited.

An additional issue which casts doubt on the commercial potential of the Paid Alignment service is the fact that Giphy lacked a meaningful user base of its own, and could not provide advertisers with the ability to monitor and track return on investment closely, offer "direct response" ads with click through capability which allow users to buy a product, or control third-party app environments where the ads would be seen.

Although one has to be cautious given the "nobody knows anything" view, it seems that the commercial success of the Paid Alignment service is likely to be limited. In fact, the merging parties submitted that the demand of advertisers for the Paid Alignment service "was unproven, and to date had been limited to experimental ad budgets" (CMA, 2021b, Paragraph 7.51) and the CAT (2022, Paragraph 124) stated that "GIPHY's investors were, as the Decision records, sceptical as to whether GIPHY would succeed in making good its Paid Alignment advertising plans." The decision of Snap, the parent of Snapchat, to shut down Gfycat as of September 2023 after acquiring it in 2020, also points in this direction. Moreover, it is worth noting that Giphy's value has sharply declined over time: the company was valued in 2016 at $600M,[55] was acquired by Facebook in 2020 for $315M, and was then sold to Shutterstock in 2023 for about $53M.[56] This sharp decline is consistent with the idea that Giphy had a limited potential, albeit the price that Shutterstock paid may had been due to Facebook's reluctance to sell Giphy to a social media rival or the reluctance of social media rivals to acquire Giphy for fear of another antitrust intervention (both considerations would constrain Facebook's ability to find a suitable acquirer for Giphy and depress the selling price).

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[54] Online influencers sign contracts with firms to promote the firms' offerings in their online posts in exchange for a fee. The cost of influencer marketing is considerable: Leung, Gu, and Palmatier (2022) report that firms invested $13.8 billion in influencer marketing in 2021 and McKinsey & Company report that the influencer marketing economy was valued at $21.1 billion in 2023, see https://www.mckinsey.com/~/media/mckinsey/featured%20insights/mckinsey%20explainers/what%20is%20influencer%20marketing/what-is-influencer-marketing_final.pdf?shouldIndex=false

[55] See "GIF Site Giphy is Valued at $600 Million," by Rolfe Winkler, Wall Street Journal, October 31, 2016, https://www.wsj.com/articles/gif-site-giphy-is-valued-at-600-million-1477906202

[56] Indeed, the CAT (2022, Paragraph 124) stated that "it does need to be borne in mind, as the Decision makes reasonably clear, that the perception was that GIPHY's was a business declining in value." Interestingly, Shutterstock argued in a recent earnings call that "Giphy has the potential to be hundreds of millions of dollars in revenue." It remains to be seen if that will turn out to be the case. See "Shutterstock, Inc. (NYSE:SSTK) Q4 2023 Earnings Call Transcript," Insider Monkey Transcripts, February 22, 2024, https://finance.yahoo.com/news/shutterstock-inc-nyse-sstk-q4-151745296.html?

The above discussion suggests that it is not obvious that Giphy could have survived as an independent firm without being acquired. But then, to the extent that the acquirer would have been another social media platform, the merger might had raised similar concerns for loss of potential competition in display advertising, or vertical foreclose of social media rivals.

6. Evaluating the CMA's theories of harm

In this section I discuss the standard of proof used by the CMA to assess the merger and the two theories of harm that it relied on to block the merger.

6.1 The standard of proof in merger control

The standard of proof in merger control in the UK is a balance of probabilities standard: a merger is blocked if the CMA thinks the probability that the merger will create an SLC is above 50%; otherwise, the merger is allowed to go through (see CMA, 2021b, Paragraph 15, and Walker, 2023). Furman et al. (2019) argue that the assessment of digital mergers should weigh up both the likelihood and the magnitude of the impact of the merger and advocate a "balance of harms" approach, where the probability of each outcome is weighted by its consumer surplus effect. They argue that this approach "would only broaden the set of mergers which may be found problematic" (Furman et al., 2019, Paragraph 3.97). The balance of harms approach is also advocated by Motta and Peitz (2020), and as mentioned earlier, Cabral (2023) estimates that replacing a balance of probabilities approach with a balance of harms approach would lead to a 15% welfare increase.

To examine the proposal to replace the balance of probabilities standard with a balance of harms, consider a merger which, if approved, leads to an outcome x (say consumer surplus), where x is distributed over an interval x_0 to x_1 according to a distribution function, F(x).

Absent a merger, the counterfactual outcome is c; this outcome may also be uncertain ex ante. Let $\bar{c}$ be the expected value of the counterfactual outcome. The merger causes an SLC if $x < \bar{c}$. Under a balance of probabilities, the merger is blocked if it is more likely than not to cause an SLC. That is, if

$$\int_{x_0}^{c} f(x)\,dx = F(c) \leq 1/2.$$

Since the median outcome, $\hat{x}$ is such that F($\hat{x}$) = 1/2, it follows that a balance of probabilities amounts to assessing if $\hat{x}$ is above or below $\bar{c}$. If $\hat{x} < \bar{c}$ the merger is blocked and if $\hat{x} > \bar{c}$ the merger is approved.

Under a balance of harms, the merger is blocked if the expected outcome is below the expected outcome under the counterfactual:

$$\int_{x_0}^{x_1} xf(x)dx = \bar{x} \leq \bar{c}.$$

Comparing the two standards reveals that in both cases the expected outcome under the counterfactual is compared with either the median outcome under the merger or the expected outcome under the merger. It is then not immediately obvious which approach has an advantage over the other and it is also not immediately obvious which approach is easier to apply in terms of the information needed for the analysis. Note in particular that the uncertainty regarding the outcome under the counterfactual (how spread out is the distribution of c), does not affect the comparison of the two standards.

The Furman report (2019) states (in paragraph 3.100) that a balance of harms test "would provide a strong, clear, rational, economically sound approach to appraising mergers" because it takes into account not only the "likelihood" of outcomes but also their "magnitude." But then the above equations show that the "magnitude" of outcomes is also taken into account under a balance of probabilities test. The Furman report also argues that the balance of harms address "underenforcement of digital mergers" due to using the balance of probabilities test. However if $\hat{x} < \bar{x}$ (the distribution of x is skewed to the right), the balance of probabilities will lead to more mergers being blocked than a balance of harms test, so to the extent that a balance of probabilities results in underenforcement, a balance of harms will only exacerbate the problem.

6.2 Harm to dynamic competition in the online ads market

The first theory of harm that the CMA advanced was horizontal: the merger would lead to a loss of dynamic competition in display advertising in the UK. Walker (2023) emphasizes that "what the CMA was claiming is that the process of competition over innovation between Facebook and Giphy was likely to yield benefits to consumers. It would spur both parties to invest and seek to innovate." He also argues that when considering whether a merger might harm dynamic

competition, "the focus of the analysis is likely to be more on the capabilities of the firms involved, and of other firms, than on the specific products that firms currently produce."

Before proceeding, four comments are in order. First, the distinction between the loss of future competition and the loss of dynamic competition does not strike me as particularly useful. To an IO economist, it seems obvious that at least in principle, a merger with a potential entrant can harm competition both because the entrant will no longer compete in the future as an independent firm, and because the merger may weaken the incentives of merging firms to innovate even before entry occurs. Indeed, the CMA admits that the losses of future competition and dynamic competition are interrelated and may depend on overlapping evidence (MAG, Footnote 102).[57] Importantly, the incentives of firms to innovate depend on the difference between their expected future profits with and without innovation. These profits in turn clearly depend on how likely future competition is and how intense it is expected to be. In particular, according the 2021 MAG (MAG, Paragraph 5.18) "existing firms may invest in the present in order to protect future sales from dynamic competitors. Dynamic competitors making investments in the present will do so in order to win new sales in the future, including by winning sales from other suppliers." This implies in turn that if the likelihood of entry and/or the strength of competition conditional on entry are not high, neither will be the incentives to innovate. For these reasons, it is unclear how the assessment of dynamic competition can be separated from that of future competition.

Second, as the CAT (2022) recognized, dynamic competition requires a much more involved analysis than static or even future competition because innovation implies that the market keeps evolving and hence it is not easy to state or justify the analytical framework used to evaluate the merger. The CAT (2022, Paragraph 109) offered a number of factors that may help to identify mergers which are likely to lessen dynamic competition, including the motivation for the merger (e.g., killer acquisitions vs. "life-saving" acquisitions), the acquisition value (a high value may indicate that an SLC is more likely),[58] the degree to which the market is contestable (i.e., the likelihood that entry will replace the acquired firm), and monetization (i.e., how strong the entrant would have but for the acquisition). However, all four factors are also indicative of the likelihood and intensity of future competition. For example, contestability makes future competition more

[57] See also Bon et al. (2023, Footnote 4).
[58] Fumagalli, Motta, and Tarantino (2023) study a model in which a high acquisition price indicates that the target is more likely to succeed as an independent firm and therefore the acquisition is more likely to harm welfare due to a suppression of competition if the target is not killed and also the suppression of innovation if the target is killed.

likely, monetization makes it more intense, and in both cases, the acquirer may be more interested in killing the target firm and may be willing to pay more to acquire it.

The third comment is that unlike the effects of mergers on quantities and prices, which have been extensively studied and are well understood, the literature on the effects of mergers on innovation is still in its infancy. Lefouili, and Madio (2024) review the existing literature and find mixed results on the effect of horizontal mergers on firms' investments both theoretically and empirically.[59] They note that empirical studies on mergers and acquisitions in digital markets are scarce. As a result, it is unclear how one can make the case that the Facebook-Giphy merger is more likely than not to substantially lessen dynamic competition. One reason why it is hard to predict the effects of horizontal mergers on innovation is that in general, a merger boosts profits both with and without innovation, so its overall effect on the incentive to innovation (which depends on the difference between the two) is not obvious. It is true that the 2021 MAG state that "uncertainty about the outcome of a dynamic competitive process does not preclude the CMA from assessing the impact of the merger on that dynamic process" (MAG, Paragraph 5.20). I also agree with Kokkoris and Valletti (2020) that the fact that innovation is by definition an uncertain process should not necessarily imply that it "cannot and should not be assessed." My point however is that one has to be extra cautious when applying theories of harm based on the loss of dynamic competition, given the current state of the relevant literature.[60]

A fourth and related comment is that one cannot take it for granted that innovation necessarily benefits consumers.[61] In the context of the Facebook-Giphy merger, the innovation in question was the Paid Alignment service and competition was in display advertising. But then, advertising is viewed in the media and platforms literature as a nuisance and a price that users need to pay to get free access to content. Accordingly, more competition in the display advertising market, which results in more display advertising, harms users rather than benefits them. One can argue that such competition may lower the cost of advertising and that the resulting cost savings

[59] They note that theoretical results on the impact of horizontal mergers on innovation depend on numerous factors, such as the initial level of competition in the industry, the technological landscape, whether investments are cost-reduction or quality-enhancing, and whether the target firm is an actual or a potential competitor. They also note that the empirical literature finds that similar consolidation practices may yield different outcomes across different industries. See also Kokkoris and Valletti (2020).

[60] In this regard, it is important to bear in mind that the dynamic effect of innovation on consumers can be orders of magnitude larger than the static effect of higher prices or lower quantities. See Cabral (2017).

[61] For example, innovations in cyber intelligence, spyware, or face recognition technologies raise serious ethical concerns and many commentators warn that they may cause more harm than good.

will be passed on, at least in part, to consumers through lower prices of goods and services, or that innovations in display advertising may make ads less intrusive. But then, these possibilities are not immediately obvious and one has to assess them and their ultimate effect on consumers.[62] As far as I can tell, the CMA simply assumed that more competition and more innovation in display advertising are necessarily beneficial to internet users.

Turning to the CMA's concern about the loss of dynamic competition in display advertising, it is worth recalling that in 2020, Facebook's advertising revenues exceeded $84bn, whereas Giphy's advertising revenue was estimated at merely $27.5m, which is 0.03% of Facebook's advertising revenues. Moreover, the merging firms argued that Giphy's maximum potential revenues with Paid Alignments in the UK (based on its UK user traffic) would have accounted for less than 0.01% market share in the UK digital advertising space (CMA, 2021a, Paragraph 181). This sounds negligible. One can of course argue that Paid Alignment was only in its infancy and that with time, it would have grown up substantially. However, as I already discussed in Section 5.2, there are several reasons why this is doubtful.

First, Giphy cannot monetize GIFs that appear on API/SDK partners' apps unless these are Paid Alignment GIFs. In fact, Facebook's platforms alone account for more than half of Giphy's API traffic (CMA, 2021b, Paragraph 8.94). It then seems that Giphy's ability to compete successfully with Facebook when it actually relies on Facebook to host its GIFs is limited. In principle, if Facebook believes that competition from Giphy becomes a problem, it can always stop working with Giphy or demand that Giphy shares its advertising revenue with Facebook. Second, Giphy's ads are anyway of low value to advertisers because Giphy cannot provide advertisers with the ability to monitor and track return on investment closely, offer "direct response" ads, or control third-party app environments where the ads would be seen. Third, the commercial potential of the Paid Alignment service was "unproven" and investors were "skeptical" about its likely success, and its business model was based on the idea that users will send friend commercial ads which are viewed in the media and platforms literature as a nuisance.

[62] For example, Varian (2022) claims that at least in a simple model, the cost of advertising should have no effect on the prices of goods. In his model each consumer has a willingness to pay v which is distributed in the population according to a distribution function F(v). Consumers buy only if $v \geq p$, so the probability of buying is 1-F(v). The number of consumers, a, can be increased by advertising at a cost of km(a), where k is a shift parameter and m is increasing and convex. If the firm's cost if c, its profit is $\pi = a(1-F(p))(p-c) - km(a)$. By inspection, π is separable in p and a, implying that an increase in k, which increases the cost of advertising, has no effect on the profit maximizing price.

Given the above, it is far from clear that the merger would have been harmful and it is also far from clear that in case of a harm, the harm would have been substantial. In fact, the Austrian Cartel Court, which also reviewed the case, saw no horizontal competition concerns due to the merger.[63] Moreover, assessing the likelihood of a harm "involves difficult questions of judgement" (CAT, 2022, Paragraph 125). It is not clear from the case how the CMA can respond to the claim "based on the evidence, the probability that the merger will result in an SLC is below 50%." Clearly, the response "you may well think so, but we think otherwise" is not very convincing.[64]

As to the extent of the harm, Bon et al. (2023) write that the CMA's finding that the merger would result in an SLC was based on: "Meta's significant market power in display advertising; GIPHY's strong position as the leading provider of an important social media engagement tool; GIPHY's pre-merger efforts to develop an innovative advertising model that had the potential to compete with Meta; the potential for GIPHY's business model to achieve network effects - for example in partnership with other social media platforms; and high barriers to entry in display advertising, which GIPHY was relatively well placed to overcome." These factors notwithstanding, the question remains how significant the Paid Alignment service is. If, as the evidence suggests, it is only a marginal outlet for display advertising, then it is hard to argue that eliminating this service substantially lessened competition.

It is true that in the past, the OFT (the CMA's predecessor) approved the Facebook-Instagram and the Google-Waze mergers due to "the uncertainty surrounding whether Instagram's and Waze's potential would have been realized" (Argentesi et al., 2019). In retrospect, these decisions seem to have been way too cautious. It is also true, as Argentesi et al. (2019) argue, that

> "Rarely, if ever, will the Authorities find conclusive evidence of future growth: potential competition ToHs will always entail a certain degree of uncertainty. If the Authorities wish to pursue this type of ToH in the future, then they should be willing to accept a greater degree of uncertainty in their evaluations."

[63] https://www.bwb.gv.at/en/news/detail/meta-facebook-giphy-merger-afca-appealing-against-conditional-clearance
[64] Although the CAT upheld the CMA's decision it stated that "This application is not an appeal on the merits, but a judicial review. It is our task not to consider whether the CMA has "got it right", but whether the decision it made was lawful or not… In this regard, we have no hesitation in concluding that the decision made by the CMA was one that it was entitled to make" (CAT, 2022, Paragraphs 125-126).

However, in the present case, it seems that the CMA took an optimistic view about Giphy's prospects as an independent firm, its ability to spur innovation, and the benefits of the resulting innovations to users. Moreover, although it is true that GIFs enhance users' engagement on social media platforms, they are merely an add on and as such, seem far less important than a video-sharing platform like Youtube or a turn-by-turn navigation platform like Waze.

Finally, in hindsight, we know that Giphy was eventually acquired by Shutterstock, which provides access to a library of audio, image, and video content, that are arguably complementary to Giphy's library of GIFs. The CMA's intervention then seem to have led to a good outcome. The caveat though is that the price that Shutterstock paid for Giphy - $53M - is only a fraction of the $315M paid by Facebook and a fraction of the amount invested in Giphy, which is around $150M.[65] Hence, while users still get access to Giphy's services as the CMA expected, without Facebook's acquisition, Giphy might have been a commercial failure.[66] This would certainly have had negative implications for the incentives of entrepreneurs to innovate and on their ability to raise funding from outside investors.

6.3 Input foreclosure of rival social media platforms

The second theory of harm advanced by the CMA was the concern that "the Merger may lead to Facebook foreclosing access to GIPHY's services to rival social media platforms in order to harm its rivals' current and future ability to compete in social media and, as a result, in display advertising" (CMA, 2021b, Paragraph 8.2). The benefit to Facebook is that such input foreclosure may divert users to Facebook's platforms or weaken rivals. This benefit may materialize even if rival social media platforms can switch to Tenor, because foreclosure renders Tenor the only remaining meaningful provider of GIFs. As in the Ordover, Saloner, and Salop (1990) model of input foreclosure, this situation may allow Tenor to worsen the terms of supply.[67] For example, it may lower the quality of its service (which is supplied for free) by requesting more data from

[65] See https://www.cbinsights.com/company/giphy/financials (reporting that Giphy raised $147.52M) and https://tracxn.com/d/companies/giphy/__8N4Vm_lVpNFA5mo66sPhwKYGopOdbCh1WA5fx3ICMv4/funding-and-investors (reporting that Giphy raised $152M).

[66] In fact, even the amount that Facebook paid for Giphy is not very high: Jin, Leccese, and Wagman (2022) find that the average deal value of a GAFAM acquisition during the 2010-2020 period was $1,548M which is almost 5 times higher than the amount paid by Facebook.

[67] In the Ordover, Saloner, and Salop (1990) model of input foreclosure, a vertically integrated firm commits not to supply an input to a downstream rival in order to increase the bargaining power of the rival upstream supplier vis-a-vis the downstream rival and thereby weaken the downstream rival.

API/SDK partners, or prioritize innovation and product development to benefit Google's own commercial interests and product requirements over those of social media platforms. The associated cost seems limited given that Giphy did not monetize GIFs, except for the Paid Alignment service, which Facebook discontinued anyway after the merger. Hence, even if the benefit to Facebook from input foreclosure was not large, without a significant cost, it seems that the concern for input foreclosure was real. Moreover, the harm here is to social media users that may not get access to Giphy's GIFs after the merger, which by revealed preferences they like and get utility from.

Apart from an outright foreclosure, the Facebook-Giphy merger could have also resulted in a de facto foreclosure of rivals along the lines of Allain, Chambolle, and Rey (2016).[68] That is, after the merger, Facebook may have had a much stronger incentive to leak to Giphy technical information it gets in its dealings with Giphy's rivals like Tenor, while Giphy may have had a much stronger incentive to leak to Facebook technical information it gets in its dealings with Facebook's social media rivals. The latter information could allow Facebook to identify competitive threats, react to emerging market trends before rivals can, and target its efforts in certain narrow areas (CMA, 2021b, Paragraph 8.102). There is evidence in the case that the concern for de facto foreclosure due to leakage of technical data was real. For example, the CMA (2021b, Paragraph 8.102) notes that

> "rival platforms may be unwilling to share such data with Facebook. Facebook's requirement to share this data would thus be equivalent to raising the price of GIPHY's services to third parties. Such platforms would have the option to stop using GIPHY and either remove the GIF facility altogether, or switch to another provider (ie Tenor or a smaller GIF provider). In the former case, the result would equate to total foreclosure… In the latter case, the lack of a range of effective

[68] Allain, Chambolle, and Rey (2016) consider two competing downstream firms which first make value-enhancing investments and then buy an input from two upstream suppliers. To buy the input, downstream firms need to share technical information with the supplier. Hence, when upstream supplier U1 merges with downstream firm D1, the other downstream firm, D2, is reluctant to deal with U1, as its technical information may leak to D1, which can use it to gain a strategic advantage in the downstream market. The integrated supplier U1 has an incentive to leak D2's technical information to D1 because after the merger it shares D1's profit.

> alternatives, as evidenced above means that the platform would face a lower quality service in case of switching to an alternative GIF provider, including Tenor."[69]

The merging parties did not have good arguments why the concern for input foreclosure was not real, expect perhaps for pointing out that the CMA has been unable to find any internal documents supporting the idea that foreclosure was part of Facebook's plans for the merger, and this "speaks volumes about the lack of incentives that Facebook has in pursuing foreclosure strategies" (CMA, 2021b, Paragraph 8.148). Moreover, as already mentioned, although Meta appealed the CMA's decision to the CAT, it did not seek to review the vertical SLC finding.

However, it can be argued that the concern for input foreclosure could have been alleviated by appropriate conduct remedies. Indeed, Facebook submitted that an open access remedy can be as effective as a full divestment of Giphy, but less costly. It proposed an open access remedy with the following commitments: (i) Facebook would maintain access to Giphy's library for existing and new API users under the same terms and conditions as pre-Merger; (ii) access would not be conditional on sharing user-specific information with Facebook, and Giphy's API users will remain free to use proxy servers or cache Giphy traffic, as they are permitted to do per-merger, and (iii) Facebook would not use, without the consent of API users, any individually identifiable user-level or aggregate data obtained through the Giphy API for Facebook's advertising business in the UK (see CMA 2021b, Paragraph 11.206).[70]

Kwoka (2017) reviews and evaluates merger remedies and argues that in general, conduct remedies have inherent limitations because "it can be quite difficult to write, monitor, and enforce a conduct remedy against a party whose incentives lie elsewhere and who has the ability to undermine the remedy." However, he argues that "not all circumstances are equally likely to result in difficulties or failures." One of the examples he mentions for conduct remedies that can work

[69] The concern was not merely hypothetical. The CMA stated that "we are aware of at least one third party platform that chose to switch away from GIPHY to a different provider following the Merger as a result of the perceived risk of Facebook collecting more data on its users. A second third party platform told us that it would 'very likely switch' away from GIPHY in response to a hypothetical scenario in which GIPHY required it to provide more user data, and that instead of paying for additional measures to prevent 'data leakage' (ie the transfer of user data to Facebook), it would rather stop using GIPHY's service altogether." See CMA (2021b, Paragraph 8.103).

[70] Apart from the open access remedy, Facebook also proposed two more remedies: (i) making it possible for Giphy's rivals to use Giphy's library to offer their own paid alignment service based on Giphy's database, and (ii) creation and sale of a white label copy of Giphy's content library and a licence to use Giphy's search algorithm (and/or other essential technology) for five years. See CMA (2021b, Paragraphs 11.212-11.217).

are must-supply agreements when the product or service is simple and standardized, when the technology is stable, and also when the price and other important terms of the contractual agreement are easier for an outside party to evaluate. It seems that the conduct remedies proposed by Facebook fall into this category. In fact, the Austrian Cartel Court has approved the Facebook-Giphy merger subject to remedies similar to those proposed in the UK on the grounds that they were sufficient to alleviate the concerns for vertical SLC.[71]

The CMA however rejected the open access remedy that Facebook proposed, arguing that it would not be effective, mainly because "the development and innovation of GIPHY's business under the Open Access Remedy is likely to be directed in the interests of its owner, Facebook, rather than the interests of the third parties seeking access" (see CMA, 2021b, Paragraphs 11.252). It then concluded that a conduct remedy "cannot, in our view, be designed to comprehensively address the substantial lessening of competition that we have found to arise from these vertical effects" (CMA, 2021b, Paragraph 11.295). This argument rests however on the importance of innovation, but then, the main innovation that the CMA emphasized was the Paid Alignment service, which seems rather modest. It is also unclear to what extent there are differences between the interests of different social media platforms and hence how large this potential problem is. It is therefore not obvious that the open access remedy would have been so unsatisfactory that blocking the merger was the only viable solution.

7. International comity

Another interesting feature of the Facebook-Giphy merger is that the merger was blocked by the CMA despite the fact that both firms are U.S. based, and although Giphy did not serve UK advertisers, nor advertised to UK users, and in fact had no revenues outside the U.S. Obviously, it would have been much more natural for the merger to be reviewed by the DOJ or the FTC. In fact, the CAT (2022) stated that the outcome of the CMA's decision is an "interference in a merger situation that is largely taking place outside the jurisdiction."

The merger was not reviewed in the U.S. because it did not pass the Hart-Scott-Rodino (HSR) thresholds and was therefore not notified to the DOJ or the FTC (see Congressional Research Service, 2021). Martínez (2022) reports that prior to the merger, Giphy paid dividends

[71] https://www.bwb.gv.at/en/news/detail/meta-facebook-giphy-merger-afca-appealing-against-conditional-clearance

which lowered the value of its assets below the threshold in order to avoid the need to notify the merger. In a sense then, the merger is an example for a "stealth consolidation" which as Wollmann (2019) finds, is quite common and is highly problematic.[72] The CMA's decision to review the case suggests that stealth consolidation may become harder when firms operate in multiple jurisdictions, as a merger may go under the radar in one jurisdiction, but may be investigated in another. In other words, merging firms can run but can't hide. In that sense, the CMA's investigation may have exerted a positive externality on consumers in other jurisdictions by preventing a competitive harm that would have otherwise gone unnoticed.

The UK Enterprise Act 2002 provides the CMA with broad discretion in asserting jurisdiction over mergers that may affect a UK market.[73] Following Brexit, the CMA has begun investigating international mergers even if they do not have a clear UK dimension. In 2019, the CMA investigated, but eventually cleared, the Roche-Spark merger. Roche is Swiss and Spark is U.S. based and had no UK sales.[74] In 2020, the CMA blocked the Sabre-Farelogix merger; both firms are U.S. based and like Spark, Farelogix had no UK sales (Doyle et al. 2023).[75] The CMA based its decision on the grounds that Farelogix plays a central role in spurring innovation and it strengthens disruption, so eliminating it will reduce innovation, and will strengthen the Sabre's bargaining position vis-a-vis customers. Interestingly, the CMA issued a final report on the merger even though before it was published, the U.S. District Court for the District of Delaware ruled against the DOJ's decision to challenge the merger.

Facebook and Giphy submitted that the CMA had no jurisdiction over the merger because (i) they are U.S. entities and Giphy does not have a turnover, assets, employees, or any physical

[72] Wollmann (2019) finds that 32% of all HSR-related investigations prior to the amendment of the thresholds would have been notified and reviewed and some would have been blocked. After the amendment though, antitrust investigations among newly-exempt deals fall to almost zero while mergers between competitors rise sharply. Cunningham, Ederer, and Ma (2021) also find evidence for stealth consolidation in the pharmaceutical industry: they observe clear bunching of deals right below the HSR threshold, but only for deals in which the target has projects that overlap with the acquirer.

[73] Under Section 22(1) of the act, the CMA is required to investigate and report whether a "relevant merger situation has been created," and if so, whether it "has resulted, or may be expected to result, in a substantial lessening of competition within any market or markets in the United Kingdom for goods or services."

[74] Given that Spark had no sales in the UK, the CMA based the share of supply test (which is needed to determine that "a relevant merger situation has been created") on the number of workers employed in research activities in the UK. See https://www.gov.uk/cma-cases/sabre-farelogix-merger-inquiry and https://www.gov.uk/cma-cases/roche-holdings-inc-spark-therapeutics-inc-merger-inquiry.

[75] See https://www.gov.uk/cma-cases/sabre-farelogix-merger-inquiry. The CMA's decision was upheld on appeal by the Competition Appeal Tribunal in May 2021.

presence in the UK, (ii) Giphy's services in the UK were provided entirely free of charge,[76] (iii) from an international comity perspective "it is exorbitant" for the CMA to review the merger, and (iv) asserting jurisdiction over the merger would make UK merger enforcement "highly unpredictable" and create "high levels of business uncertainty." Some third parties also submitted that the CMA was overreaching its mandate, and argued that this could stifle innovation and dynamism within the technology sector. And, while the CAT (2022) stated that "we are in no doubt that there is jurisdiction for the CMA to intervene in this case," it nonetheless stated that "the demands of comity do require the CMA to be at least conscious of the international dimension" and that "in international cases, regard needs to be had (even if it is not determinative or even immaterial) to the wider context."

These arguments however fail to deal with the following question: suppose that merging parties avoid merger notification in their main jurisdiction. Should we then accept the merger as fait accompli, or should we applaud an antitrust agency in a different jurisdiction that pays attention to the merger despite the fact that it is has not been notified and then reviews it?

8. Conclusion

Merger control involves both type I and type II errors. Type I errors arise when an anticompetitive merger is allowed to go through. Types II errors arise when a pro-competitive merger is blocked. Until recently, antitrust agencies have adopted a very lenient approach when reviewing mergers in the high-tech sector and avoided type II errors by not opposing any big tech merger. This lenient approach has been met with a lot of criticism and many commentators argue that it has led to excessive amount of type I errors. Examples for mergers that were criticized on this ground include Google-Doubleclick or Facebook-Instagram.

Clearly, errors are inevitable in merger review because the process is forward looking and involves predictions about an uncertain future. It is quite natural to argue that the balance between type I and type II errors was tilted for too long in favor of avoiding type II errors and that it is now

[76] It is not clear why this argument was relevant: the CMA's "Mergers: Guidance on the CMA's jurisdiction and procedure," published in 2014, states in Paragraph 4.6, that "there is no requirement that the transferred activities generate a profit or dividend for shareholders: indeed, the transferred activities may be loss making or conducted on a not-for-profit basis." Moreover, Giphy did have revenues outside the UK.

time to restore the balance by putting more weight on avoiding type I errors.[77] Indeed, Shapiro (2018) writes in a thought provoking paper that

> "Antitrust was born and then fortified during a period of populism in the United States in the late 19th and early 20th centuries. Likewise, today's populist sentiments–by which I mean the widespread and bipartisan concern that the deck is stacked in favor of large powerful firms–represent an opportunity, indeed a plea, to strengthen antitrust enforcement."

The Facebook-Giphy merger indicates that the CMA is willing to listen and respond to the plea. It also suggests that antitrust agencies are now willing to commit types II errors in order to avoid type I errors. For instance, Smith and Erciyas (2022) write in their review of the Facebook-Giphy merger that "the CMA has made it clear to everyone who will listen that it intends to prevent the accumulation of further market power through acquisitions by a company that already has a strong position."

Although the writing was on the wall and it was clear that it is only a matter of time until an antitrust agency will oppose a big tech merger, it is hard to escape the feeling that the Facebook-Giphy merger was not a natural candidate to start this trend. Regarding the horizontal concern, it is not clear from the case how one can tell if the merger was more likely than not to give rise to an SLC; the actual harm to consumers had the merger been allowed to go through would have probably been limited and in any event, most of it would have affected consumers outside the UK; and the innovation that the CMA was concerned about - the Paid Alignment service - seems very modest with unclear benefits to social media users. And, while the vertical concern was based on a standard input foreclosure theory of harm, it is not entirely clear why it could not have been alleviated by appropriate conduct remedies.

The question of course is "Ok, but what was the harm from blocking the merger?" This is a good question because as I already mentioned, in hindsight, the outcome - Giphy was eventually

[77] Devlin and Jacobs (2010) write that "Error is uniquely prevalent" in antitrust law "because antitrust is routinely called upon to deliver answers to unsolvable problems…" They go on to claim that "courts, agencies, and academics have reacted to antitrust's unusual vulnerability to error by adopting a bias in favor of false negatives (Type II errors)." They argue that this bias stems from Judge Easterbrook's view that "judicial errors that tolerate baleful practices are self-correcting, while erroneous condemnations are not" (Easterbrook, 1984). In other words, Type I errors are perpetual and hence worse than type II errors which are ephemeral due to the market's "self-correcting" nature.

acquired by Shutterstock - seems to be efficient. One can then argue that the CMA sent a strong signal to big tech firms that future acquisitions will be heavily scrutinized and that even if merging firms manage to escape scrutiny in one jurisdiction they may still be scrutinized in another jurisdiction. One can argue that even if the decision was incorrect, this was a price worth paying.

This argument notwithstanding, it seems that the decision generates considerable uncertainty regarding antitrust policies. As Smith and Erciyas (2022) put it:

> "… the issue that should be controversial is that the threshold for finding an SLC is now set so extremely low by the CMA that the CMA has handed itself the ability to prohibit almost any merger it chooses to… If the CMA can rationally describe how a merger is likely to lessen competition at all, with a forward-looking analysis that is based on at least some evidence, then it is difficult for the merging parties or even the CAT to interfere with the CMA's margin of appreciation to conclude that the lessening of competition is 'substantial' in its view."

Needless to say, uncertainty regarding the enforcement of antitrust policies is not a good thing and may adversely affects the incentives of entrepreneurs, who rely on an acquisition by an established firm as an exit strategy, to innovate. Only time will tell what the legacy of the case will be: will it be remembered as a case that helped taming the excessive power of big tech giants or a case that had a chilling effect on future innovations.

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