

**DIRECTORATE FOR FINANCIAL AND ENTERPRISE AFFAIRS
COMPETITION COMMITTEE**

Cancels & replaces the same document of 7 May 2020

Start-ups, Killer Acquisitions and Merger Control – Background Note

By the Secretariat

10-12 June 2020

This document was prepared by the OECD Secretariat to serve as a background note for Item 2 at the 133rd Meeting of the Competition Committee on 10-12 June 2020.

The opinions expressed and arguments employed herein do not necessarily reflect the official views of the Organisation or of the governments of its member countries.

More documentation related to this discussion can be found at:
<http://www.oecd.org/daf/competition/start-ups-killer-acquisitions-and-merger-control.htm>

Mr Antonio CAPOBIANCO
[Email: Antonio.CAPOBIANCO@oecd.org]

JT03461595

Start-ups, Killer Acquisitions and Merger Control

Background note by the Secretariat*

Start-up or nascent firms play a vital role in competitive markets, but traditionally, their relevance to merger control has been limited to providing evidence that a relevant market was likely to become increasingly competitive. Recent empirical work has shown that in some cases the acquisition of a nascent firm has triggered the loss of not only a competitive constraint, but also a product (as when a retail acquisition results in a store closure). Such cases have been labelled ‘killer acquisitions’. Killer acquisitions are therefore a theory of harm, which is a particular variation on the more general ‘loss of potential competition through acquisition of a nascent firm’ theory of harm.

The risk that a loss of potential competition can harm consumers is well established, and research, ex-post assessment and case-law continue to identify new examples of such cases involving nascent firms. We see no reason why these risks should be ignored, nor that such concerns are likely to be confined to specific industries. The necessary conditions for a killer acquisition are however more specific than for a ‘loss of a nascent competitor’ and hence are likely to be rarer. Whether an agency chooses to go beyond meeting the evidentiary threshold required to substantiate the simpler potential competitor theory of harm will likely depend on whether the additional harm from a product withdrawal, over and above the loss of price and quality competition constraints, would affect either the weighing of harm against possible efficiencies, or the expected harm posed by a transaction. It may also reflect a decision to investigate such acquisitions as exclusionary strategies via ex-post investigation where necessary.

We explore the extent to which nascent acquisitions can be investigated and challenged when necessary under existing merger control frameworks. We identify the need to conduct an in-depth counterfactual analysis, to consider new investigative tools, and to ensure that any claimed efficiencies are tied to the specific transaction in question. However, while the framework can, should, and is already being flexed, we suggest that an important shift in merger policy is required in this area. Such a shift might be facilitated through the explicit adoption of an expected harm test to remove a systematic bias against challenging mergers, through changes to notification processes, and by clarifying and hence placing a greater weight on the value of potential competition. We also see considerable merit in legislating to reverse the burden of proof in some circumstances, for example by creating a rebuttable presumption of anticompetitive effects for nascent acquisitions by dominant incumbents, either in general, or where the acquisition increases the risk of competitive harm, for example that there were a reasonable (25-30%) prospect of harm.

* This paper was written by Chris Pike of the OECD Competition Division, with the assistance of Sophie Flaherty and comments from Antonio Capobianco, Wouter Meester, James Mancini, Pedro Caro de Sousa, and Anna Barker (all from the OECD Competition Division).

Table of contents

Start-ups, Killer Acquisitions and Merger Control	2
1. Introduction	5
2. Definitions and theory of harm	6
3. Are nascent acquisitions being investigated?	8
3.1. Thresholds	13
3.2. Agency prioritisation decisions	15
4. How should nascent acquisitions be investigated?	16
4.1. Relevant counterfactual	16
4.1.1. The relevant time frame	16
4.1.2. Heightened uncertainty	17
4.1.3. Counterfactual volumes	19
4.1.4. Evidence gathering	21
4.1.5. Accounting for the kill zone	22
4.2. Competitive assessment	23
4.2.1. Framework for assessment of nascent acquisitions	23
4.2.2. Evidence for assessing whether a nascent acquisition is anticompetitive	24
4.2.3. Framework for assessment of killer acquisitions	27
4.2.4. Evidence for assessing whether an anticompetitive nascent acquisition is also a killer acquisition	28
4.3. Assessment of efficiencies	29
4.3.1. Efficiencies in development	29
4.3.2. Dynamic efficiencies	30
5. What, if any, broader policy response is required to address the challenges that arise from killer and nascent acquisitions?	32
5.1. Economics and rebuttable presumptions	33
5.2. Expected harm test	37
5.3. Threshold and Notification adjustment	38
5.3.1. Transaction value thresholds	38
5.3.2. Targeted approach	41
5.4. Ex-post review	42

6. Conclusion	43
---------------	----

References	49
------------	----

Boxes

Box 1. Pacific Biosciences / Illumina	7
Box 2. Pharmaceuticals - Mallinckrodt	9
Box 3. Ventilators - Newport Medical Instruments / Covidien	10
Box 4. FTC challenges Ossur/College Park	11
Box 5. Merger notification in the EU	13
Box 6. Stylized example of counterfactual probabilities	18
Box 7. Facebook/Instagram Merger	20
Box 8. PayPal/iZettle	26
Box 9. Size of Transaction Thresholds: the case of Germany and Austria	40

1. Introduction

1. Start-up or nascent firms play a vital role in competitive markets. They are a key source of new ideas and products, disruptive innovation and maverick business models. They can help break up concentrated markets, force less efficient incumbents to improve or exit, and thus help ensure that markets reduce inequality. They are also particularly vulnerable both to exclusionary unilateral conduct and to the distortionary effects of rent seeking by incumbents that lobby for subsidies, anticompetitive regulation, or trade protection. Competition agencies are therefore often keen to ensure that such nascent firms enjoy a level playing field and the opportunity to compete on the merits without the threat of exclusionary behaviour from dominant incumbents.

2. Traditionally however, their relevance to merger control has largely been limited to their role as a new entrant. In this role they might provide a signal to an agency that barriers to entry are low, or in some cases provide evidence that a relevant market was likely to become increasingly competitive in the not too distant future (thereby allowing agencies to clear otherwise worrying merger transactions). However, they rarely featured as merging parties. As small firms they had little turnover, and in any case they were thought to impose little competitive constraint, at least until they had the chance to grow into a larger firm, which in many markets took some time since firms needed to invest in physical infrastructure and significant marginal costs.

3. While competition agencies may have sometimes worried about acquisitions of smaller firms, the concern was more one of gradual acquisition of market share through ‘salami’ slices that eventually added up to a significant acquisition. Raising concerns over the acquisition of start-ups with risky but potentially important innovative products would have been seen as speculative, prone to over-enforcement risk (and judicial challenge), and worse, might have projected an image of the agency as being a roadblock to innovation.

4. However, this all changed in 2018 when research focused on the pharmaceutical industry identified a trend for large incumbents to acquire new nascent firms, and did not adopt and develop the acquired product, as had been assumed, but neglected and discontinued the development of the product. These were labelled ‘killer acquisitions’.

5. The arrival of this research, against a backdrop of growing concerns over increased concentration and rising mark-ups that had been gathering pace since 2015,¹ fuelled the concern that there had been an overly permissive approach to enforcing merger control rules. With many countries having yet to fully emerge from the depression brought on by the 2007-2008 crisis in financial markets, scepticism of market efficiency was high following the selective bailouts of large financial institutions, and commentators were looking for answers to the productivity drought. While the superstar firm hypothesis provided at least part of the answer, the evidence of killer acquisitions, alongside ex-post assessments that pointed towards under-enforcement captured the attention of a wider audience.

6. Since then agencies have begun to pivot towards closer scrutiny of nascent acquisitions. In this paper we begin in section 2 by setting out the relevant theory of harm, we then in section 3, look at whether potentially anticompetitive nascent acquisitions are adequately captured by notification systems and turnover thresholds, and whether sufficient flexibility exists to examine them in case they are not. In section 4, we consider how to investigate such transactions; how the counterfactual is constructed, what evidence and tools are used to identify the competitive constraints, and which efficiencies might need to be examined. We finish in section 5 by looking at the policy response that might be required to address the issues that arise from nascent acquisitions. Section 6 concludes.

2. Definitions and theory of harm

7. Cunningham et al (2018) describe a killer acquisition as a case in which the acquiring firm's strategy is "to discontinue the development of the targets' innovation projects and pre-empt future competition".² As should be clear this is therefore a theory of harm, and not a category of acquisitions, and hence the "killer acquisition" label should not be seen as subjective or prejudicial any more than is the decision to test a theory of "harm". As Cunningham et al explain, the theory is that an incumbent 'kills' or, for more sensitive souls, 'mothballs' the development or production of a product that poses a potential risk to its established product line. Alternatively, it might kill-off its own internal efforts to develop a competing product in order to remove a potential risk to the newly acquired product.

8. Why might the incumbent pursue such a strategy? The uncontroversial theory in the Cunningham et al (2018) model is that the acquiring firm might in some circumstances find it more profitable to buy and shut down a nascent firm's product, rather than:

- suffering the loss of revenue that it expects to occur when a nascent firm's product matures (a competitive counterfactual); or
- buying and continuing to develop or operate the product despite the risk of cannibalising its own sales.

9. Therefore, the defining features of a *killer* acquisition theory is that the concerns are horizontal in nature, and that the outcome is that product development is terminated.³

10. Notably, the concern might be horizontal even if the firm appears at first glance to be producing a complement or an unrelated product. For instance, in a two-sided market the products might be substitutes on one side (e.g. advertising, delivery drivers), but not the other (e.g. social network and picture messaging, or food delivery and parcel delivery). This is an important point, because agencies need to avoid focusing on only one side of the market, e.g. substitutability from the user's point of view. Otherwise, this could lead to a conclusion that many nascent acquisitions appear to be vertical acquisitions of potentially complementary products, missing the fact that many of these might be horizontal under a proper analysis of the multi-sided nature of the markets in which they compete.

11. Similarly, another possibility is that a producer with a complementary product or a product in an adjacent market might be able to use that position to enter into direct competition with the incumbent. In either case, the concern is therefore potential horizontal competition. These should not be confused with conglomerate theories of harm that relate to the prospect that a complement will be bundled or tied to the acquirer's product or service (see OECD, 2020a).

12. In contrast, *nascent* acquisitions constitute a whole category of acquisitions of young firms with products or services whose competitive significance remains highly uncertain. For instance, the nascent target may have not yet hit the market, or they may have recently done so, but have yet to mature. In either case, a static analysis of the market may offer an unreliable indicator of the future.

13. This uncertainty might emerge in cases where:

- there are existing but *minor* overlaps in existing markets, and these overlaps may grow over time (e.g. where a rival platform currently lacks the necessary scale to offer the network effects that would make it a strong rival), or
- those where there are *no* current overlaps, but there are *potential* overlaps in *existing* markets (e.g. future monetisation through advertising), and

- those where there are *no* current overlaps, but there are *potential* overlaps in *future* markets (e.g. in which existing markets might increasingly constrain one another, e.g. smartwatch/smartphone)

14. Within this category of nascent acquisitions, the killer acquisition theory of harm is one that might apply, but it is only one among others. Alternative theories of harm might include vertical theories of harm in which the acquired product *might* grow into a key input that allows input foreclosure in downstream markets (see OECD, 2019a). They might also include conglomerate theories of harm in which the acquired product *might* grow into a complement that might be bundled or tied to the incumbent's product in order to exclude rivals (see OECD, 2020a).

15. Finally, and closely related to the concern in a killer acquisition theory of harm, is the *nascent potential competitor* theory of harm. The concern here is that the acquired product *might* grow into a rival product, and hence that controlling that product (but not killing it), removes the competitive threat that it poses.

16. In this paper, we therefore examine firstly the *killer acquisition* theory of harm, and secondly the closely related *nascent potential competitor* theory of harm. We do not consider theories of harm in mergers of established firms that pose a threat to potential competition (e.g. Dow/Dupont) and which might similarly result in innovation projects being shut down, since these are well covered by OECD, 2018a. Instead, we take the nascent nature of the acquired target and the potential for competition as our starting point.

17. To consider the relationship between these two theories, note that in a killer acquisition theory of harm, it is not only competition that is killed, *but also the product itself*.⁴ In contrast, a potential competition theory of harm is less specific in that it simply requires that the potential competitive threat is removed or 'killed', while the product itself may live on, for example as a non-aggressive product line or an input in the acquirer's product.⁵ To consider the difference by analogy to geographic space, it is the difference between a retail firm buying a store to shut it down, rather than buying a store to remove the independent pricing pressure that it exerts as a close alternative for consumers at its existing store. In either case, the acquirer would need to be confident that a new store would not enter when the competitive tension is reduced (for example that such entry could be deterred by threatening to cut price if entry occurred).

18. Indeed, a killer acquisition strategy might in some circumstances be considered an exclusionary conduct (see US FTC Illumina - Pac Bio, Box 1, which was challenged as both anticompetitive monopolisation and as an anticompetitive merger). For example, it might be seen as an attempt to foreclose entry by overpaying for an input. In this sense it might bear comparison to the allegations of land-banking by supermarkets, a practice through which a plot of land would be purchased in order to prevent it being used by a rival retailer (see UK Groceries market investigation, 2009, and the more recent action by the CMA against Tesco Supermarket, 2020).

Box 1. Pacific Biosciences / Illumina

Illumina, a leading biotechnology firm active in sequencing technology sought to acquire rival Pacific Biosciences (PacBio). Reports suggest that PacBio had a current market share of just 2-3%. On 2 January 2020, the parties announced that they had agreed to terminate their merger agreement, following US and UK opposition.

The US FTC had alleged that Illumina had sought to “*unlawfully maintain its monopoly in the U.S. market for next-generation DNA sequencing (NGS) systems by extinguishing PacBio as a nascent competitive threat*”. In particular, along with claiming under section 7 of the Clayton Act that the deal will eliminate current and future competition between the two companies, the FTC also investigated under section 2 of the Sherman Act, which prohibits attempting to obtain or maintain a monopoly.

The UK CMA considered that the merger would result in a substantial lessening of competition in the supply of NGS systems in the UK.¹ It noted that Illumina had approximately 80% market share of NGS systems worldwide and 90% in the UK.² Through analysis of internal documents and customer feedback, the CMA found that the parties saw each other as a considerable threat, that there was some substitutability between their products and that competition between the parties would increase in the future due to PacBio’s advancements.³ The CMA noted that in the highly concentrated market, other small players in the sector would not exert a competitive constraint on the merged entity.

Notes:

¹ Competition and Markets Authority, Summary of provisional findings, 24 October 2019, https://assets.publishing.service.gov.uk/media/5db1685940f0b609bdf449fc/Summary_of_the_provisional_findings.pdf

² Ibid, para 36, page 8.

³ Ibid, para 38-40, pages 8-9.

19. These two types of nascent acquisition can occur across a range of different markets and sectors but are likely to be most common in areas where firms acquire start-ups for their potential. For example, in pharmaceuticals, in chemicals and in technology markets. Therefore, the focus is on speculative acquisitions. These acquisitions may occur at different stages of a start-up’s life cycle. For example, some might be before a product enters the market (as in pharmaceuticals studied by Cunningham et al (2018), while others might be on the market but yet to monetise, or to reach maturity (as in the case of many acquisitions by digital platforms). For example, Argentesi et al (2020) note that the median age of acquisitions was 6.5 years for Amazon, 2.5 years for Facebook, and 4 years for Google. In either case, what matters is that there is a risk that the existing competitive constraints are not a reliable indicator of those that are likely to apply in future.

3. Are nascent acquisitions being investigated?

20. There has been a significant amount of merger activity involving large firms buying highly valued start-ups in recent years, especially in the technology, pharmaceutical and biotechnology sectors. In the early stages of their development, these targets tend to have low turnover, as their business models may concentrate on creating a large user base, on collecting or analysing significant amounts of data and/or on carrying out research and development before seeking to monetise their services or generate revenue by selling their products. The result is that such acquisitions may not come to the attention of competition authorities that focus upon turnover, despite the potential for them to have anti-competitive effects, either as *killer acquisitions*, or as *nascent potential competitor acquisitions*.

21. In the pharmaceutical sector, for example, Cunningham et al (2018) provide a conservative estimate that almost 6% of all acquisitions of firms with drug projects in development are killer acquisitions. This would amount to approximately 50 killer acquisitions every year. Importantly, out of the mergers analysed in the paper, those whose value was 5% below the US FTC’s turnover threshold were 11.3% more likely to be killer acquisitions than those that were 5% above the threshold.⁶ This suggests that mergers that

resulted in the discontinuation of the development of the targets' innovation projects were less likely to meet the thresholds, and hence less likely to be investigated by the authorities.

Box 2. Pharmaceuticals - Mallinckrodt

Questcor, a subsidiary of Mallinckrodt, was a monopolist in the market for Adrenocorticotrophic Hormone Drugs (ACTH) in the United States. Its drug, Acthar Gel was used to treat a number of medical conditions including infantile spasms.

In 2013, Questcor acquired the development rights of a potential competitor to Acthar Gel, Synacthen Depot, from Novartis International AG of Switzerland. It outbid other potential acquirers of the drug. Synacthen Depot, the synthetic version of ACTH was already approved in other jurisdictions such as Europe but it was not yet marketed in the US. Questcor shut down its development soon after the acquisition.

In 2017, the US Federal Trade Commission (FTC) brought an action against Mallinckrodt under section 5 of the FTC Act and Section 2 of the Sherman Act.¹ It argued that the acquisition “*stifled competition by preventing any other company from using the Synacthen Depot assets to develop a synthetic ACTH drug for the United States, preserving Questcor’s monopoly and allowing it to maintain extremely high prices for Acthar Gel*”.² When Questcor first acquired Acthar from Aventis Pharmaceuticals in 2001, the price of the drug was USD 40 per vial, at the time of the FTC’s complaint the price of Acthar had increased to over USD 34 000 per vial.³

The Federal District Court required Mallinckrodt to sublicense its right to develop Synacthen to another US pharmaceutical company, approved by the FTC, for the treatment of named medical disorders. The company agreed to the settlement payment of USD 100 million.

Notes:

¹ https://www.ftc.gov/system/files/documents/cases/170118mallinckrodt_complaint_public.pdf

² FTC Press Release, 18 January 2017, Mallinckrodt Will Pay \$100 Million to Settle FTC, State Charges It Illegally Maintained its Monopoly of Specialty Drug Used to Treat Infants <https://www.ftc.gov/news-events/press-releases/2017/01/mallinckrodt-will-pay-100-million-settle-ftc-state-charges-it>

³ FTC Complaint, paragraph 2, https://www.ftc.gov/system/files/documents/cases/170118mallinckrodt_complaint_public.pdf

22. Meanwhile in the digital sector, the Furman review (2019) notes that in the last 10 years, Amazon, Apple, Facebook, Google, and Microsoft made around 400 acquisitions globally.⁷ In 2017, for example, the Economist reported that Alphabet (Google), Amazon, Apple, Facebook and Microsoft together spent USD 31.6 billion acquiring start-ups.⁸ Lear conducted an ex-post assessment of merger control decisions by the CMA in digital markets.⁹ It noted that Google, Amazon and Facebook made a combined total of 299 acquisitions between 2008 and 2018. Very few of these mergers received a phase 1 review by the CMA, and even fewer were looked at in detail. Similarly very few were examined by the EU Commission.

23. An increasing number of nascent acquisitions are now also being identified in the medical devices and equipment sector. Most controversially, attention has recently been focused on a 2012 acquisition of Newport Medical Instruments, a producer that had been contracted by the US government to design and produce the ventilators to deal with a future flu pandemic (See Box 3). More recently, however the US FTC has successfully challenged acquisitions of start-ups such as College Park (see Box 4).

Box 3. Ventilators - Newport Medical Instruments / Covidien

A timely example of an alleged killer acquisition is the USD 108 million purchase of Newport Medical Instruments by Covidien in 2012. Here Covidien (turnover USD 12 billion) had an established business line selling ventilators of the type that are used to treat those suffering from the COVID-19 virus as well as previous flu viruses that had not reached pandemic stages: such as SARS, MERS, bird flu and swine flu. H1N1 (Bird flu). Covidien sold its ventilators for approximately USD 10 000 each.

Newport Medical Instruments had been awarded a contract by the US government in 2010 to design and provide new low cost mobile ventilators that the government could stockpile in order to deal with any future pandemic. These were to cost USD 3 000 each and Newport was due to file for market approval in September 2013, with production and delivery of approximately 40 000 ventilators to follow. After having shipped three prototypes in 2011, the government assessed progress in April 2012 and found that Newport were on schedule.

However, in May 2012 Newport Medical Instruments was acquired by Covidien for USD 108 million. In June 2012, Covidien applied for approval but raised the price, the government provided some additional funding but the company reassigned staff following the acquisition and in June 2014, having not provided any ventilators, the company told the government the contract was unprofitable and asked to be released from delivering it. The government therefore started again and awarded a new contract for USD 13.8 million to Phillips who successfully developed new ventilators, which were approved in July 2019 with delivery of 10 000 ventilators due in mid-2020. Sadly, COVID-2019 hit the US in February 2020 leaving the government with just 12 700 ventilators, rather than the 40 000 that Newport were initially due to deliver many years earlier, or the 70 000 ventilators that the government had planned to stockpile to deal with a moderate flu pandemic.¹

Some have argued this was not a Killer acquisition; that the transaction value was low and that there were other competitors in the market.² It is certainly true that, like most of the acquisitions in pharmaceutical markets examined by Cunningham et al (2018), the acquisition was for a relatively low transaction value. In addition, there were a number of other competitors, though these did not sell low priced alternatives to the USD 10 000 per unit price at which Covidien sold its own products. This would suggest that Newport's product would have been something of a maverick within the market.

Most importantly, it has been argued that the portable ventilator that was in development was not a substitute for Covidien's more expensive existing products. Critics point to WHO information sheets that explain that such ventilators "*provide long-term support for patients who do not require complex critical care ventilators.*" However, as noted on the website of Covidien's new owner (Medtronic), portable ventilators can be used in hospital for invasive ventilation.³ Moreover, the WHO explain that "*They can be used for treating patients with conditions like pneumonia or during mass casualty events... and can be used for emergency care.*" This is no surprise, since the US government sponsored their development and agreed to purchase them, specifically in order to be ready for emergencies and mass casualty events such as that which COVID-19 has delivered. The availability of such stockpiles, purchased at such a cheap price would therefore have been invaluable in the present crisis and would evidently have

significantly reduced the huge demand and high prices for access to the more expensive established ventilators produced by Covidien.

It is also argued that there were other rationales for the acquisition that were not anticompetitive. However, there is nothing to stop an acquisition from killing one product while also achieving other goals. An acquisition can therefore still be an anticompetitive killer acquisition, even if it does not kill all the products sold by a firm. More generally, it is argued that, despite being on schedule and receiving FDA approval a month after the merger, the project was in fact an unlikely ‘moonshot’. However, the success of Philips (who the government contracted to replace Newport) in producing a ventilator for approximately the same price, suggests there was little intrinsically unrealistic about the project. Therefore while Covidien may well have preferred to cut its losses on the project, the point is that absent the merger, Newport would have been less likely to choose to do the same, and as a result there would not have been as many patients in US hospitals requiring ventilation but unable to receive it.

Notes:

¹ <https://www.nytimes.com/2020/03/29/business/coronavirus-us-ventilator-shortage.html#click=https://t.co/WsvKW1blf7>

² Manne & Auer (2020)

³ <https://www.medtronic.com/covidien/en-us/products/mechanical-ventilation/newport-ht70-plus-ventilator.html>

Box 4. FTC challenges Ossur/College Park

The FTC imposed conditions on the acquisition of College Park Industries by Össur Hf, two companies that were “*engaged in the development, manufacture, sale, and distribution of upper and lower-limb prosthetic devices*”.¹ In 2018, the annual sales of Ossur were USD 613 million and College Park had sales of USD 22 million and was just two years old. The transaction was not notifiable under the Hart-Scott-Rodino Act but the FTC issued an administrative complaint in relation to the proposed acquisition. The FTC argued that the merger could substantially lessen competition in the US market for myoelectric elbows. The FTC alleged that the market was highly concentrated, with only two rivals, Otto Bock and Fillauer. It explained that College Park was a “*leading supplier in that market*” and that Ossur was working to “*develop its own myoelectric elbow, and absent the proposed acquisition, it would likely compete with College Park for U.S. sales of myoelectric elbows*”.² The Parties signed a consent agreement, which provides for the divestiture of College Park’s assets in relation to its myoelectric elbow business to another prosthetics company. This seeks to maintain future competition between the two products.

Notes:

¹ See, FTC, Analysis of agreement containing consent order to aid public comment, https://www.ftc.gov/system/files/documents/cases/11_ossur_aapc_final.pdf

² See, FTC, Press Release, FTC Imposes conditions on Össur Hf’s Acquisition of College Park Industries, Inc, 7 April 2020, <https://www.ftc.gov/news-events/press-releases/2020/04/ftc-imposes-conditions-ossur-hfs-acquisition-college-park>.

24. Since these nascent acquisitions appear to have, at least until recently, been under-investigated, and not blocked or remedied, it would therefore appear that there has been no over-enforcement against nascent acquisitions. For instance, the Furman review identifies

that “to date, there have been no false positives in mergers involving the major digital platforms, for the simple reason that all of them have been permitted.”¹⁰ Instead, it notes the likelihood of false negatives in mergers involving large digital platforms in recent years.¹¹ Indeed, Lear (2019) suggest that the risk of under-enforcement is not emphasised enough and that it may be particularly detrimental given the relevant market structure.¹² Similarly, a report written by the Stigler Committee on Digital Platforms (the Stigler report) notes that the harm from false negatives is greater in markets that tend towards monopolisation, and that consequently the US threshold for merger review needs to change to transaction value or some other alternative to turnover.¹³

25. Gautier & Lamesch (2020) also look at the question of under-enforcement by examining 175 acquisitions by Google, Amazon, Facebook, Amazon and Microsoft over a three year period). They find that in 105 cases the brand of the target firms was discontinued within a year of the acquisition.

26. Of course, closing the *brand* does not mean the *product* was killed/mothballed. In many cases, the product will have been rebranded. However, discontinuation is also consistent with a killer acquisition strategy. It is therefore surprising that the interpretation of this evidence is that it shows that these mergers should be seen as technology or talent (acqui-hire) acquisitions, and not as killer acquisitions. Indeed, after assuming that any merger that led to a discontinued brand must *not* be a killer acquisition (in direct contradiction of the theory of killer acquisitions), they then suggest that to be a potential competitor requires a sufficiently large existing user base. They therefore assume that any acquisition of a firm with few users cannot be a killer acquisition. Again this contradicts the theory that firms that do not yet, but may in future, compete with the incumbent might be acquired to pre-empt the emergence of that competitive threat. After applying these criteria, the authors suggest that there is just one potential killer acquisition in the sample. However, given the criteria used, it is perhaps more accurate to say that what they actually find is that between 2015 and 2017 there was just one example of an existing (not a potential) competitor being acquired and not subsequently re-branded. However, it is then difficult to know what to conclude from such a finding.

27. In the pharmaceutical sector there is stronger evidence of relevant mergers going under the radar (Cunningham et al, 2018). However, there appears to be little reason to think that such cases would be confined to pharmaceutical markets. For example, one might think that the transparency of the product pipeline might make pharmaceutical firms particularly vulnerable to nascent acquisitions. However, while the need to identify clinical indications in patent applications for pharmaceutical products might increase the visibility of potential targets to acquirers, it also increases visibility for agencies, and hence increases the risk of the transaction being called-in. This might suggest there would be fewer anticompetitive acquisitions in pharmaceuticals than in other markets that rely on entry to drive competition. More generally, industry awareness of growing competitive threats that are in the pipeline will not be confined to pharmaceuticals markets alone.

28. We therefore begin by considering whether the relevant merger notification thresholds have prevented competition authorities from examining mergers that pose a risk. We then ask whether the lack of scrutiny was a prioritisation decision, rather than being the result of a particular notification system. Where a jurisdiction’s merger notification thresholds include turnover, the focus is on whether a transaction value element might be included in the test.

3.1. Thresholds

29. Mandatory notification systems are present in most OECD jurisdictions. The OECD Competition Trends (OECD, 2020e) publication highlights that 44 of 55 surveyed jurisdictions have a mandatory pre-merger notification system, and 52 of these jurisdictions use turnover as the criteria (or as one of the criteria) for establishing merger notification thresholds.¹⁴ However, a number of OECD countries, such as Australia, New Zealand and the United Kingdom have adopted voluntary notification systems.

30. In 2005 the OECD Council adopted the Recommendation on Merger Review which considered Notification and Review Procedures.¹⁵ In relation to notification thresholds, the recommendation states that any criteria used should be clear and objective. The OECD recommendation seeks to avoid creating unnecessary costs and burdens for merging parties where possible. However, it specifies that this should not involve limiting the effectiveness of merger review. To the extent that notification procedures lack the flexibility to examine potentially harmful acquisitions of nascent rivals, as is suggested by the results of Cunningham et al (2018), then this effectiveness would appear to be lacking.

31. Under a mandatory pre-merger notification system, if a transaction does not meet the stipulated turnover thresholds, the authority will typically lack jurisdiction to scrutinise the merger and the parties are free to proceed with the acquisition.¹⁶ The use of a turnover threshold makes sense if significant competitive harm is unlikely in those cases where the merger involves only a relatively small increase in turnover and/or only a small increase in concentration. In that case high turnover could be used to screen for transactions that might create significant harm for consumers.

32. Although some jurisdictions have limited exceptions enabling them to review mergers which fall below the thresholds (see the case referral mechanisms to the EU as described in Box 5), most with mandatory notification systems do not.¹⁷ France, for example, has recently announced that there have been mergers that they would have liked to review but could not as the thresholds for mandatory notification were too high.¹⁸

33. To address such concerns Germany and Austria have recently introduced additional transaction value thresholds. We consider the case for such changes in section 5.3.

Box 5. Merger notification in the EU

The EU provides an example of a mandatory notification system, where jurisdiction is based on turnover thresholds. However, given its role as a supra-national competition agency, the EU threshold has the additional purpose of allocating cases between the Commission and National Competition Authorities. If a merger does not meet the EU thresholds, it does not mean that it will avoid merger control. Instead, it may face merger control in each of the EU's 27 member states. The turnover thresholds are therefore *“designed to govern jurisdiction and not to assess the market position of the parties to the concentration nor the impact of the operation”*.¹ The aim is to provide a simple mechanism that can be easily calculated by the companies involved in the merger in order to determine whether their transaction has a Community dimension and is therefore notifiable.

Alongside the EU turnover thresholds, there is also a referral mechanism. The Commission is able to review a merger, at the request of the parties, if the acquisition is notifiable under the national competition law of at least three member states. National

competition authorities are also able to refer a notified transaction to the Commission under certain conditions.

It has been suggested that the existence of the case referral mechanism provides a degree of flexibility that negates the need for any change to transaction thresholds in the EU. For instance, in 2014 Facebook acquired WhatsApp for USD 19 billion. At the time of the merger, WhatsApp had a low turnover but had over 600 million users worldwide and 50 to 150 million users in the EEA. However, the merger was reviewed by the Commission pursuant to an Article 4(5) referral as the merger was notified to the commission by three Member States.² Similarly, the Apple/Shazam merger, which had been first notified in Austria, was referred to the Commission after a request by several Member States, including Austria, Iceland, Italy, France, Norway, Spain and Sweden.³

In 2016, the EU held a public consultation process on the ‘Evaluation of procedural and jurisdictional aspects of EU merger control’.⁴ It considered “*the possible existence of an enforcement gap concerning acquisitions of highly valued targets with no or limited turnover*”. Most public and private stakeholders did not flag any significant enforcement gap. Nonetheless feedback from some stakeholders did indicate that the ability of the referral mechanism to catch “*high value/low turnover transactions*” would “*depend[s] on the existence of non-turnover based notification thresholds in at least some Member States*”.

Indeed given the need for three referrals it could be important for larger numbers of national competition authorities to adopt thresholds that are not only simple, but also effective in ensuring that potentially anti-competitive mergers are given due attention. It then requires that enough of those national agencies choose to refer notified transactions to the Commission. This suggests there remains the possibility of an enforcement gap at the EU level. Though that this does not mean that the transaction will not be subject to merger control at a national level, if national agencies adopt thresholds that plug the gap. The EU has stated that it continues to monitor whether a change in thresholds is needed.

Notes:

¹ EU Jurisdiction notice, paragraph 127.

² See, European Commission, Case M.7217 – Facebook/WhatsApp, 2014

³ 1 July 2019, Portuguese Competition Authority, Digital Ecosystem, Big Data and Algorithms – Issue Paper, paragraph 170 page 36.

⁴ European Commission, Consultation on Evaluation of procedural and jurisdictional aspects of EU merger control <https://ec.europa.eu/competition/consultations/2016_merger_control/index_en.html>.

34. Other jurisdictions such as the UK, Spain and Portugal have share-based tests that are used in addition to turnover thresholds. In the UK, the Share of Supply Test enables the CMA to review a transaction if the parties to a merger have a share of *supply* exceeding 25% and the transaction would lead to any increase in that share.¹⁹ This can mean that in the case of a nascent acquisition, such as Roche/Spark the test was fulfilled on the basis that the share of employees supplying the particular service in question exceeded 25% (since while the target had little turnover it did have employees). While the share of employees might be very relevant to a monopsony theory of harm, this does demonstrate the flexibility of the test, which can be used to ensure that nascent acquisitions can be reviewed.

35. In jurisdictions that use voluntary notification and flexible share-based tests it is more difficult for firms to self-assess whether notification is necessary or not. However, more flexible systems can offer greater protection to consumers since they can ensure that most potentially anti-competitive acquisition can be investigated.

36. In the US, the Hart-Scott-Rodino Act (HSR Act) specifies thresholds whereby filing is mandatory (size of transaction and size of person thresholds).²⁰ However the US merger regime is flexible since it allows for the investigation and challenge of mergers and acquisitions (whether notified or not) if the transaction would violate the relevant antitrust provisions, namely section 7 of the Clayton Act, Section 5 of the FTC Act and Sections 1 and 2 of the Sherman Act. Therefore, the FTC or DoJ can take action, even if the transaction has already been concluded and even if the transaction does not meet the relevant mandatory notification thresholds.

37. For example, the FTC has recently used its powers to undertake ex-post assessments of past mergers to request information on hundreds of acquisitions made by Google, Apple, Facebook, Amazon and Microsoft over a 10-year period. In doing so, it has noted the possibility that this might lead to ex-post merger enforcement action.²¹ Indeed this follows past cases in which the US has re-examined and remedied completed hospital mergers.²²

38. Another US example is the Bazaarvoice-Power Reviews merger, which was challenged, under the Clayton Act, by the DoJ after consummation.²³ The merger concerned two software firms in the market for product rating and review platforms. This merger was not reviewable under the Hart-Scott-Rodino Act as the transaction did not meet the relevant threshold. The DoJ instead alleged that the merger violated section 7 of the Clayton Act, arguing it would substantially lessen competition in the relevant market and sought to unwind the acquisition.²⁴ The DoJ won the case and Bazaarvoice was required, amongst other things, to divest all assets acquired as part of the Power Reviews acquisition. While PowerReviews was nearly seven years old at the time of the acquisition, the case is notable as the DoJ found that the acquirer had entirely neglected the target since the purchase, and so required Bazaarvoice to help the new buyer (Viewpoints) to rebuild the business, including by providing a licensed copy of its own platform.²⁵

3.2. Agency prioritisation decisions

39. In those agencies that have the necessary flexibility to investigate potentially harmful acquisitions of nascent rivals, which have not yet been notified, the question is instead whether they use that flexibility. That is, do they examine acquisitions of nascent rivals?

40. In Sweden, the competition agency's call-in powers have been used frequently since being introduced in 2008.²⁶ At that time, Sweden increased its notification thresholds substantially, and introduced a provision whereby companies could voluntarily notify transaction below the obligatory notification thresholds and above a second, lower, threshold. The same provision also allowed the competition authority to call for a notification to be made in that lower range. Both options (voluntary notifications or notifications prompted by the authority) have since been used frequently and around 50% of interventions by the competition authority have taken place in this lower range. However, these do not appear to have been used in relation to acquisition of nascent digital firms and it is unclear whether they have been used in relation to nascent acquisitions more generally.

41. In the UK, the CMA has the power to initiate an investigation into a merger that has not been notified under the voluntary regime. While this is sometimes used, see for instance Roche/Spark, the Furman review noted that in the last five years the CMA's Mergers Intelligence Committee considered whether 30 of the 250 acquisitions by Amazon, Apple, Facebook, Google, and Microsoft, should have been called in for review, but determined in each case that they did not warrant closer scrutiny.²⁷ Meanwhile in the US,

as noted the flexibility that is available is sometimes used to call in transactions, in some cases some years later.

42. It would therefore appear that those countries with flexibility to examine high-value/low-turnover acquisitions of nascent firms do sometimes use them, however their use in regard to nascent acquisitions appears to have been rare, at least until recently. This might suggest that the lack of investigations into these types of mergers was not only a matter of agencies being unable to examine the acquisitions, but rather that these types of transaction were until recently generally considered harmless and hence a low priority.

4. How should nascent acquisitions be investigated?

4.1. Relevant counterfactual

43. The first and perhaps biggest challenge in investigating acquisitions of nascent firms will be the formation of an expectation as to what would happen in the absence of the merger (the relevant counterfactual). The framework for considering these issues is in some respects the same as any other merger involving more mature firms. For instance the standard questions in relation to the target will include:²⁸

- Would the target be likely to remain independent, and if so, how strong a competitive constraint would it pose? For example, would it be able to obtain funding from private investors or investment markets?
- Would the target be likely to be purchased, albeit at a lower price, by an alternative acquirer, and if so, how strong a competitive constraint would it pose?

44. Meanwhile the relevant counterfactual for the development of the acquirer's product in the absence the merger, will depend on, for instance:

- the likelihood of disruptive entry by a third party, and
- the likelihood of the acquirer purchasing a different firm (that did not substantially lessen competition), or internally developing (e.g. through hiring) its own capability to produce a version of the nascent firm's product.

4.1.1. The relevant time frame

45. Merger guidelines often do not specify the precise timeframe that is used to assess the impact of a merger, but in practice a period of approximately 2-3 years is used.²⁹ However, while such a timeframe might help to simplify the assessment by making it easier to draw conclusions on the relevant counterfactual during a relative short period, it does not mean that this is the optimal timeframe to be considered for the analysis.

46. The question of timeframe is particularly relevant to acquisitions of nascent firms since in some cases the competitive pressure that is expected in the counterfactual might not *begin* to impact upon consumers until a year or two later. However, in many other cases, the competitive pressure would be expected to draw a competitive response from the incumbent prior to the start-up product acquiring mass scale (perhaps in investment in R&D if not in cutting prices).

47. Furthermore, the innovation that occurs prior to a product reaching market is not without value, and this should be accounted for in the decisions that agencies make. For instance, a drug in an R&D pipeline takes many years to reach market, but if the time to market of a newly developed drug increases from five to eight years, or is cancelled

entirely, that still constitutes a loss of welfare. Perhaps not for today's consumers, but certainly for future consumers. In addition, the creation of knowledge is more immediately affected, and so if we think that knowledge creation has value, either through its availability to others, for instance within a patent application, or more generally, then the delay or loss of that knowledge would be a relevant cost.

48. It is perhaps notable that some of the most controversial nascent merger clearances under discussion are those whose impact (for better or worse) appears to continue many years after they were finalised (six years in the case of WhatsApp, seven in the case of Waze, eight in the case of Instagram, 14 in the case of YouTube). Therefore, an excessively short timeframe may risk understating the competitive harm that can be generated by a nascent acquisition. Indeed, the Lear report for the CMA concludes that two years is too short and recommends that the timeframe be extended.

4.1.2. Heightened uncertainty

49. A particular challenge when investigating an acquisition of a nascent firm is that there is significant uncertainty over the development of the target's product. For instance:

- Will the product prove popular?
- Will the product benefit from access to network effects?
- Will the costs of producing the product fall as the firm obtains economies of scale or takes advantage of learning-by-doing?
- Will the nature of the product change as it develops, bringing it into competition with new rival products?
- Will demand for the product change, bringing it into competition with new rival products?

50. Some will inevitably criticise any attempt to answer these questions as hopelessly speculative, and will argue for pre-cautionary inaction. However, inaction is of course a choice in itself, and one that can only be rationalised as the result of different answers to these speculative questions. Therefore, the questions themselves cannot be avoided if an agency is to fulfil its duties. All that agencies can do is seek to collect the evidence that is available, and answer them as best they can. As such, courts should recognise that the status quo should not be used as a default counterfactual whenever there is little evidence to go on, rather they should focus on instances where they consider that the sparse evidence has been erroneously weighed by agencies.

51. This is not to suggest that the questions over the counterfactual are not difficult questions to answer. Indeed, given the multiple dimensions of uncertainty in the case of an acquisition of a nascent firm, the formation of an expectation certainly becomes more difficult than in cases of acquisitions of established products, with a history of competitive interactions within a market. For example, the combination of possible responses to the questions set out above quickly proliferate, creating numerous potential states of the world. Moreover the larger the number of reasonably realistic possible states of the world, the less probability can be attached to any single one of them. This is certainly inconvenient, but again unavoidable.

52. Faced then with this uncertainty, agencies can, like consumers with behavioural biases, use heuristics to deal with the problem. For instance, they can select the best-case or worst-case scenario (from different perspectives); or they can select the most likely scenario and then convince themselves to place greater certainty in that state of the world (reinforcement bias). However, simply accepting such biases creates scope for predictable

mistakes, for instance towards inaction whenever the prospects of a new product are uncertain.

53. Ideally, however they would aspire to a rational-agent approach to such decision-making. Which in this case, would mean identifying the impact that the merger would have in different states of the world, and then multiplying those by their best estimate of the probability of those different states of the world (see Box 6). This would allow the adoption of a complex/composite counterfactual as *the* relevant counterfactual against which to compare the impact of the merger. This is of course not straightforward, but just as a consumer evaluates the likely value of more than two products of uncertain quality, so competition agencies will sometimes need to weigh their understanding of the impact of the merger against multiple uncertain scenarios.

Box 6. Stylized example of counterfactual probabilities

To illustrate let us think of changes in demand and cost of the product as translating into two possible levels of success: market power, or little market power (the alternative being no success). We might then identify five possible states of the world that might occur absent the merger:

1. Independent growth of the nascent firm into an oligopolist with market power
2. Independent growth of the nascent firm into an oligopolist with little market power
3. Inability of the nascent firm to remain independent leading to acquisition by another firm resulting in growth into an oligopolist with market power
4. Inability of the nascent firm to remain independent leading to acquisition by another firm resulting in mild growth into an oligopolist with little market power
5. Exit of the nascent firm following failure as an independent and no acquisition by an alternative

To the extent that there is also uncertainty over the market in which the future products compete, then there might be variations on each of the above (for instance a product might have few substitutes within its origin market, but minor or heavily constrained in its new market).

Nevertheless, in this highly stylized example we might conceive of three interesting scenarios or sets of evidence:

- Firstly, one set of evidence might lead to a conclusion that minor success via an alternative acquisition (option D) is most likely at approximately 40%, while exit (option E) is 30% likely, and minor success as an independent (option B) is around 30% likely.
- Second, a different set of evidence might lead to a conclusion that the probability of exit (option E) is 40%, with acquisition (option C or D) more likely (60%). However, the likelihood of the alternative acquisition leading to significant market power (option C) is around 30% while the prospect that it leads to a smaller role is around 30% (options D).
- Thirdly, another set of evidence might lead to exit (option E) being 70% likely, while the target's growth into a significant competitive threat (option A or C) is 30% likely.

In the first case, agencies might conclude that the product is likely to be successful, but that they are not clear whether it will do so independently or via acquisition by an alternative firm. They may therefore not consider that the difference between those scenarios will make a significant difference to their conclusions.

In both the second and third cases agencies might select option E as the relevant counterfactual on the basis that it is the most likely of the different counterfactuals considered. In both cases this might, depending on the magnitude of the lost competitive constraint, prove to be a mistake that is made systematically over and over again.

54. Assigning probabilities to counterfactuals is always challenging for decision-makers. This is true in circumstances that are familiar to decision-makers, for instance counterfactual analysis which involves distinguishing between 60/40 situations (more likely than not), and 50/50 situations (equally likely). It would be equally true in cases where decision-makers distinguish between lower probabilities in the 10-20-30-40% range. Instead, the additional difficulty that arises when there are multiple credible counterfactuals is not assessing the probabilities, but the fact that agencies will need to attach an approximate value to the estimated harm under each counterfactual. Acknowledging uncertainty would therefore impose a need for greater transparency on the central estimate of harm in an assessment.

4.1.3. Counterfactual volumes

55. There are a number of potential issues to be aware of when identifying the relevant counterfactual. First and foremost, the relevant question when analysing the competitive effects of the acquisition is the strength of the competitive threat that the target would have posed, in the absence of the acquisition. It is not whether the target would have enjoyed more or less growth with and without the merger.

56. If an agency were to expect on the basis of the evidence before it that as an independent firm, the target would have been successful in producing a highly substitutable product, then we might indeed expect that the acquisition's competitive impact would be considerable. However, agencies will also recognise that smaller innovative 'maverick' firms can have a similar or even greater competitive impact. In any case, whether the agency thinks that a nascent firm's success would have been greater, or less, than the success that the firm would have found as a result of the merger is not relevant to the assessment of competitive effects.

57. This is because even a large and successful sub-division of the same firm would pose no competitive constraint, while a smaller independent or third-party owned rival will do. As we discuss in section 4.3, an improvement in the target's growth prospects might in some cases be relevant evidence of pro-competitive efficiencies, but this will depend on the way in which the merger is expected to deliver that 'additional' success.

58. What this means is that whilst for example, Instagram's growth is not in itself evidence that its acquisition by Facebook was harmful, it certainly does trigger serious questions about the basis for the counterfactual in the merger assessment that was conducted at the time (see Box 7). For instance, Tim Wu (2019)³⁰ has highlighted the interest from Twitter in acquiring Instagram at the time. Here Yun (2019) argues that agencies need to be wary of adopting 'nirvana' counterfactuals, and so evidence that demonstrates the realistic nature of a more competitive counterfactual, such as that which Wu provides in this example, is particularly helpful. However, it is equally fallacious to adopt 'dystopian' or status-quo counterfactuals that simply disregard contemporaneous

evidence on potential acquirers and third party investors' views on the prospects of the target.

59. Secondly, the strength of the competitive constraint that the target poses is not, in itself, sufficient to draw conclusions on the impact of the merger. This is because the counterfactual will become just one component of the competitive assessment. For example, the conclusion to be drawn from a counterfactual in which the target was expected to become a minor market player will only become clear when combined with the assessment of the existing market power of the incumbent, the counterfactual on the prospects of third party entry, and the competitive assessment on the substitutability between those products.

60. It may therefore be the case that the loss of a prospective minor market player with a substitutable product constitutes a substantial loss of competition. For example, the incumbent might be found to be dominant and entry to be unlikely. In such circumstances, the loss of even a small constraint might be disproportionately harmful for consumers. Alternatively, the loss of a prospective minor market player might be insignificant if the acquirer faces existing competition and the prospect of further entry (as in Roche/Spark).

Box 7. Facebook/Instagram Merger

In 2012, Facebook acquired Instagram for USD 715 million. At the time of the merger, competition authorities who analysed the transaction considered Facebook was considered a social network service provider and Instagram a photo-sharing app, and did not consider that the platforms were in the same market. Questions have since been raised over the analysis.

The ACCC Digital Platform Inquiry (ACCC Inquiry) explains, “*in acquiring Instagram, Facebook eliminated a potential competitor*”.¹ The report notes that post-acquisition, Instagram became “*a broader social media platform, with the ability for users to share information and photos, to message other users, and to now sell advertising inventory*”.² The ACCC Inquiry argues that at the time of the merger, Instagram could have been perceived as having “*at least the potential to develop into an effective competitor*”.³ It states that “*Even at the time of the acquisition, Instagram was, like Facebook, a platform facilitating the development of social networks of users, and it attracted consumer attention that was ripe for monetising with advertising*”.⁴ It however notes the arguments put forward by Facebook in its submission to the Inquiry, notably that such arguments are speculative and influenced by the fact that Instagram is now a successful product and identifies the difficulty of the counterfactual in the digital environment.⁵

The UK Office of Fair Trading (OFT) cleared the merger at Stage 1 of the merger review process.⁶ It considered the theory of harm that Instagram could become a social network provider but it did not consider that Instagram would be able to monetise its services. The Lear Report to the CMA identified a number of issues in the OFT's analysis. It found that the authority underestimated the advertising potential of the app, and may have placed excessive weight on the functionality offered by the parties' products. It concluded that Facebook/Instagram may have represented a missed opportunity for the emergence of a challenger to Facebook, though it had also likely resulted in efficiencies.⁷

Notes:

¹ See ACCC Digital Platforms Inquiry, page 80, 2.4.4 Facebook's strategic acquisitions: <https://www.accc.gov.au/system/files/Digital%20platforms%20inquiry%20-%20final%20report.pdf>

² Ibid.

³ Ibid.⁴ Ibid.⁵ Ibid. In relation to the arguments put forward by Facebook, the ACCC Inquiry cites the Submission made by Facebook: Facebook, Submission to the ACCC Digital Platforms Inquiry Preliminary Report, March 2019, p. 46.⁶ The OFT was one of the CMA's predecessor organisations. See case page for the Facebook/Instagram merger: <https://www.gov.uk/cma-cases/facebook-instagram-inc>⁷ Lear Report. Also see Furman review, paragraph 3.85, page 98.

4.1.4. Evidence gathering

61. In order to identify the probability of a nascent target maturing into a competitor in the absence of the merger, a good place to start is with the rationale for the transaction.

62. For example, what does the acquirer see in the target, to what extent are these strengths freestanding, and to what extent are there synergies that depend on combining the target's product with another product or input? Competition agencies will need to test whether the characteristic of the fit between the acquirer and the target's products is specific to the acquisition in question, and if not how rare these characteristics are. That is, how many other firms might see the opportunity for the same synergies, or might otherwise be interested in acquiring the product in the absence of the merger (perhaps at a lower price).

63. Evidence may then be gathered from these potential alternative acquirers. This would again look at their view on the strengths of the target, the nature of the risks they see to the transaction, and the target's prospects as a standalone business. Where rivals are not interested in acquiring, it may be useful to understand why this is so, and the extent to which it reflects the prospects of the product itself, or other factors, e.g. related to the acquirer's strategy (e.g. they may believe that the product will grow into an important competitive threat, but not consider growth through acquisition to be a priority at that moment).

64. The target, though small, may also have useful information in internal documents, for example, any work towards a potential initial public offering or other documents prepared for potential investors. Depending on the context in which they were produced, these may tend towards being overly optimistic or pessimistic. However, they may nevertheless contain useful information, for example on likely monetisation avenues on both sides of multi-sided markets. It may also be possible to test and verify the reality of individual assumptions used in such documents against those used by independent third parties.

65. Agencies will want to focus on contemporaneous documents, rather than those that justify ex post decisions that have, in effect, already been taken. They will test the credibility of internal documents as both the merger parties and their rivals may have ulterior motives. For example, they may interview the document authors and seek to understand the context and audience for which the document was produced.

66. Views from neutral parties are particularly valuable. For example, existing customers, and the trade press may have useful information on anticipated developments. Such views, including those from market analysts on the prospects of the target as a standalone firm, and as an acquisition target for others, may therefore be useful.

67. It is notable that a recent trend has emerged towards agencies building in-house expertise in new areas that help them understand the nature of certain markets, for example through digital or data science units (see the ACCC and the CMA). This is one possible approach to the challenge of obtaining neutral evidence on the prospects of a nascent firm.

However, it is not clear at this stage whether valuation of target companies with little existing turnover is a sufficiently precise discipline to merit such an approach. Rather, it may be more sensible to rely on efforts to consult with, to understand and to measure market views on the prospects of the target.

68. It is also necessary to guard against convenience bias in decision-making, in particular the tendency that agencies might have to accept overly optimistic stories on potential entry by third parties that allow them to clear a merger and hence reduce the risk of appeal. For example, in the UK the report that the CMA commissioned from KPMG identified through ex-post review that in four out of eight reviewed cases, an entry event that was relied upon to clear a merger did not occur as expected.³¹ While this may simply be an understandable optimism bias, as the CMA suggest, it is perhaps worrying that a similar optimism is not credited to the prospects of successful entry by one of the merging firms. Indeed, the lack of challenges to nascent acquisitions, and the quick clearance of those that were examined, as detailed by the CMA's Lear report, suggest a pessimism bias with regards to the prospects of the target's entry. This suggests there is a risk of applying a double-standard on the likely success of entry which would tend to result in under-enforcement.

69. One approach to addressing this risk is to ensure consistency in potential entry assessment by designing an anonymised assessment (or cross-check) in which anonymised evidence is assessed by decision-makers who are unaware whether it pertains to potential entry by a merging party (and hence a potential overlap), or potential entry by a third party who might mitigate competitive concerns that exist.

4.1.5. Accounting for the kill zone

70. Relevant to the prospects of a nascent firm, being acquired or surviving and thriving as an independent firm, are the risks that it may face in what is described by Zingales and others as the 'kill zone'. This is the product space in which a dominant platform is able to; a) use the information it receives as a platform operator to copy and itself reproduce low cost copies of the best-performing products on its platform, and then, b) guide consumers away from the original product (for instance through self-preferencing in the rankings of search results on its platform).

71. Here the move from the platform to copy popular products can be seen as a broadly welcome competitive response to innovation (the incentive for which is usually preserved through the award of intellectual property rights, after which such 'genericisation' is positively encouraged). However, the ability of some platforms to then also use the market power that it might hold to distort competition between its own copy of the product and the original product could be a concern. In particular, if its market power as a platform is such that it faces little pressure to cultivate an innovative and diverse ecosystem of complementary products that are sold on the platform, then it may guide consumers towards its own-brand, regardless of the impact on the value of the platform as a whole. This hold-up problem can be expected to reduce the incentive for small firms to innovate or invest in obtaining efficiencies.

72. This risk and the potential need for remedies or ex-ante regulation is discussed in greater detail by OECD (2020b). Here it is only relevant to the extent that if there are downside risks to the prospects of the target's product that emanate from the risk of such anticompetitive behaviour, then these should be discounted when forming an expectation of the likely counterfactual. This means the prospect of an alternative acquisition needs to be considered under the proviso that the potential acquirers do not fear the consequences of the platform abusing its dominance at a later date. For example, as noted in the UK merger guidelines, a counterfactual cannot involve a violation of competition law, for

example, a cartel.³² Such a qualification may therefore be important to clarify with those providing evidence to the merger inquiry.

73. In addition, the agency may also need to consider potential investors' views of whether the acquirer, having been rebuffed in the event that the merger was blocked, might discriminate against the target. For example, they might expect such discrimination, not because it made short-term economic sense to do so, but in order to illustrate a point to the agency and the government (and other governments). An apparently irrational move may therefore make economic sense in the longer term (by achieving a lighter touch approach to future acquisitions). Again, the risk that such 'predatory rent-seeking' will diminish the prospects of the product (or its acquisition) should be explicitly discounted by agencies in the process of gathering evidence from potential investors. Failure to do so may simply encourage acquirers to engage in retaliatory strategies. Agencies may therefore wish to signal that they would consider prioritising the investigation of, and taking interim measures against such retaliatory actions.

4.2. Competitive assessment

4.2.1. Framework for assessment of nascent acquisitions

74. The framework for examining the unilateral effects of a nascent acquisition is not radically different from any other horizontal merger. As per usual, what matters is the impact on the merged entity's incentive and ability to raise prices, or to reduce quality or innovation. This means focusing on the current and future substitutability of the existing products, and the substitutability of future products, on both sides of the market if the product is a multi-sided platform.

75. To do so agencies need to understand the substitutability of existing products in the current market in order to understand the degree of market power that the acquirer currently holds. This will then need to be combined with the counterfactual evidence on the likelihood of future third party entry (see section 4.1). The counterfactual evidence on the likely development path and growth of the target's product can then be introduced. This allows a view to be taken on the likely future competitive constraints that the target imposes upon the acquirer's product (and vice-versa) under potentially multiple states of the world (e.g. in the event that the start-up became hugely successful, or somewhat successful, or failed entirely). These constraints will, as usual, be driven by the degree of substitutability between these future products.³³

76. Identifying this substitutability between potential future products might be relatively straightforward to understand in some cases. For example, in pharmaceutical products given the clear clinical indications for such products. As ever though, it is vital that this substitutability is examined on all sides of the market and for all products sold. Therefore, products that may appear complementary for users, or unrelated, might in fact be close substitutes for those on the other side of the market, for example, those that buy data or advertising. These concerns on the future substitutability and competitive constraints between products constitute potential horizontal competition concerns, and so should not be confused with conglomerate effects.

77. As noted in section 2, nascent acquisitions of consumption complements that give rise to conglomerate effects are also conceivable, and may need to be investigated in parallel to potential competition theories of harm (including killer acquisitions). See OECD (2020a) for a more detailed discussion of conglomerate theories of harm and their investigation.

78. Finally as usual, particular attention should be paid, firstly to the acquisition of potential maverick or disruptive competitors (US Horizontal Merger Guidelines, section 2.1.5, 2010). Similarly, as the Furman review recommends,³⁴ the substantiality of any reduction in competitive constraints should be measured in relation to the existing degree of competition in those markets. Therefore, reductions in competition in already uncompetitive markets should be weighed heavily.

79. It is also worth reminding ourselves that the framework for the unilateral effects analysis set out above should also be applied equally on the purchasing side of the market, in particular in relation to whether the merger creates or strengthens a position of monopsony market power (see OECD, 2020d). This might be in terms of the immediate impact on workers at the target, or on the potential future constraint that a rival future employer might pose. It is notable for example that in its ex-post request for information on acquisitions by Google, Apple, Facebook, Amazon and Microsoft, the US FTC has specified that it wants the firms to hand over information on employment clauses implemented as part of the acquisitions. This perhaps reflects the fact that while agencies might expect highly skilled staff in technology start-ups to have more employment options than most workers, they have been found to be the target of anticompetitive non-compete agreements between firms in precisely the same way that less skilled workers such as nurses have.

80. Note that market definition is not included in this framework. While market shares are often only weakly correlated with the degree of substitutability between differentiated products, in the case of acquisitions of nascent rivals they are likely to be particularly misleading. This is because a necessary condition for the theory of harm in such cases is that the existing competitive constraints are unlikely to represent the expected future constraints. If they were instead to be representative, then the theory of harm would not hold. Hence examining them is not helpful in substantiating or disproving the theory of harm.

4.2.2. Evidence for assessing whether a nascent acquisition is anticompetitive

81. Since the first step in the assessment framework set out above is to understand the substitutability of the existing products in the current market, agencies should be able to use the standard tools that they use to analyse markets that are believed to be approximately in equilibrium. For example, diversion ratios from surveys, event studies, bidding data, and price correlation analysis, as well as credible and contemporaneous qualitative evidence from third parties.

82. The competitive assessment therefore needs to take: a) the information on the prospects of third party entry absent the merger, and b) the evidence on the likely development path and growth of the target's product and the acquirer's product, and to use these to gather evidence on the competitive constraints that the target's product would impose on the acquirer's product, and vice versa. These constraints will be driven, as usual, by the degree of substitutability between these products.

83. Evidence on substitutability between future products cannot rely of course on analysis of historic data, since such data either does not exist, or is expected to provide an unreliable indication of future substitutability. Historic data would only be reliable if the expectation is that the target's product has no future outside the proposed merger, in which case further competitive assessment of a nascent acquisition would be unnecessary.

84. Agencies will therefore look to gather qualitative evidence on future substitutability. As with the evidence on the prospects of the target's product and of third party entry, which were discussed in section 4.1.4, internal documents will be important.

Particularly those that shed light on what executives think, what their worries are over the risk of future sales losses, and whether they have concerns over the threat posed by a specific product. These might include statements or presentations to investors, risk assessments, internal emails, board minutes, quarterly reports and business cases. Questionnaires may be used to collect this evidence, however the most valuable documents will be those that are contemporaneous and whose credibility can be evidenced. Agencies will recognise however that careful acquirers may leave important views unstated in written documents. It may therefore be that, as Lear (2019) suggest, dawn raids and seizure of email and messaging content, have a useful role to play in gathering evidence on such cases. Such exercises come at a cost however, and so would might be used judiciously or randomly in order to deter non-disclosure. The absence of post-merger plans relating to a rival product line may in itself be revealing.

85. Internal documents from the target, from rivals, from industrial customers and from neutral third parties may all help to provide insight on the anticipated closeness of future competition. Where proportionate, customer surveys might also be used to understand the degree of substitutability between what might still be hypothetical products.³⁵ For instance, to understand what price point and what aspects of quality a product would need in order to provide a competitive constraint. This can then narrow the question to whether the nascent firm will be able to reach a certain price or to provide a certain level of quality.

86. In addition to these qualitative tools, an emerging quantitative approach is to undertake analysis to breakdown the components of the price that the acquirer has offered to pay for the target. This is not straightforward, and does not appear to be an approach that has been used in investigations of mergers of more mature firms. However profitability analysis undertaken by competition agency accountants is not uncommon in market studies (and is a standard part of the UK's approach to market investigations). Such analysis seeks to understand the degree to which firms are earning uncompetitive profits, by adjusting the observed profit to reflect all factors that would explain a competitive profit level. What remains unexplained is then identified as excessive profit.³⁶

87. Competition authorities could use an adjusted methodology for assessing nascent acquisitions by focussing not on the components of existing profit, but instead on the components that make up the valuation behind the bidding price. This could help to understand whether the price includes an unexplained premium that might reflect the value to the incumbent from the reduction in future competition. Alternatively, the analysis might identify that value has been assigned to non-existent synergies in order to cover for value that reflects a reduction in future competition.

88. Such analysis is of course difficult because an acquirer might also be willing to pay a premium to obtain real synergies that are specific to its acquisition of the target (and would not be available to a rival acquirer), or simply because the target has a strong bargaining position (e.g. exclusive IP, reliable funding), or good bargaining skills.

89. An example of this valuation analysis is set out by CRA (2019) in a memo describing their work on the acquisition of iZettle by Paypal (see Box 8).³⁷ They suggest that when valuing start-ups, firms typically use either a comparator analysis or a discounted cash flow analysis (DCF) to assess the profitability and hence, the bid price. Other methodologies include the Berkus method (Dave Berkus), scorecard valuation (Bill Payne), the Venture Capital method (popularised by Bill Sahlman), Risk Factor summation, Asset-Based Valuation, cost-to-duplicate, or a combination of some or all of the above (Richards, 2020).³⁸

90. For example in assessing a merger where a contemporaneous DCF analysis has been conducted by the acquirer or the target, a valuation analysis might firstly explore

whether the price paid exceeds the discounted cash flow value of the target to the acquirer. This would suggest a premium had been paid that could not be attributed to synergies or bargaining ability.

91. More likely however, the price paid will be at, or less than, the DCF valuation of the target to the acquirer. In that case, the agency might want to look closely at the assumptions used in the valuation model. This is because an excessively low discount factor might artificially inflate the valuation, and potentially provide cover for additional value that is created by the diminishing of competition. It might also explore the basis for the cash flow expectations in order to see whether higher prices or less investment in quality or innovation are driving a higher cash flow. The basis for expecting to increase prices or reduce investment would themselves be of interest. Moreover, even if such estimates are baseless and not driven by competitive analysis, they may nevertheless provide cover for value that is expected to be derived from a loss of competition.

92. Indeed, it is worth trying to understand whether and why the acquirer makes any significant changes to the target's expectations regarding revenue projections or investment expenditure. This might, for instance imply a change of strategy post-merger, though it might also simply reflect a more realistic perspective.

93. Next, the agency might turn to the synergies. It might try to test the nature of those synergies to ensure that they are not a cover story for anticipated anticompetitive effects. Furthermore, if the actual price paid is higher than the estimated standalone value then the acquirer is, in effect, paying the target out of the synergies that it expects to achieve. The agency will in such circumstances want to understand why the acquirer has agreed to pay this premium to the target. For instance the lack of alternative targets (or any in-house alternative) might explain it, as might the existence of alternative acquirers who bid up the price.

94. Another line of inquiry, might be to compare the valuation analysis of the acquirer with the valuation analysis of other bidders as well as the target, which might have undertaken such analysis in considering a planned IPO price. By comparing the assumptions made in these different analyses, it could become clear whether a premium is paid by the acquirer. Paying a large premium can, as CRA notes, be consistent with a sharing of monopoly rents, though it can also be consistent with synergies that are specific to this acquisition and which would not be available from another acquisition.

95. If a comparator analysis has been undertaken, assumptions are generally less explicit. Nevertheless, there may be insight in investigating the rationale for the specific comparator that has been selected, and an analysis of specific characteristics of the comparator that might not compare so well with the target in question. These aspects of the comparator analysis might therefore be examined and sense-checked with a view to considering whether there is an expected anticompetitive effect hidden in the valuation.

Box 8. PayPal/iZettle

On 20 September 2018, PayPal acquired iZettle. Both firms were in the market for the supply of mobile points of sale (mPOS). On 26 November 2018, the CMA decided to review the merger, under section 22(1) of the Enterprise Act. The CMA was concerned that the acquisition might reduce competition in the market for mPOS devices in the UK. No remedial undertakings were offered by the parties in Phase 1 and it decided to conduct an in-depth (phase 2) investigation and ultimately cleared the merger.

Both PayPal and iZettle offered mPOS services, which “*consist of a card reader that is connected, physically or by Bluetooth, to an app downloaded onto a smartphone or tablet. This enables merchants to accept card payments*”¹ as well as ‘omni-channel’ payment services, which in turn enable businesses to receive online and offline payments via a single provider.

The CMA analysed how competition between the PayPal and iZettle would have likely evolved and the likely commercial strategies of the parties had the merger not occurred. It considered PayPal’s motivation for the acquisition as well as customers’ perception of ‘more novel mPOS devices, and ‘traditional’ point of sale devices’.²

The CMA found that the parties were two of the main suppliers of mPOS devices but that there was willingness to switch between the novel and traditional devices. Further, the CMA found that the merged company would be constrained by other significant competitors. In relation to the development and eventual supply of omni-channel services, the CMA found that iZettle “*would only have been able to develop its offering slowly and would have remained a marginal player for the foreseeable future*”.³

Notes:

¹ Page 4, Paragraph 4 of the final report:

https://assets.publishing.service.gov.uk/media/5cffa74440f0b609601d0ffc/PP_iZ_final_report.pdf.

² CMA, Press Release: CMA clears PayPal / iZettle deal, 12 June 2019,

<https://www.gov.uk/government/news/cma-clears-paypal-izettle-deal>.

³ Ibid.

4.2.3. Framework for assessment of killer acquisitions

96. Recall that the difference between a killer acquisition theory of harm and a potential competition theory of harm is that in a killer acquisition the merger creates an incentive, not only to remove the future competitive pressure applied by the product (which can be done by acquiring the product), but *also* to remove the product itself from the market. Again, it is the difference between a retail firm that buys a rival store and shuts it down, rather than buying a store to remove the independent pricing pressure that it exerts on its existing store. While a loss of competitive pressure can be expected to result in a deterioration of the offer, closing the product may, in addition to that deterioration, also reduce choice and variety.

97. The circumstances that favour a ‘killer’ strategy rather than a ‘de-fusing’ strategy are therefore that, in addition to the necessary conditions for a loss of potential competition: a) there are also large efficiency gains from de-duplicating the potential provision of two products, or a large differential in efficiency between the two products; *and*, b) that the products are, or would likely become, very close competitors.

98. The first aspect is required because where variable costs are comparable, and duplicated costs small, the absence of cost savings from closing down a product or store will make the acquirer largely indifferent as to whether it attracts consumers through one product or the other.

99. The second aspect is required because if they are potentially close competitors and there is significant product loyalty, then the firm is likely to be less confident of retaining the user base if it shuts down that product. This is likely to lead it to maintain the target’s product in order to retain those users that are loyal to it, and to reach out to new users that are less attracted by their existing product. Again, to use the geographic retail analogy, these would be consumers that are more distant from the firm’s existing store, and hence might divert elsewhere and away from the acquirer in the event that their local store is

closed. It may therefore be the case, for example, that Facebook's acquisition of WhatsApp and Instagram would each have failed this aspect of the test, to the extent that they had a loyal user base that made it uneconomic for Facebook to kill or discontinue them.

100. Of course, even if both these conditions are fulfilled there will still be uncertainty as to whether the acquirer will ultimately shut down the acquired product (or its own version). Moreover, in some jurisdictions, even the study of the question may discourage it from doing so, for fear of ex-post investigation. However, this uncertainty need not be a problem for agencies since if the evidence is sufficient to identify a loss of potential competition then the bar for consumer harm is passed, whether or not the acquisition is expected to lead to a shutdown, or simply to a loss of competition.

101. However, the prospect of the product being shutdown might be considered to be more harmful than a loss of competition between two products that remain available to consumers. For example, consumers would face a smaller choice or range of options (range being a competitive lever in some markets). If so, then all else being equal the expected harm from a killer acquisition might be greater than from a simple anti-competitive nascent acquisition.

102. A second framework may also be relevant to suspected killer acquisitions. This would examine the acquisition not as a merger, but as a potentially unlawful maintaining of monopoly power (in a US context), or as an abuse of dominance offence in a European context.

103. For example, the Illumina/PacBio merger (Box 1) was recently challenged by the US FTC on precisely these terms. While the assessed evidence might not differ substantively between assessing the case as a merger case or as a monopolisation or abuse of dominance case, the implications of the different legal framework may nonetheless be significant.

104. For example, as a monopolisation or abuse of dominance offence, an ex-post challenge (not a policy evaluation) would be common, and entirely uncontroversial, rather than a rarity (as it is in merger investigations). Similarly, if liability were identified, then large fines, follow-on actions, and far-reaching remedies would be expected to follow (rather than a simple divestment or at most a prohibition of the merger).

4.2.4. Evidence for assessing whether an anticompetitive nascent acquisition is also a killer acquisition

105. To test whether an acquisition is likely to go beyond being an anticompetitive acquisition of a nascent rival, and turn into a killer acquisition, agencies will want to look at the issue both in terms of intent, and in terms of factors that affect the incentive to implement such a strategy.³⁹

106. In regards to intent, agencies will gather evidence on contemporaneous internal documents that explain whether the acquirer has a plan to shut down a product. They may also look at whether investment plans include the type of sunk investments in the product that would take time to pay off and hence signal that the product is expected to be pursued. However, while these documents would certainly help, a well-organised killer acquisition would be unlikely to leave such a smoking gun for agencies to find.

107. Agencies might therefore wish to encourage whistle-blowers with knowledge and evidence of an anticompetitive rationale, most likely employees of either the target or the acquirer, to come forward. Incentive mechanisms for whistle-blowers might be necessary in order to overcome the risk of dismissal to which they expose themselves. Such whistle-

blower mechanisms would however make more sense if the case was also being investigated as an abuse of dominance, and not only as a merger review.

108. The agency may also look at the strength of the incentives to go beyond a de-fusing strategy. This would include quantifying the savings from reducing duplication, or from switching production into the more efficiently produced product. It would also include calculating diversion ratios in the event of a product closure, and using a critical loss framework to estimate the profitability of a shut down.

109. However, before doing so, an agency is likely to reflect on its priorities, and in particular, whether it is a good use of resources to investigate the likelihood of an acquisition being a killer acquisition, rather than simply an anticompetitive acquisition. This will depend on the specifics of the case and the strength of the evidence uncovered.

4.3. Assessment of efficiencies

110. Acquisition of a nascent firm can offer scope for efficiencies in a number of different ways. In particular, the product may become an important input or a valuable complement to an incumbent's existing products. However, when upon investigating it becomes clear that the acquired product is a potential rival and substitute to the existing product, then the scope for efficiencies narrows. Nevertheless, it is worthwhile considering at least two ways in which the acquisition might lead to pro-competitive efficiencies. The first is that acquisition may increase the probability or speed that an innovative product reaches the market. The second is that the prospect of acquisition by an incumbent incentivises investment that ultimately benefits consumers.

4.3.1. Efficiencies in development

111. A nascent firm certainly has a strong incentive to develop its products as quickly and in the best way that it possibly can. For example, in the case of a pharmaceutical product, this might mean investing in discovering and gaining approval for as many indications as possible and reaching the market as quickly as possible. However, it may lack the same ability to develop the product as quickly or as effectively as larger rivals might have. For example, larger firms might have greater experience and expertise at later stages of the innovation pipeline. Again, to take the pharmaceutical example this might involve a larger firm being better equipped to pilot an innovation through later drug-trial stages.

112. It might also be the case that investment markets are not always as competitive as is sometimes assumed. In that case, a larger firm might also have the advantage of having better access to funding to enable the firm to bring the product to market. However, having a greater capability, but less incentive to invest in bringing a product to market (e.g. due to a reduction in competition), leads to ambiguous predictions on whether the net result will be beneficial.

113. Where the relevant counterfactual involves acquisition by an alternative firm, it will also be necessary to recognise differences both in organisational capability and in the fit between the product and the knowledge and skillset of different buyers. However, this should not be taken to mean that only incumbents would make a good fit as an acquirer of a potential rival start-up. Instead it would be important to consider what capabilities the start-up might need in order to develop, and whether an alternative buyer might have those characteristics, or be able to acquire them, for instance by hiring experienced workers.

114. What should be clear however is that an acquisition that takes an innovation that a start-up has already offered, or would be expected to offer to the market, and offers that

innovation to a large installed base of consumers, is not a net benefit to consumers. Firstly, in some cases the acquirer might have purchased a licence to use the target's innovation and resold it as part of its product, or simply made its product interoperable with the product in question. Secondly, in other cases consumers were able to purchase the target's product just as quickly without the acquisition (e.g. download speed does not change when a target is acquired, rather its volumes might increase through 'free' advertising). Therefore while genuine acceleration in speed-to-market is a potential efficiency, increased product sales on the market as a result of advertising that appears to be 'free', would not be.

115. A first example of this increase in product sales is providing interoperability with the acquired product, as Facebook did with Instagram, (at the same time as withdrawing interoperability of each product with Twitter). This move was not necessarily anti-competitive, since, at the time, Facebook was under no duty-to-deal equally with products within its own eco-system and those outside. However, neither do the consequences of that choice (e.g. Instagram's easier availability for Facebook members), form evidence of pro-competitive synergies. Rather the improvement is simply an investment by the target (now a division of the acquirer) where the opportunity cost is now paid for by the acquirer (rather than being paid for by the target as an independent third party).

116. A second example is output expansion through advertising or inclusion of the target's product on the incumbent's product (whether that be on its television or radio station or again on its platform). Again access to such 'free' services are of course a helpful way to boost the prospects of the target's product without incurring a financial cost. However this access has an opportunity cost and hence again reflects an unacknowledged cross-subsidy payment between divisions, rather than the payment by third party that it might have been absent the merger.

117. Instead, a merger specific synergy requires that something new that was otherwise not possible is produced as a result of the acquisition. For instance a product innovation, or a cost saving that could not have been achieved had the two firms not merged.

4.3.2. Dynamic efficiencies

118. A second proposed efficiency that has been put forward is that acquisitions of nascent rivals provide an attractive exit route for innovators (Yun, 2019, Business at the OECD, 2019) and therefore help to overcome barriers to exit. While barriers to entry and exit do not help competition, the way in which consumers might benefit from this claimed efficiency in the context of a specific merger is not clear. In particular, any impact would appear to be on the incentives for other future innovators to innovate and provide other new products to other consumers. It is therefore not obvious that there would be any impact on consumers of the products in question.

119. This does not mean that such an impact, if well-founded, would not be a more general concern for competition policy. However, it does mean that it is difficult to see how this should be weighed within the context of the merger at hand. For example, a firm's exclusionary conduct may not only harm consumers, but may also reduce deterrence and hence harm future consumers of different products. However, this broader deterrence effect would not be weighed against any pro-competitive effects of the exclusionary conduct in question.

120. Similarly, the possibility that the owners of the target firm might, following the acquisition, decide to reinvest in new start-ups (and become serial innovators) might be thought to create a dynamic efficiency. However, even if this were accepted, the beneficiaries would again be other future consumers of other unknown future products.

Hence, again it is difficult to see how such efficiencies could possibly be relevant to an assessment of a specific merger.

121. For consumers to actually benefit from the reduction of barriers to exit, it would be necessary that the merger facilitates the efficient exit of a product that would soon be discontinued, or which would otherwise deteriorate in quality or increase in price. These effects are of course captured under the ‘failing’ or ‘flailing’ firm efficiency defence. However, these defences appear to be highly unlikely to be relevant in the case of acquisitions of promising start-ups.

122. More fundamentally, however, it is not at all clear that there is evidence to support either the serial innovator story, or the barriers to exit story. In relation to the serial innovator story, agencies would need to believe that the buy-out would make a sufficiently significant difference to the start-up investment market as to provide funding for investments that would otherwise be unable to attract investment.

123. More interesting therefore is the claimed dynamic efficiency from entrants being able to exit and sell their innovations to dominant incumbents. In such cases the incumbent’s willingness to pay for that innovation might be driven by the value it can bring by improving the firm’s existing product as well as by denying others the opportunity to challenge the existing product’s dominance. This opens up a question of what to do about an incentive to innovate that is based on protecting the market power of a dominant firm.

124. On the one hand, we have intellectual property rules that are designed to create some level of market power for those firms that come up with an innovative ideas and products. This illustrates that we readily allow that a loss of competition is justified to incentivise innovation (since if the value of innovation cannot be appropriated, that innovation will not occur).

125. On the other hand, we do not credit the ‘dynamic incentive’ which a cartel agreement, an exclusionary conduct, or a merger creates by increasing prices and hence ‘incentivising’ investment in innovating to become dominant in a market. Nor do we delude ourselves that a cartel or exclusionary conduct provides funds that might be used for innovation. This suggests that there is a limit to the extent to which we unquestioningly accept the pro-competitive nature of any and all incentives for innovation.

126. Therefore a line must be drawn. On an economic level, and for those that see competition as a dynamic process of innovation to steal market share, it makes sense to draw the line at supporting those incentives for investment in innovation that stem from the *temporary* market power that innovation can create. We would therefore be concerned if the prospect of acquiring temporary (but not persistent) market power were to be damaged. This might explain agencies’ understandable scepticism over excessive pricing cases (except in very particularly circumstances), and their reluctance to resort to price controls. Notably drawing such a line would mean that the loss of incentives to innovate that are created by the prospect of obtaining a share of the *persistent* market power of the incumbent would *not* be a concern, and hence would not be an efficiency, even if they could somehow be attributed to a particular acquisition.

127. Indeed, such incentives to innovate to obtain a share of the persistent market power might distort investment towards those innovations that potentially damage incumbents, rather than those that appeal to the preferences of consumers. For example, Argentesi et al (2020) warn against the risk that “*acquisition prospects may foster inefficient, duplicative innovation*”. It is for example possible that this may lead to a distortion of investment towards incremental ‘me-too’ drugs in pharmaceuticals.⁴⁰

128. Finally, it is *not* clear that the prospect of acquisition creates an incentive to innovate. For example, Zingales et al (2019) model investment incentives and show that nascent acquisitions lead to *reduced* incentives to invest in start-ups. This effect occurs because the prospect of acquisition discourages early adoption of nascent products, and hence makes entry difficult, thereby making them less attractive investments. The authors follow this by identifying a decline in Venture Capital funding for start-ups in the ‘same space’ as the companies acquired by Google and Facebook. Similarly, Singer (2019) cites analysis showing that VC funding for start-ups in the same category as Google (internet software), Facebook (social platform software) and Amazon (internet retail) have each declined dramatically in recent years. It has been pointed out that these categories are not relevant antitrust markets. However, this does not undermine the insight provided by such evidence since the alleged pro-competitive dynamic incentives are also not limited to a relevant antitrust market.

5. What, if any, broader policy response is required to address the challenges that arise from killer and nascent acquisitions?

129. We now look beyond enforcement of existing merger control rules and turn to the question of whether a broader policy response is required to address the issues presented by the acquisition of nascent rivals.

130. As Yun (2019) rightly identifies, the relevant question for policy is whether competition agencies are *systematically* biased in approving anticompetitive mergers, or blocking procompetitive mergers. While there is a debate on this more generally, the answer is somewhat clearer in relation to nascent acquisitions. In particular, as far as we are aware, until very recently none have been blocked, and hence there have been precisely zero instances of errors in which pro-competitive mergers are being blocked (see section 3). We can therefore quickly dismiss the possibility of over-enforcement. This means agencies either have an almost perfect record or a tendency to under-enforce against these mergers.

131. To identify which of these two possibilities applies, agencies have begun to conduct ex-post assessments. In the UK, as noted the CMA commissioned Lear (2019) to examine past cases of nascent acquisitions in digital markets. The study found “gaps in the way these cases were analysed”.⁴¹ Despite these gaps, in half the cases, they found that “the level of competition in the markets concerned does not seem to have been substantially affected by the mergers”.⁴² However, they suggested that half the cases “may have represented missed opportunities for the emergence of challengers to the market incumbents” (though they also noted that there may also have been efficiencies).⁴³

132. Meanwhile, as noted previously, the FTC has recently requested information on hundreds of acquisitions by Google, Apple, Facebook, Amazon and Microsoft over the last 10 years.⁴⁴ The FTC has stated that if during the study it sees that there are transactions that turn out to have been problematic, then all options are on the table, these might include unwinding past mergers, ordering companies to create and divest a separate business organization or imposing behavioral remedies.

133. Looking beyond digital mergers, as set out in the introduction, the paper by Cunningham et al (2018) provides evidence that there are likely to have been significant numbers of cases that might have been blocked or that should at least have been investigated.

134. To address the risk of under-enforcement, the chair of the ACCC has argued that the optimal number of court losses is non-zero, and that a 100% win record suggests

excessive risk aversion.⁴⁵ In this view the role of the agency is not to achieve perfection (which cannot be confidently distinguished from under-enforcement), but rather to identify clearly for all stakeholders where the line between competitive and anti-competitive mergers lies. Identifying this line requires data points on both sides and so the agency should be taking decisions that help delineate the line.

135. It would therefore appear that there is some emerging evidence of a systematic bias towards under-enforcement against anticompetitive acquisitions of nascent firms. This would suggest that a more vigorous approach should be taken to the assessment of nascent acquisitions. Indeed, it would appear that some agencies are already taking a stronger stance on such mergers. However, further changes may be helpful or necessary in order to successfully address under-enforcement against nascent acquisitions. In this section, we therefore set out four different proposals that have arisen as to how competition agencies might rethink their approach to nascent acquisitions. Consistent with the theme of this paper, the nature of such a rethink should be set not against a counterfactual in which the status quo continues, but against the likely counterfactual for policy development. Depending on the jurisdiction, and the sector, this might include a range of alternative proposals that include ex-ante regulation, public interest tests, price caps, market share caps, and nationalisation. That is to say, if the framework is not sufficiently flexible to adjust to avoid repeating past mistakes, it appears increasingly likely to break.

5.1. Economics and rebuttable presumptions

136. Currently, merging firms, and not consumers, enjoy the benefit of the doubt when transactions are assessed. That is to say that while there is a broad consensus on the need for an effects based analysis of mergers, that analysis often takes place against a presumption that mergers that cannot be *confidently* identified as harmful to consumers, should be permitted.

137. It is notable however, that in the US there is a structural presumption that in certain circumstances gives the benefit of the doubt to consumers, rather than to firms. It does so by reversing the burden of proof in concentrated markets and so presumes that such mergers will be anticompetitive, and hence should be blocked, absent evidence to the contrary. This presumption was established in *United States v. Philadelphia National Bank*,⁴⁶ though only recently, Shapiro & Hovenkamp (2018) have recommended strengthening this presumption, by codifying it in a bill that would prevent it from being undermined by the courts. The presumption means that a merger which “*produces a firm controlling an undue percentage share of the relevant market, and results in a significant increase in the concentration of firms in that market is so inherently likely to lessen competition substantially, that it must be enjoined in the absence of evidence clearly showing that the merger is not likely to have such anticompetitive effects.*” The presumption is therefore rebuttable, but clearly shifts to the merging parties the burden of showing that competition in the market will not be diminished.

138. The undue percentage in the case in question was approximately 34-36% with a HHI of 2000-2100 and so would have been in the “highly concentrated” region of the 1982–1992 Merger Guidelines. However, the 2010 Merger Guidelines raised the concentration level required for applying a rebuttable anticompetitive presumption up to a post-merger HHI level of 2500 and an increase in the HHI of 200.

139. Shapiro & Hovenkamp (2018) argue that legislation should go further and require ‘clear and convincing evidence’ to rebut the structural presumption, and that the government should be entitled to the structural presumption if the merger causes the requisite increase in concentration in any properly defined relevant market. They go on to

express support for: a) reducing the threshold for challenging a merger from a “substantial” lessening of competition to a “material” lessening of competition; b) requiring post-merger reporting for transactions resolved through a consent decree; and c) establishing an “Office of the Competition Advocate” to listen to various interested groups of stakeholders and prepare reports about areas meriting antitrust investigation.

140. Wright & Ginsberg (2016) disagree, and note that the agencies abandoned the 30% presumption in the 2010 Horizontal Merger Guidelines, though they continue to sometimes rely upon it in court. They therefore argue that the agencies should stop relying upon it (as they have stopped relying on precedent established in cases such as Brown Shoe, Von’s Grocery, and Utah Pie). In contrast, Salop (2015) argues the need for the structural presumption – of a merger being presumed to be anticompetitive, absent convincing evidence to contrary – to be supplemented by other rebuttable presumptions that would trump the structural presumption in certain circumstances. For example, he suggests adopting a rebuttable presumption based on the gross upward price pressure index (GUPPI) as well as others based on high mark-ups, the acquisition of a maverick and there being a history of collusion.

141. Notably the structural presumption and the presumptions proposed by Salop would be difficult to apply to acquisitions of nascent rivals with little existing turnover, and would therefore not be applicable for killer acquisitions. This is because they would cause a relatively small increment in market share on the basis of their historic markets shares. However, these presumptions demonstrate that reversing the burden on mergers is far from unprecedented.

142. Indeed, when revising its merger control regime in 2002, the UK gave much consideration to creating a rebuttable presumption that placed the burden of proof on firms. For instance, a panel of advisors including the chairman of the OFT, John Vickers, were commissioned to consider and advise on the issue.⁴⁷

143. Therefore, perhaps the most important proposal that has emerged from the debate over the acquisition of nascent firms has been to reverse the burden of proof and create a rebuttable presumption. This has been proposed by two former chief economists in the EU (Professors Valletti and Motta),⁴⁸ in the Crémer report,⁴⁹ the Stigler review, and the ACCC digital review and in the French Senate.⁵⁰ In particular, it is suggested that where the acquirer has an entrenched dominant position, the merging parties would then need to provide evidence that either the merger does not raise any significant competitive issue, or that expected efficiency gains are sufficiently strong to justify the acquisition (Motta & Peitz, 2020). Where they are unable to do so, the acquisition should be blocked and consumers protected.

144. Alternatively, 12 leading US scholars (Baker, Farrell, Gavil, Gaynor, Kades, Katz, Kimmelman, Melamed, Rose, Salop, Scott Morton and Shapiro, 2020) recently advised the US Congress that challenging nascent acquisitions where the nascent rival would dramatically disrupt the market and enhance competition substantially if it succeeded, would be difficult to challenge under current legal doctrine. They therefore proposed that *“Congress could clarify that antitrust laws protect potential and nascent competition. In addition, Congress might consider legislation allowing plaintiffs to prevail in ... merger cases by showing that the challenged conduct increases the risk of competitive harm, instead of the current legal standards, which require, in general, a showing that competitive harm is more likely than not. Or Congress could specify presumptions of competitive harm that, for example, would apply in evaluating a dominant firm’s ... acquisitions.”*

145. Similarly, as described by Fletcher (2020), another approach would be to reverse the burden of proof if, and only if, the agency is able to show a *reasonable prospect of harm*, for example if it could demonstrate a 25-30% chance of harm then the burden might shift to the parties to show that the efficiencies would outweigh any harm to competition.

146. These proposals therefore helpfully identify that a rebuttable presumption need not rely on an increment in market concentration (as in the structural presumption in the US). Instead, it might hinge on a showing of dominance, and hence help to recalibrate decision-making to remove the bias in favour of under-enforcement against acquisitions of nascent firms.

147. Such a bias may sometimes reflect the caution of public institutions, however in other cases it may be there by design. For instance, the Chicago school has for many years argued that the risks of erroneous interventions (over-enforcement) outweigh the risk of erroneous non-interventions (under-enforcement), and so justify building in an under-enforcement bias. Its proponents have based this on the proposition that markets self-adjust. For example, faith in this proposition leads to the conclusion that mistakenly allowing the creation of market power by under-enforcing will result in only short-term harm since the associated profits will soon attract new entrants that will undercut the incumbent and drive price back down (see for example OECD, 2020c). Indeed, it is argued by some that just the prospect of this new entry, or ‘contestability’, will be sufficient to hold back merging firms from increasing prices (Baumol, 1982).

148. In contrast, this line of thinking suggests that markets will not resolve erroneous interventions (over-enforcement).⁵¹ If true, this would mean that those efficiencies are lost for good, and will deter rival firms from seeking to merge to achieve efficiencies (though these interventions may also encourage acquisition by an alternative non-rival purchaser). This allegedly asymmetric risk therefore leads proponents to conclude that errors of under-enforcement should be favoured on the basis that their impact on consumer welfare will be smaller than that of errors of over-enforcement.

149. While a ‘more economic approach’ is sometimes blamed for this cautious approach, this is misleading.⁵² In the first place, a more economic approach would, unlike a more stylised theoretical approach, not ignore the complexities and nuances of the imperfect competition that is demonstrated in markets that exist outside the textbook. After all, economists study the realities of how scarce resources are allocated, not simply theories of how they might do. An economic approach would therefore recognise and seek to measure and reflect in decision-making the effect of switching costs, transaction costs, asymmetric information, network externalities, cross-platform externalities, barriers to entry, exit and expansion, imperfect rationality and behavioural bias, economies of scale and scope, reputation building and signalling, learning by doing, and so on.

150. Moreover, to return to theoretical textbook economic predictions, a *static* economic analysis of any merger between firms selling differentiated products in the same product market would lead to a prediction that the merger would raise price or decrease quality by *some* degree. This deterioration might of course be minor in more competitive markets,⁵³ but this prediction would suggest that *any* merger of products within the same market would need to generate a certain level of efficiency in order to outweigh the relevant reduction in the competitive constraints. Indeed, given the poor record of mergers in achieving efficiencies – an estimated 70-90% of mergers are said to fail to meet their own terms⁵⁴ – it would be extremely risky to simply assume that such efficiencies exist.

151. The question is of course then whether the *dynamic* effects can be predicted. Here it is certainly important to consider the reactions of other firms to the merger and the loss

of substitutability that it brings. Where the merger increases profits at the expense of consumers (and/or workers) this may act as a signal for potential entrants.

152. However, it should be noted that such entrants would only enter if they expect the post-entry profits to be large enough to justify it (not the pre-entry profits of the incumbent). Hence, while pre-entry profits of a merged firm might draw attention, they would only attract entry where the post-entry profits are expected to be high enough to outweigh the sunk costs of entering. For example, the entrant would need to expect for some reason that the incumbent would not react to entry by reducing its price or raising quality. If no such response were likely, perhaps due to long term contracts, then pre-entry incumbent profits might be a reliable signal of post-entry profits for the entrant. However, such cases might be rare, particularly in markets in which entrants would also need to invest large sunk costs to build the necessary intellectual property (as in some pharmaceutical markets) or to overcome strong network effects (that some platforms might enjoy).

153. Moreover, as Werden & Froeb (1998) identify, where there are sunk costs, merging parties would, absent efficiencies, not choose to merge if they expected that doing so would attract entry that prevented them increasing their mark-up. Therefore, post-merger entry would only be triggered by the merger where there are significant efficiencies, meaning that the possibility of post-merger entry follows from the efficiencies assessment. Post-merger entry may of course occur for reasons unrelated to the merger. When assessing the possibility of anti-competitive effects of a merger in a market with sunk costs, the agency should therefore take it as given that while post-merger entry may occur, it would not be triggered by the merger, unless the merger delivers relevant pro-competitive efficiencies.⁵⁵

154. In addition, for killer acquisitions, if there were a profitable entry opportunity, and an entrant capable of taking advantage were to enter, then a permissive approach to nascent acquisitions might risk that entrant then being acquired, perpetuating the incumbents reputation for fighting entry, and meaning that the initial acquisition did not have only a short-term effect (Bryan & Hovenkamp, 2019).

155. Taking the static and dynamic predictions together, there are therefore good economic grounds for adopting a presumption that could be rebutted through an effects based analysis. For instance a presumption that acquisitions of products within the same market by dominant firms will have some, possibly small, anti-competitive effect. This would not in any way dismiss the possible existence of efficiencies that might outweigh such an effect; rather it would not simply assume that such efficiencies necessarily exist, or that they are large, particularly since such an assumption is not grounded in economic theory. To be clear on this, we can of course add economies of scale or scope to economic theories of competition when they are found to exist, but their presence is not a theoretical prediction of the economic model. Rather they are there by assumption (and hence require a basis in the facts of the case).

156. In this respect, the contrast with vertical mergers is instructive, since in these cases economic theory does itself provide a grounding for an expectation of efficiencies in the form of eliminating double-marginalisation, albeit under more specific circumstances than are often appreciated. For instance, Kwoka & Slade (2020) have argued that eliminating double-marginalisation has been uncritically assumed by agencies despite the fact that violations of the simple model in which double marginalisation is eliminated “*occur in almost all cases*”, and that in many cases such effects would not be specific to the merger. Nevertheless, even if sometimes overplayed, this economic grounding would suggest that the rebuttable presumption that vertical mergers are usually pro-competitive should therefore remain where it is, albeit that it should be possible to rebut, rather than the near absolute presumption that some courts appear to have adopted.

157. Indeed, given the consistent inability of merging parties to demonstrate merger specific efficiencies when actually required by agencies to do so, it seems odd that their existence should simply be assumed. This is, for example, necessary in order for Upward Pricing Pressure (UPP) or GUPPI tests to identify a lack of upward pricing pressure between substitutable products. Typically, for example the GUPPI is interpreted against a threshold that assumes an increase in efficiency of 5-10% (see Lear, 2016).⁵⁶

158. It should therefore be clear that an *assumption* that efficiencies exist, is not based on an economic prediction, but instead is in fact based on a legal doctrine that presumes that the freedom of firms to act should not be constrained, except where it can be *proved* that harm will follow. This prioritisation of the rights-of-the-firm at the expense of prioritising the welfare-of-consumers has certainly been widely adopted, and it is conceivable that it might be the right call, but it is a subjective judgement call, and should not be confused with an economic analysis of the likely impact on consumer welfare. Furthermore, whether it is in fact the right call is far from clear. Rising mark-ups and profits across the OECD (OECD, 2018c) appear to have a variety of causes; however, they are certainly consistent with the allegation that the choice of policymakers to prioritise the rights of firms (in the belief that this would benefit consumers) has come at a cost for consumers and workers.

5.2. Expected harm test

159. While the Furman review did not recommend creating a rebuttable presumption, it did recommend a change of the merger test. In particular, it advised that there should be a shift from the ‘balance of probabilities’ test to what it called a ‘balance of harms approach’ or an ‘expected value test’. Such an approach is also proposed in the Stigler report, and has received support from Crémer, Pecman et al (2020), and Motta & Peitz (2020) amongst others.

160. The balance of probabilities test that is currently used to implement the merger test requires agencies to hold an expectation that the nascent firm is likely to succeed as a business (otherwise, no constraint can be considered to be lost). In contrast, a more economic approach such as an expected harm test, would look not only at the likelihood of harm occurring, but also the likely scale of the anticompetitive effects if harm did occur. This approach would therefore differ in that it would lead to intervention in circumstances where the risk of harm is lower, but the scale of harm is high, and hence the expected value of the harm is high (probability of harm multiplied by magnitude of harm).

161. Some critics have suggested that unlikely events require a greater burden of proof (for instance reports of a lion being seen loose in Regents Park, as opposed to a dog being seen loose in the same park). Such an observation however would arguably not serve the public well given the implications of the unlikely event actually occurring. For this reason, citizens are asked not to leave suitcases unattended in airports, again despite the probabilities favouring a relaxed attitude, the consequences and hence the expected value of intervention are clear, and failing to recognise the difference would be negligent.

162. The practical relevance of moving to a balance of harms test is clear in Lear’s (2019) ex-post review of digital mergers for the CMA. This notes that the agency found evidence “*that Instagram and Waze had witnessed constant and significant growth in the years leading up to the merger, had promising business models and plans for an expansion that might have increased their relevance in the markets where their acquirers were active.*” Yet, they explain that “*the Authorities dismissed this evidence mostly due to the uncertainty surrounding whether Instagram’s and Waze’s potential would have been realized.*” They conclude that “*rarely, if ever, will the Authorities find conclusive evidence*

of future growth: potential competition theories of harm will always entail a certain degree of uncertainty.” This would suggest that harmful acquisitions of nascent rivals, which inevitably carry significant uncertainty, will continue to evade merger control unless this uncertainty is reflected in the test that is applied.

163. This is not to ignore the difficulties in implementing such a test, but rather to recognise that even difficult jobs must be done. For instance, despite being systematically biased in favour of under-enforcement, it is argued that the balance of probabilities test is clearer and more predictable than an expected harm test.

164. Clarity of the test could, however, be improved if agencies were to set out transparently the probabilities they attach to different counterfactuals, and to allow parties and stakeholders to observe and challenge the weights (or probabilities) attached to each counterfactual. This would be particularly helpful for conducting the ex-post assessments of internal agency predictions that have been proposed (for example by Wright, 2018).

165. This would certainly be preferable to an alternative in which agencies maintain a balance of probabilities test, but inflate the likelihood that is ascribed to the emergence of the constraint from potential competition. This would undermine transparent policymaking and future ex-post assessment would no doubt highlight the inevitable inaccuracy of these inflated likelihoods, leading to further readjustments.

166. Predictability of the merger control regime is also relevant for firms considering whether to invest in a merger (which can be a risky and expensive exercise as has been noted). However, whether the test is a balance of probabilities test or a balance of harms test, the uncertainty in enforcing the law in the nascent and killer acquisition cases makes merger control difficult to predict, and this is unfortunately unavoidable.

167. Responding to the Furman review, the CMA appeared to agree that there were practical difficulties in adopting an expected harm test, and expressed concern that it might substantially increase the number of interventions in more traditional areas, and bring about “*a fundamental shift in merger policy*”. Arguably, such a shift is precisely the policy response that is required, particularly given the acknowledgement by the chair of the CMA that there has probably been under-enforcement in some areas, and the risk that this under-enforcement may create competition problems further down the line.⁵⁷ The CMA is currently reviewing its merger assessment guidelines.

5.3. Threshold and Notification adjustment

168. Several proposals have been put forward to change the merger notification regime, either for specific sectors and/or firms, or more generally to enable competition authorities to assess potentially harmful transactions which are not caught by the current rules. One proposal would be to lower the existing turnover thresholds. However, doing so in the context of a mandatory notification system would inevitably result in large numbers of low turnover transactions being notified. This option has therefore not been adopted, but several jurisdictions have introduced, or propose to introduce, additional or complementary thresholds or criteria, notably value-based thresholds, and the imposition of notification requirements on specific firms.

5.3.1. Transaction value thresholds

169. One proposal has been to introduce complementary thresholds, based on alternative criteria, such as transaction value. These would apply alongside existing turnover thresholds and would enable high value low turnover transactions that might pose a threat to potential competition to be investigated.

170. In doing so this would shift towards using a screening threshold that focuses not only on current turnover, but also on transaction value, which in contrast to current turnover, can also reflect future strength. Such a proposal helpfully recognises that a loss of a rival that will be important in the future can be as harmful as a loss of an already important rival. It accepts the view that the turnover of a transaction can be a useful filter to ensure that transactions that might reduce *existing* competition in reasonably important markets are examined by competition agencies. However, it recognises that a loss of potential competition might not be captured by such a filter.

171. The introduction of an additional transaction value threshold was discussed in the European Commission’s consultation on Evaluation of procedural and jurisdictional aspects of EU merger control. The paper notes the risk that it would create an additional administrative burden, which would be resource intensive and may place unnecessary burdens on businesses. However, Bourreau & De Streel (2020) note that an additional transaction value threshold would ‘not necessarily increase substantially the number of concentrations to be notified, as the merger transaction value is aligned with the merging firms’ monetary turnover in the majority of cases’.⁵⁸ Similarly, the Stigler report notes the potential use of transaction value thresholds, specifically for the review of mergers of digital platforms and start-ups. The authors argue that in these areas there is a need to change the current criteria, given that turnover thresholds alone do not catch all relevant transactions that should be reviewed.

172. In relation to the transaction value test itself, the main criticisms focus on the difficulty of determining the value of a transaction at the time of filing. During the EU’s Consultation on Evaluation of procedural and jurisdictional aspects of EU merger control, stakeholders cited considerations which could have a significant impact on the value of the transaction such as changes in share prices and exchange rates ‘between the announcement of a transaction and its closing’ and ‘contractual earn out provisions or conditional milestone payments’.⁵⁹ In its submission to the EU consultation, the CMA explained, in relation to deals involving shares or assets, that if introduced, the test would need to ‘take volatility into account, for example by setting a specific date relevant for valuation’.⁶⁰ Such considerations suggest that clear guidance would need to be provided in a mandatory notification system in order to allow firms to self-assess.

173. While guidance could quickly resolve such issues, another disadvantage is that value, unlike turnover, cannot be easily linked to a local market. Hence, a merger might be notifiable to agencies that adopt such thresholds even if the firms do not compete in the market overseen by those agencies. This is referred to as the difficulty of guaranteeing a ‘sufficient local nexus’. For example, would a high value merger that does not affect country X need to be notified to there? And if not, how, in practice, would the firms demonstrate that it does not affect country X?

174. The European Commission explained that “*most respondents consider that: A general clause (possibly supplemented by guidance that could be sector-specific) requiring activity or measurable competitive impact within the EEA would be too vague and would lead to legal uncertainty, possibly leading to the notification of many transactions without a clear nexus to the EEA*”. It also noted that for digital transactions in particular, it could be complicated to “*geographically allocate the transaction value (if such allocation were required as part of a deal-size test)*”.⁶¹

175. Despite these concerns, Germany and Austria have introduced a size of transaction threshold into their merger control regimes (See Box 9 below). This means that parties are required to notify a merger or acquisition when the value of the transaction is above a certain threshold, catching transactions which may not meet the standard turnover thresholds.⁶² In Germany, the value of transaction is set at EUR 400 million.⁶³ In addition

to this, section 35(1a)(1) [of the German Competition Act] ensures however that the combined worldwide turnover of the parties is significant and 35(1a)(4) ensures a local nexus requirement.

176. While the change is a recent one, it has been reported that the number of notified transactions has not radically changed. For example, the Bundeskartellamt reported that in 2017 it received eight notifications based on the transaction value thresholds and 10 in 2018.⁶⁴ As explained by Sauermann (2019), this is a tiny fraction of the total number of notifications received by the authority (2686 in 2017/18). Similar results were reported in Austria.⁶⁵

177. In relation to the 18 cases notified pursuant to the transaction value threshold in Germany over this two year period, seven cases were withdrawn as the Bundeskartellamt considered that the notification requirements were not met and in the 11 other cases, the authority cleared the merger during Phase 1.⁶⁶ Interestingly, Sauermann notes the sectoral distribution of the concerned transactions, as reported by the Bundeskartellamt, as being spread between the ‘pharmaceutical, chemical and IT industries’. For example, the merger between Microsoft and GitHub was referred to the EU by the parties because it met the new transaction value thresholds in Germany and Austria and was also reviewable under the competition laws in the UK and Cyprus.⁶⁷

178. Some have argued the small number of additional notifications created by these new transaction value rules suggests they add little value. However, firstly, the cases that are added may be important for consumer welfare. Secondly, it should be expected that these rules would deter the regulatory ‘gaming’ of turnover thresholds, and thereby discourage firms from proposing such mergers. Thirdly, the small numbers suggest that the additional cost to business has been a small one.

Box 9. Size of Transaction Thresholds: the case of Germany and Austria

In 2017, Germany amended its Competition Act (GWB), specifically, Section 35 (Scope of Application of the Control of Concentrations), introducing a size of transaction threshold alongside its turnover threshold. The relevant parts of section 35 of the GWB now reads:¹

35 Scope of Application of the Control of Concentrations

(1) The provisions on the control of concentrations shall apply if in the last business year preceding the concentration

1. the combined aggregate worldwide turnover of all the undertakings concerned was more than EUR 500 million, and

2. the domestic turnover of at least one undertaking concerned was more than EUR 25 million and that of another undertaking concerned was more than EUR 5 million.

(1a) The provisions on the control of concentrations shall also apply if

1. the requirements of paragraph 1 no. 1 are fulfilled,

2. in the last business year preceding the concentration

a) the domestic turnover of one undertaking concerned was more than EUR 25 million and b) neither the target undertaking nor any other undertaking concerned achieved a domestic turnover of more than EUR 5 million,

3. the consideration for the acquisition exceeds EUR 400 million and
4. the target undertaking pursuant to no. 2 has substantial operations in Germany.

Joint Guidance was issued in 2018 by the German Bundeskartellamt and the Austrian Bundeswettbewerbsbehörde. The guidance seeks to provide legal certainty by defining key terms and by providing practical examples.²

Notes:

1 Act against Restraints of Competition in the version published on 26 June 2013 (Bundesgesetzblatt (Federal Law Gazette) I, 2013, p. 1750, 3245), as last amended by Article 10 of the Act of 12 July 2018 (Federal Law Gazette I, p. 1151), http://www.gesetze-im-internet.de/englisch_gwb/englisch_gwb.html#p0339

2 Bundeskartellamt, 8.07.19, Press release, Joint guidance on new transaction value threshold in German and Austrian merger control - Publication of final version: https://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Pressemitteilungen/2018/09_07_2018_Leitfaden_Transaktionsschwelle.html?nn=3591568

179. If we take a dynamic perspective, there is also the risk that applying new transaction-value thresholds simply incentivises firms to adapt and to purchase earlier in the development phase. This may therefore point towards the need to adopt more flexible criteria, rather than seeking to expand mandatory notification.

180. Indeed, the countries with more flexible criteria seem content with their criteria. The Furman review noted that the share of supply test in the UK provided adequate coverage of relevant deals for the moment, given its flexibility, but that a value of transaction test could be considered if difficulties arose in the future.⁶⁸ The satisfaction with the share of supply test might also suggest that the uncertainty created by thresholds and notification requirements might not be as significant as is sometimes suggested.

5.3.2. Targeted approach

181. Another option is to single out a specific list of undertakings to whom a special regime should apply. This possibility currently exists in Norway where specified firms must notify all mergers. The Crémer report notes that some jurisdictions are recommending that specific companies have an obligation to make the competition authority aware of all acquisitions. Indeed, in a sense, this aligns with the concept in EU competition law that dominant undertakings have special obligations.

182. Similarly, in the context of the UK's voluntary notification system, the Furman review recommended that 'Digital companies that have been designated with a strategic market status should be required to make the CMA aware of all intended acquisitions' (Recommended Action 8).⁶⁹

183. In Australia, where there are no notification thresholds, the ACCC Digital Platforms Inquiry recommended that Large Digital Platforms provide advance notice of acquisitions. The relevant recommendation (Recommendation 2) reads: "*Large digital platforms to agree to a notification protocol, to provide advance notice to the ACCC of any proposed acquisitions potentially impacting competition in Australia. The details of the notification protocol will be agreed between the ACCC and each large digital platform, and would specify: the types of acquisitions requiring notification (including any applicable minimum transaction value), and the minimum advance notification period prior to completion of the proposed transaction to enable the ACCC to assess the proposed acquisition. If such a commitment were not forthcoming from the large digital platforms, the ACCC will make further recommendations to the Government that address this issue*".⁷⁰

184. There was also a law recently proposed law in France, which would require ‘systemic companies’ to inform the French competition authority of all acquisitions (Chapter 3, Article 7 of the draft law)⁷¹. This proposal was inspired by the Norwegian regime.⁷² Similar proposal have been made in Italy and in the Netherlands.

185. In the US, the Stigler report encourages the creation of a sectoral regulator, “the Digital Authority”, which would have the power to review mergers. The report proposes that threshold limitations should not apply to these firms, and that compulsory filings could be required for firms labelled as having ‘bottleneck power’. It proposes that it could oversee “*even the smallest transactions involving digital businesses with bottleneck power because nascent competition against these entities is very valuable for consumers*”.⁷³ The Digital Authority would conduct merger review alongside the FTC or DoJ, ‘but with different standards and tools’.⁷⁴ The Stigler report argues that ‘it would not be prudent to alter the nation’s antitrust laws to accommodate one difficult and fast-moving sector where false negatives are particularly costly. Therefore, giving additional power over merger review to the sectoral regulator is a good solution’.⁷⁵

186. Maintaining a list of designated firms, and ensuring that those firms can exit this list when appropriate is however not a straightforward task. Moreover, if the intention is to capture the risks posed by potential competition, then it is not clear that such risks are confined to defined sectors. For instance, even if pharmaceuticals, digital and medical devices sectors could be easily defined, which they cannot, potential competition theories of harm might also arise in any market in the economy where start-ups can threaten the position of a dominant firm.

5.4. Ex-post review

187. A different approach to dealing with uncertainty of nascent acquisitions is to acknowledge the uncertainty, take a cautious and permissive ex-ante approach and then be willing to intervene ex-post to break up consummated mergers. A number of countries have some sort of ex-post review powers, including Hungary, Ireland, Sweden and Lithuania. France is currently considering introducing ex-post review.⁷⁶ Other jurisdictions with ex-post review include the US, Japan, Brazil, Canada and the UK.⁷⁷

188. It is notable that different jurisdictions use different time limits for ex-post intervention. The US is the only jurisdiction where there is no statutory time limit. In the UK, intervention must be within four months, while in Canada, Mexico and Brazil, the review or request for notification must be made within one year of the merger.⁷⁸

189. While ex-post assessment might be expected to make it easier for agencies to trace the extent to which the success of the target’s product depended on the acquisition, this difference might be relatively minor. Indeed, in such cases agencies will need to avoid falling into the fallacy of believing that the observed success was inevitable in the counterfactual that the target was acquired by an alternative firm, or that it remained independent.

190. Moreover, in such cases as demonstrated by both the Bazaarvoice-Power Reviews and the Evanston Hospital cases, it is extremely difficult to untangle mergers where significant integration has taken place.⁷⁹ If the best solution that can in practice be achieved after an ex-post investigation is optimistic behavioural remedies then there may be little advantage to investigating ex-post rather than ex-ante.

6. Conclusion

191. The loss of potential competition that may result from an acquisition of a nascent firm is not a novel theory of harm. However, recent empirical work showing that in certain circumstances such an acquisition has triggered the loss of not only a competitive constraint, but also a product, has drawn attention to the harmful effects that anti-competitive nascent acquisitions can have. Indeed, in such cases the strategy appears to amount to an expensive exclusionary strategy, and should face the possibility of being investigated as such when acquisitions have not been examined via merger control. That is ex-post investigation where necessary.

192. However, an anti-competitive nascent acquisition need not involve the killing of a product. The loss of a potential nascent competitor may also harm consumers simply because the merged firm internalises the effects of its decisions on price, quality, and innovation. Agencies do not have unlimited resources, and need to prioritise those that they do have, and this makes it doubly important to recognise that the mergers that present the greatest harm to consumers can be those that remove constraints from firms that were not yet mature. Ensuring that acquisitions of nascent firms are investigated rigorously, and blocked where necessary, should therefore be high amongst agencies' priorities.

193. Some of this can already be addressed, and indeed some agencies have used the flexibility of their legal and analytical frameworks to quickly move to begin to enforce merger control in this previously neglected field. However, for others it is more difficult, and indeed even those that have moved quickly may face setbacks along the way, therefore policy change may be necessary to be confident that agencies can successfully challenge the anticompetitive nascent acquisitions that need to be challenged to fulfil agencies' duty to protect competition and consumers from harm.

194. A number of policy proposals, each with a strong economic basis, appear attractive. Firstly, as a priority, agencies should look to ensure that the combination of rules, and thresholds or screens that are used to prioritise their work do not screen out acquisitions that remove potential rather than actual competition constraints. Greater flexibility, additional transaction value screens, and the possibility of ex-post review each appear to be working well and are therefore worth exploring where agencies are concerned that anticompetitive mergers might be being missed.

195. Secondly, agencies need to find ways to address the heightened uncertainty in nascent mergers. One element of this is to select the counterfactual on the best evidence available, and to acknowledge where there are multiple possible counterfactuals, rather than defaulting to caution and inaction when the evidence is uncertain. Where the evidence on which to form an expectation of the counterfactual is relatively thin, it will be difficult to choose between possible counterfactuals, and courts may ultimately disagree with the agency's conclusions in some cases. Agencies should not see such losses as a source of shame, but as an endorsement that they are being effective in delineating the types of mergers that are permissible and those that are not. Furthermore, it is important that governments reflect this in their assessment of the performance and the value-added by their agencies.

196. Thirdly, the balance of probabilities test introduces a systematic bias against challenging mergers that are expected to result in anticompetitive effects. This occurs because when the probability of harm is significant but less likely than not (e.g. 30-50%), but the consequential harm to consumers is high, the test requires clearance, while an economic risk-based analysis might advise against inaction. This is particularly relevant to nascent acquisitions (under both killer and potential nascent competitor theories of harm)

because the probability of harm from such acquisitions is less likely to very clear (e.g. 70%+) given the nascent nature and inevitably uncertain prospects of the target firm.

197. Finally, there are already examples in which the burden of proof is reversed in certain circumstances, see for instance rebuttable presumptions that are applied to acquisitions that significantly increase a dominant market position. In the case of nascent acquisitions the historic evidence is a less reliable indicator of future competitive constraints, and so the information asymmetries between the merging parties and the agency are more pronounced than ever. Therefore there is a particularly strong case for legislation to support enforcement by agencies by creating rebuttable presumptions in regard to nascent acquisitions. However, for nascent acquisitions it would be important that these presumptions were not based on the increment in market share (which will be inevitably small in any such transaction). Instead as others have suggested, a rebuttable presumption of harm might be applied when there is a showing of the dominance of the acquirer, or that the acquisition increases the risk of competitive harm, for example that there were a reasonable (25-30%) prospect of harm.

Endnotes

¹ Furman & Orszag (2015) identified that an increasingly large fraction of firms in the US were obtaining annual returns to capital of more than 10, 20 and 30 percent, and cautiously suggested that consolidation might be contributing to this increase in the share of firms with apparently supra-normal returns

² Cunningham et al, *Killer Acquisitions*, page 1.

³ While we focus on the product market aspect we note that there is, as always, an input purchasing version of the same theory. In this case, that story might be that the firm acquires and closes a nascent start-up that competes or would otherwise compete for workers. However such a theory would need to explain why those workers lack alternative employers that would pay them their marginal revenue product.

⁴ Notably this distinction is not always followed and so the concept has been loosely applied to many acquisitions in which it is considered that competition has been killed (rather than the product itself).

⁵ Indeed any horizontal merger concern boils down to a competitive threats being extinguished or ‘killed’.

⁶ Cunningham et al, see Table 9 (The intensity of project discontinuation around FTC Review Threshold’ on page 58.

⁷ Furman review, See para 3.45.

⁸ The Economist, 26/10/2018, “American tech giants are making life tough for start-ups”.

⁹ The report was commissioned by the UK Competition and Markets Authority (CMA) on the evaluation of past merger decisions in UK Digital markets “Ex-post Assessment of Merger Control Decisions in Digital Markets” (Lear report). See page 11.

¹⁰ Furman review, See para 3.43.

¹¹ Furman review, See Paragraph 3.43.

¹² Lear Report, page 65.

¹³ Scott Morton, F., Bouvier, P., Ezrachi, A., Jullien, A., Katz, R., Kimmelman, G., Melamed, D. and J. Morgenstern (2019), Stigler Committee on Digital Platforms – Final Report, Stigler Center for the Study of the Economy and the State (Stigler Report), page 16. <https://www.publicknowledge.org/wp-content/uploads/2019/09/Stigler-Committee-on-Digital-Platforms-Final-Report.pdf>

¹⁴ Other criteria for establishing merger notification threshold include assets, market share and transaction value. The OECD Competition Trends report surveyed 55 jurisdictions and noted that 52 use turnover, 15 assets, 9 market share and 5 transaction value as the criteria for determining merger notification thresholds (see OECD Competition Trends, page 54).

¹⁵ [C(2005)34]

¹⁶ See DAF/COMP/WP3(2014)1 – Investigations of consummated and non-consummated mergers, page 7, paragraph 16. Notably the turnover test is sometimes specified differently for different sectors, see for instance the Dutch healthcare sector.

¹⁷ As of 2014, Canada, Brazil, Japan, Korea, Mexico, Norway and Lithuania had an exception which allowed competition authorities to review a transaction which fell below the notification threshold. See page 7 (paragraph 16) of DAF/COMP/WP3 (2014)1. This power to review was generally limited in time (1 year post merger).

¹⁸ See for example the explanatory memorandum of the French Senate ‘Proposition de loi visant à garantir le libre choix du consommateur dans le cyberspace’ which notes measures which would enable the French competition authority to oblige “systemic companies” to notify all mergers. This is inspired by the regime in Norway.

¹⁹ The share of supply test is defined under Section 23 of the Act. See: <http://www.legislation.gov.uk/ukpga/2002/40/section/23>

²⁰ Getting the deal through: US Merger Regime, Westlaw description of merger regime: [https://content.next.westlaw.com/Document/Ieb49d8761cb511e38578f7ccc38dcbee/View/FullText.html?contextData=\(sc.Default\)&transitionType=Default&firstPage=true&bhcp=1](https://content.next.westlaw.com/Document/Ieb49d8761cb511e38578f7ccc38dcbee/View/FullText.html?contextData=(sc.Default)&transitionType=Default&firstPage=true&bhcp=1) See, Hart-Scott-Rodino Antitrust Improvements Act of 1976 < <https://uscode.house.gov/view.xhtml?req=granuleid%3AUSC-prelim-title15-section18a&edition=prelim>>

²¹ FTC Media Release, FTC to Examine Past Acquisitions by Large Technology Companies, 11 February 2020, <https://www.ftc.gov/news-events/press-releases/2020/02/ftc-examine-past-acquisitions-large-technology-companies>

²² Federal Trade Commission, *Commission Rules that Evanston Northwestern Healthcare Corps Acquisition of Highland Park Hospital Was Anticompetitive*, 7 August 2007, <https://www.ftc.gov/news-events/press-releases/2007/08/commission-rules-evanston-northwestern-healthcare-corps>

²³ See, U.S.V.BAZAARVOICE, INC <https://www.justice.gov/atr/case/us-v-bazaarvoice-inc>

²⁴ See the Competitive Impact Statement, <https://www.justice.gov/atr/case-document/file/488826/download>

²⁵ See Guniganti, P (2014) <https://globalcompetitionreview.com/article/usa/1059167/doj-takes-hard-line-on-bazaarvoice-remedy>

²⁶ See, Sweden's contribution to the Working Party No. 3 of the Competition Committee on Investigations of consummated and non-notifiable mergers, 5 February 2014, DAF/COMP/WP3/WD(2014)6 [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DAF/COMP/WP3/WD\(2014\)6&docLang=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DAF/COMP/WP3/WD(2014)6&docLang=En) The Swedish Competition Authority can require undertakings to notify a transaction ex-post under 'particular grounds', when mandatory notification requirements are not met. For this to occur, the undertakings must meet the relevant combined turnover thresholds but not the individual turnover thresholds. 'Particular grounds' are not defined in the Swedish Competition Act but are mentioned in 'preparatory works'. See also commentary for example from : <https://www.bakermckenzie.com/en/insight/publications/2019/12/swedish-merger-control-under-the-thresholds>

²⁷ Furman review, para 3.46

²⁸ See CMA's Merger Assessment Guidelines: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/284449/OFT1254.pdf, para 4.3.7

²⁹ See, for example, CMA's Merger Assessment Guidelines: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/284449/OFT1254.pdf.

³⁰ <https://www.wired.com/story/tim-wu-explains-why-facebook-broken-up/>

³¹ See OECD (2018b), Summary of discussion, page 10. The CMA selected eight mergers it had approved over the last ten years on the assumption that entry and expansion of rivals would occur. It looked at key factors that drove its clearance decisions, and looked back at the public and private data to assess whether there had been a post-merger entry and expansion or not. The ex post analysis revealed that in four out of the eight mergers the CMA probably made the wrong decision, which suggested a tendency towards inflated optimism about the likelihood of entry and expansion.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/606693/entry-and-expansion-in-uk-ex-post-evaluation-kpmg.pdf , pages 80-82.

³² UK merger guidelines, para 4.3.3.

³³ It is sometimes argued that agencies should also explore whether a merger that leads the merged entity to increase profit would thereby attract entry, and hence mean that the dynamic effects of the merger might not harm consumers (see OECD, 2020c). However as we discuss in section 5.1 this is both unreliable as a prediction, and in any case, unnecessary as an analytical step within an assessment framework that considers whether an anticompetitive merger will generate efficiencies.

³⁴ Furman Review, pages 96-97.

³⁵ Surveys looking at hypotheticals can of course be challenging, but they are nevertheless commonly used by firms themselves to ascertain the prospects or location of a planned entry.

³⁶ Notably this follows the logic of unexplained wealth orders, under which wealth the origin of which cannot be explained is attributed to criminal activity and seized. See, for example, National Crime Agency, *NCA secures Unexplained Wealth Orders for prime London property worth tens of millions*, 29 May 2019 <https://www.nationalcrimeagency.gov.uk/news/nca-secures-unexplained-wealth-orders-for-prime-london-property-worth-tens-of-millions>

³⁷ See, Charles River Associates, Competition Memo, *Acquisitions of Potential Rivals in Digital/Tech: Valuation Analysis as Key Economic Tool - PayPal/iZettle* <https://ecp.crai.com/wp-content/uploads/2019/06/Use-of-valuation-analysis-in-merger-assessment.pdf>.

³⁸ Robbie Richards, *How to Value a Startup Company With No Revenue* , 9 July 2019 <https://masschallenge.org/article/how-to-value-a-startup-company-with-no-revenue>

³⁹ We discuss the circumstances in which agencies might wish to examine a killer acquisition theory of harm in addition to a potential competition theory of harm in paragraph 101.

⁴⁰ Notably we may also have a distortion of innovation towards products that would enjoy the protection of network effects, or other barriers to entry, this emphasises the point that not all innovation is equally valuable. Indeed this may be reflected in the productivity slump that has occurred at a time of considerable but perhaps unproductive innovation.

⁴¹ Lear report, page xii.

⁴² Lear report, page xiii.

⁴³ Ibid.

⁴⁴ FTC Media Release, FTC to Examine Past Acquisitions by Large Technology Companies, 11 February 2020, <https://www.ftc.gov/news-events/press-releases/2020/02/ftc-examine-past-acquisitions-large-technology-companies>

⁴⁵ Will Rod Sims' tougher approach pay off for the ACCC? 6 September 2011 <<https://theconversation.com/will-rod-sims-tougher-approach-pay-off-for-the-acc-3173>>. See, also, Chairman's address: Law Council of Australia, 9 August 2013, <https://www.accc.gov.au/speech/chairmans-address-law-council-of-australia>

⁴⁶ United States v. Philadelphia Nat'l Bank, 374 U.S. 321 (1963).

⁴⁷ See, John Vickers at the International Mergers Conference, London February 2020.

⁴⁸ Valletti (2018): <https://ecp.crai.com/wp-content/uploads/2018/12/Tommaso-Valletti-2018.pdf> (slide 5), and Motta & Peitz (2020): <https://www.crctr224.de/en/research-output/discussion-papers/discussion-paper-archive/2020/big-tech-mergers-massimo-motta-martin-peitz>

⁴⁹ Crémer, J., de Montjoye, Y.-A. and Schweitzer, H. Competition policy for the digital era, Report to the European Commission, (2019) (Crémer Report). <https://ec.europa.eu/competition/publications/reports/kd0419345enn.pdf>

⁵⁰ The Stigler report suggests the creation of a regulator (DA) which would also have additional power over merger review. "These specific merger regulations should require merging firms to demonstrate that the combination will affirmatively promote competition. This shifting of the burden of proof from the government (to prove harm) to the parties (to prove benefit) will assist the DA by placing the job of demonstrating efficiencies on the parties, who have a greater ability to know what they are." (p111). Similarly the ACCC (2019, p. 199) note that "it may be worthwhile to consider whether a rebuttable presumption should also apply, in some form, to merger cases in Australia. ... [A]bsent clear and convincing evidence put by the merger parties, the starting point for the court is that the acquisition will substantially lessen competition." See, *Proposition de loi visant à garantir le libre choix du consommateur dans le cyberspace*: <http://www.senat.fr/dossier-legislatif/pp119-048.html>

⁵¹ Notably the idea that markets would react to the breaking up of large networks by recreating those networks is one of the reasons that a break-up is considered impractical by some (Economist, 2017).

⁵² Open Markets Institute (2020), https://res.cloudinary.com/gcr-usa/image/upload/v1587491901/OMI_sytrjl.pdf

⁵³ In a homogenous market it would in theory be zero under the type of perfectly competitive bertrand competition that is not observed outside the textbook.

⁵⁴ See Christensen, Clayton M., Richard Alton, Curtis Rising, and Andrew Waldeck. "The New M&A Playbook." Harvard Business Review 89, no. 3 (March 2011). McKinsey research confirms that large mergers typically fail. KPMG find that just 31% of mergers increase value and just 17% increase shareholder returns, meanwhile an LEK study shows 60% of mergers destroy shareholder value.

⁵⁵ In additions, as Bryan & Hovenkamp (2019) note, if a future entrant might also be acquired then such future entry might not arrive to resolve the loss of competition. For example, future entrants might also be acquired in order to perpetuate the incumbents reputation for fighting entry, and those acquisitions might also be permitted as a result of a preference for under-enforcement.

⁵⁶ Lear (2016), https://www.learlab.com/wp-content/uploads/2016/03/lcn_merger_screen_price_pressure_test_1360694100.pdf

⁵⁷ See, Charley Connor, *Focus on merger control to combat big tech, enforcers urge*, 3 March 2020, Global Competition Review <https://globalcompetitionreview.com/article/1215869/focus-on-merger-control-to-combat-big-tech-enforcers-urge>

⁵⁸ Bourreau & De Stree, CERRE, *Big Tech Acquisitions: Competition & Innovation Effects and EU Merger Control*, February 2020, page 15.

⁵⁹ European Commission, Replies to the consultation, https://ec.europa.eu/competition/consultations/2016_merger_control/index_en.html

⁶⁰ CMA contribution to the Evaluation of procedural and jurisdictional aspects of EU Merger Control, 13 January 2017 https://ec.europa.eu/competition/consultations/2016_merger_control/united_kingdom_competition_and_markets_authority_en.pdf

⁶¹ Summary of replies to the Public Consultation on Evaluation of procedural and jurisdictional aspects of EU merger control, July 2017, Page 6 <https://ec.europa.eu/competition/consultations/2016_merger_control/summary_of_replies_en.pdf>

⁶² For further detail, see 2018 joint guidance on transaction value threshold: https://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Leitfaden/Leitfaden_Transaktionsschwelle.pdf?__blob=publicationFile&v=2

⁶³ In Austria, the transaction value threshold is €200 million.

⁶⁴ Martin Sauermann, *The Transaction Value Threshold in Germany – Experiences with the New Size of Transaction Test in Merger Control*, 8 October 2019 <https://www.competitionpolicyinternational.com/the-transaction-value-threshold-in-germany-experiences-with-the-new-size-of-transaction-test-in-merger-control/>

⁶⁵ Ibid.

⁶⁶ Ibid.

⁶⁷ See paragraph 9 of the decision: https://ec.europa.eu/competition/mergers/cases/decisions/m8994_257_3.pdf European Commission, Case M.8994 Microsoft/GitHub, 2018

⁶⁸ Furman review, page 94.

⁶⁹ Furman review, page 139.

⁷⁰ ACCC, Digital Platforms Inquiry- Final report, page 30, <https://www.accc.gov.au/system/files/Digital%20platforms%20inquiry%20-%20final%20report.pdf>

⁷¹ See, Chapter 3, Article 7 of the proposed bill, http://www.assemblee-nationale.fr/dyn/15/textes/l15b2701_proposition-loi

⁷² See the third main principle of the bill (« Lutter contre les acquisitions dites "prédatrices »), *Proposition de loi visant à garantir le libre choix du consommateur dans le cyberspace*, <http://www.senat.fr/dossier-legislatif/pp19-048.html>

« Objet du texte... 3. Lutter contre les acquisitions dites "prédatrices" »

L'article 7 propose à cet effet de permettre à l'Autorité de la concurrence d'évoquer les acquisitions effectuées par les entreprises systémiques. Celles-ci auraient l'obligation d'informer l'Autorité de toute acquisition, selon un mécanisme inspiré de ce qui existe en Norvège depuis 2014. »

⁷³ Stigler report, page 33.

⁷⁴ Stigler report, page 111.

⁷⁵ Ibid.

⁷⁶ Autorité de la concurrence, Réforme du droit des concentrations et contrôle ex post, September 2018, https://www.autoritedelaconcurrence.fr/sites/default/files/note_controle_expost.pdf

⁷⁷ See page 2 of the French Competition Authority's Public Consultation Document on ex-post review: https://www.autoritedelaconcurrence.fr/sites/default/files/note_controle_expost.pdf

⁷⁸ See, DAF/COMP/WP3 (2014) 1, page 8 (paragraph 16).

⁷⁹ For instance, the merger of Evanston & Highland Park Hospitals was investigated 7 years after completion. This led to a behavioural remedy in which the two merging hospitals were required to establish separate negotiating teams for each hospital to enable negotiation with insurers, and gave insurers the option to negotiate with the hospitals separately or jointly. The FTC noted that while structural remedies were preferred for such violations, it did not uphold the order of divestiture, given by the Administrative Law Judge, given the time that had elapsed since the deal, their integration and the likely costs for the parties. This therefore demonstrates the difficulty in applying effective remedies after an ex-post review.

References

- Aranze, J, Germany publishes draft amendment to its competition law, 24 January 2020, Global Competition Review.
- Aranze, J, FTC seeks hot docs to assess nascent competition, 24 January 2020, Global Competition Review.
- Argentesi, E., Buccirosi, P., Calvano, E., Duso, T., Marrazzo, A. and S. Nava (2019). “Merger Policy in Digital Markets: An Ex-Post Assessment,” CESifo Working Paper No. 7985.
- Australian Competition and Consumer Commission, Digital Platforms Inquiry: Final Report, June 2019.
- Baker, Farrell, Gavil, Gaynor, Kades, Katz, Kimmelman, Melamed, Rose, Salop, Scott Morton and Shapiro, 2020, Joint Response to the House Judiciary Committee on the State of Antitrust Law and Implications for Protecting Competition in Digital Markets <https://equitablegrowth.org/wp-content/uploads/2020/04/Joint-Response-to-the-House-Judiciary-Committee-on-the-State-of-Antitrust-Law-and-Implications-for-Protecting-Competition-in-Digital-Markets.pdf>
- Baumol, W. J. (1982), “Contestable Markets: An Uprising in the Theory of Industry Structure” American Economic Review, Vol. 72, No. 1, pp. 1-15 (March), https://www.jstor.org/stable/1808571?origin=JSTOR-pdf&seq=1#metadata_info_tab_contents.
- Bourreau, Marc and De Stree, Alexandre, Issue Paper, “Big Tech Acquisitions – Competition and Innovation Effects and EU Merger Control” Centre on Regulation in Europe, February 2020
- Bundeskartellamt and Bundes Wettbewerbs Behörde, Guidance on Transaction Value Thresholds for Mandatory Pre-merger Notification (Section 35 (1a) GWB and Section 9 (4) KartG) English translation, July 2018 < https://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Leitfaden/Leitfaden_Transaktionssschwelle.pdf?__blob=publicationFile&v=2>
- Business at the OECD, 2019, Barriers to Exit – Note by BIAC, [https://one.oecd.org/document/DAF/COMP/WD\(2019\)94/en/pdf](https://one.oecd.org/document/DAF/COMP/WD(2019)94/en/pdf)
- Craig, E, France’s senate wants to mandate notification of big tech deals, 24 January 2018, Global Competition Review.
- Crémer et al., Competition policy for the digital era (April 2019): <https://ec.europa.eu/competition/publications/reports/kd0419345enn.pdf>
- Cunningham, C., Ma, S. and F. Ederer (2018). “Killer Acquisitions,” https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3241707
- DOJ & FTC (2010), Horizontal Merger Guidelines, <https://www.justice.gov/atr/horizontal-merger-guidelines-08192010#6d>.
- European Commission (2016), EU merger control and innovation, https://ec.europa.eu/competition/publications/cpb/2016/2016_001_en.pdf.
- European Commission, Consultation on Evaluation of procedural and jurisdictional aspects of EU merger control, accessed 27 February 2020 < https://ec.europa.eu/competition/consultations/2016_merger_control/index_en.html>

- European Commission, “Summary of replies to the Public Consultation on Evaluation of procedural and jurisdictional aspects of EU merger control”, July 2017
https://ec.europa.eu/competition/consultations/2016_merger_control/summary_of_replies_en.pdf
- European Commission (2015), A Review of Merger Decisions in the EU: What can we Learn from Ex-Post Evaluations?, <https://ec.europa.eu/competition/publications/reports/kdo115715enn.pdf>.
- European Commission (2004), Guidelines on the Assessment of Horizontal Mergers under the Council Regulation on the Control of Concentrations between Undertakings, <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52004XC0205%2802%29>.
- Fletcher, A. (2020), video contribution to the OECD roundtable on Start-ups, killer acquisitions and merger control. <http://www.oecd.org/daf/competition/start-ups-killer-acquisitions-and-merger-control.htm>
- Furman, J., D. Coyle, A. Fletcher, D. McAuley and P. Marsden (2019). Unlocking digital competition. Report of the Digital Competition Expert Panel.
- Gautier, A. and G. Lamesch (2020). “Mergers in the Digital Economy,” Working Paper.
- Kamepalli, Rajan & Zingales, Stigler Center, Kill Zone, New Working Paper Series No.39, November 2019
- Lear, Ex-post Assessment of Merger Control Decisions in Digital Markets (June 2019):
<https://www.gov.uk/government/publications/assessment-of-merger-control-decisions-in-digital-markets>
- Lécuyer, T, Digital conglomerates and killer acquisitions – A discussion of the competitive effects of start-up acquisitions by digital platforms, *Concurrences* N 1-2020, pp.42-50.
- Manne & Auer (2020), *Truth on the Market*, 2020
- Motta, M. & Peitz, M. (2020) <https://www.crctr224.de/en/research-output/discussion-papers/discussion-paper-archive/2020/big-tech-mergers-massimo-motta-martin-peitz>
- McSweeney, T., O’Dea, B, “Data, Innovation, and Potential Competition in Digital Markets – Looking Beyond Short-Term Price Effects in Merger Analysis”, *Competition Policy International*, 19 February 2018 <https://www.competitionpolicyinternational.com/data-innovation-and-potential-competition-in-digital-markets-looking-beyond-short-term-price-effects-in-merger-analysis/>
- OECD (2020a) *Conglomerate Mergers*.
- OECD (2020b) *Line of Business Restrictions*. <http://www.oecd.org/daf/competition/line-of-business-restrictions-as-a-solution-to-competition-concerns.htm>
- OECD (2020c), *Merger control in Dynamic Markets*, <http://www.oecd.org/daf/competition/merger-control-in-dynamic-markets-2020.pdf>
- OECD (2020d), *Competition issues in Labour markets*,
<http://www.oecd.org/daf/competition/competition-in-labour-markets-2020.pdf>
- OECD (2020e), *Competition Trends*
- OECD (2019a), *Vertical Mergers in the technology, media and telecom sector*
- OECD (2019b), *Barriers to Exit*, [https://one.oecd.org/document/DAF/COMP\(2019\)15/en/pdf](https://one.oecd.org/document/DAF/COMP(2019)15/en/pdf)
- OECD (2018a), *Non-price effects of mergers*, <http://www.oecd.org/daf/competition/non-price-effects-of-mergers.htm>
- OECD (2018b), *Summary of discussion, Hearing on Market Concentration*
- OECD (2018c), *Market Concentration*
- OECD (2016), *Local Nexus and jurisdictional thresholds in merger control*,
<https://www.oecd.org/daf/competition/jurisdictional-nexus-in-merger-control-regimes.htm>
- OECD (2014) *Investigations of consummated and non-notifiable mergers*,
<http://www.oecd.org/daf/competition/investigations-consummated-non-notifiable-mergers.htm>

- OECD (2005), Recommendation of the OECD Council on Merger Review, as approved by Council on 23 March 2005 C(2005)34 - C/M(2005)7/PROV
- Parts, S, DOJ presses Sabre and Farelogix on deal rationale, 29 January 2020, Global Competition Review USA News.
- Parts, S, Travel agency execs laud Sabre deal, 3 February 2020. Global Competition Review USA News.
- Report of the Digital Competition Expert Panel, Unlocking digital competition (March 2019): <https://www.gov.uk/government/publications/unlocking-digital-competition-report-of-the-digital-competition-expert-panel>
- Sauermann, Martin, “The Transaction Value Threshold in Germany – Experiences with the New Size of Transaction Test in Merger Control” Competition Policy International, 8 October 2019 < <https://www.competitionpolicyinternational.com/the-transaction-value-threshold-in-germany-experiences-with-the-new-size-of-transaction-test-in-merger-control/>>
- Sénat, Libre choix du consommateur dans le cyberspace (texte déposé au sénat – première lecture exposé des motifs, 10 Octobre 2019.
- Stigler Center for the Study of the Economy and the State, Report of the Committee for the Study of Digital Platforms (May 2019): <https://research.chicagobooth.edu/stigler/media/news/committee-on-digital-platforms-final-report>
- The Economist, 26 October 2018, “American tech giants are making life tough for startups”.
- Valletti, T, (2018) Après moi, le déluge! Tech giants in the digital age, CRA, December 2018 <https://ecp.crai.com/wp-content/uploads/2018/12/Tommaso-Valletti-2018.pdf>
- Werden, Gregory J., and Luke M. Froeb. “The Entry-Inducing Effects of Horizontal Mergers: An Exploratory Analysis.” The Journal of Industrial Economics, vol. 46, no. 4, 1998, pp. 525–543. JSTOR, www.jstor.org/stable/117502.
- Wright, J.D. Note on Market Concentration - OECD, June 2018 [https://one.oecd.org/document/DAF/COMP/WD\(2018\)69/en/pdf](https://one.oecd.org/document/DAF/COMP/WD(2018)69/en/pdf)
- Yun, C. 2019, prepared statement to the United States Senate Committee on the Judiciary Subcommittee on Antitrust, Competition Policy, and Consumer Rights Hearing on “Competition in Digital Technology Markets: Examining Acquisitions of Nascent or Potential Competitors by Digital Platforms” <https://www.judiciary.senate.gov/imo/media/doc/Yun%20Testimony.pdf>