RBB | Economics

December 2020

How Merger Control Rolls: A Response to Caffarra, Crawford and Valletti

Simon Bishop and Stephen Lewis[1]

Introduction

In a recent paper, *How tech rolls: Potential competition and 'reverse' killer acquisitions*, Caffarra, Crawford and Valletti (hereafter, "CCV") claim that there has been massive underenforcement in merger control over the last 20 years.[2] The authors place particular emphasis on the so-called "reverse killer acquisition" theory of harm: the idea that large tech firms favour "buying" instead of expending effort in rival innovation and that such a commercial strategy is invariably detrimental for consumers. A key premise underpinning CCV's claim is the view that (in all but a few special cases) consumers and society are better off when innovative firms are not permitted to merge. In consequence, CCV propose a significant change in merger control; namely, that, at least for firms held to be "super dominant", *any* merger would be presumed to be anticompetitive. CCV believe that it's "*time to have some false positives after twenty years of false negatives*" and wish to see this goal achieved by lowering the standard and/or shifting the burden of proof for finding adverse competitive effects.

Given that the proposed policy represents a significant departure for how mergers are assessed, the economic and evidentiary robustness of the arguments underpinning this proposal ought to be carefully examined. With this in mind, this paper provides a summary and critique of the arguments presented by CCV. In particular, we address, in turn, the following points with reference to the approaches taken by competition agencies in Europe.

First, how justified is the premise that consumers and society are generally better off when innovative firms are not permitted to merge? We explain that there are several reasons why this broad conclusion is not warranted, particularly in relation to the "build vs. buy" decisions in tech markets that are at the centre of "reverse killer acquisition" concerns.

Second, how justified are the claims of CCV that competition authorities have traditionally been unable or unwilling to consider theories of harm relating to potential competition? As we explain, such claims are not merited. Competition authorities have been considering the likely competitive impact of mergers that affect potential competition for decades and have shown themselves willing and able to prohibit on this basis.

Third, what are the costs and benefits of reversing the burden of proof? CCV provide no assessment of this issue, and, in particular, they fail to take seriously the significant costs to the dynamic process of competition that over-enforcement entails. Furthermore, if one were to adopt CCV's proposal, how could a firm alleged to be "super dominant" overturn the presumption of anti-competitive harm?[3] The absence of a clear framework for that analysis provides a clear indication that CCV's proposal is not founded on a careful economic assessment and raises serious risks of over-enforcement with concomitant adverse effects for consumers.

1 Simon Bishop and Stephen Lewis are partners at RBB Economics. Stephen Lewis advises Google. Simon Bishop does not. We are grateful for comments from Bianca Buzatu, Fabien Curto Millet, Jordan Ellison, Thomas Graf, Nick Levy, Henry Mostyn, Nicolas Petit, Laura-Lucia Richter and numerous colleagues at RBB Economics. All views expressed are of the authors and not of RBB Economics. We have received no financial recompense for authoring this article.

2 'How tech rolls': Potential competition and 'reverse' killer acquisitions, Cristina Caffarra, Gregory Crawford, Tommaso Valletti, 11 May 2020, available at https://voxeu.org/content/how-tech-rolls-potential-competition-and-reverse-killer-acquisitions.

3 This is especially problematic since we don't have a good economic or legal definition of what constitutes "super dominance". It is worth noting as a practical matter that under CCV's proposals merger assessment would have to involve an assessment of "super dominance" as well as an assessment of the competitive effects of the merger to determine the incidence of the burden of proof. This would have to be a formal (appealable) step in the process. We do not discuss the issue further in this paper.

Fourth, we provide a commentary on CCV's analysis of both "killer acquisitions" and "reverse killer acquisitions". In particular, we draw attention to CCV's so-called "poster child" cases. These are cases that *were* investigated by competent competition authorities and cleared, and, in at least one case, after an explicit evaluation of the supposedly novel "reverse killer acquisition" theory of harm. Of course, competition authorities can make mistakes. But CCV provide no analysis of where the relevant competition authorities erred, or why, if errors occurred, a change in the substantive test is required to mitigate similar errors going forward.

In summary, policy proposals as significant as those presented in *How Tech Rolls* carry a high evidentiary burden, particularly given that they run counter to recommendations in recent in-depth studies of the tech sector.[4] CCV do not come close to meeting that evidentiary burden. On that basis, the policy proposals presented by CCV can and should be dismissed.

A summary of CCV's *How Tech Rolls*

CCV note that competition authorities are paying more attention than ever to mergers that, while not resulting in an immediate loss of competition, might still give rise to competition concerns by reducing potential competition. According to CCV, greater attention to these theories of harm is overdue and this, they argue, is particularly true for merger involving "*large tech platforms with enormous capabilities to expand their reach into multiple adjacent markets through the 'roll up' of smaller/nascent firms*".

CCV acknowledge that current economic thinking recognises that conglomerate mergers are generally pro-competitive. However, in their view, a much more cautious, interventionist approach should now be taken by competition authorities who should *"…'lean in' and aggressively protect innovation in the technology sector ("a huge and growing sector of the economy")."* In their view, mergers by "super-dominant" firms should be required "*to proactively show what they do and why consumers would necessarily benefit.*".

CCV's policy recommendation reflects the following two claims. First, competition authorities have been unwilling or unable to consider theories of harm involving potential competition. CCV cite *Facebook/WhatsApp*, *Facebook/Instagram* and *Google/DoubleClick* as their poster children for support of this argument. Furthermore, CCV argue that, although we should be concerned about large firms buying up potential new entrants (so-called killer acquisitions), we should be more concerned about "reverse killer acquisitions" whereby a merger results in the loss of innovation effort on the part of the large established firm with alleged inevitable concomitant adverse effects for competition in the target firm's market. According to CCV, "reverse killer acquisitions" are empirically more prevalent than "killer acquisitions", yet to date have been regarded as only benign.[5]

Second, CCV argue that a reversal in the burden of proof is required because it is difficult, in practice, for competition authorities to provide convincing evidence that mergers reduce efforts to innovate. But according to CCV, a lack of evidence to substantiate anticompetitive effects in specific cases should not be a barrier to more interventionist merger enforcement.

Do mergers always reduce innovation?

The key premise underpinning CCV's policy proposal is the belief that all mergers involving "innovative firms" reduce efforts to innovate, resulting in consumer harm. Specifically, CCV make three claims.

First, according to CCV "*the general conclusion of the academic literature is that consumers and society are better off when innovative firms are not permitted to merge*".

Second, "*the size and overwhelming dominance of some tech platforms is already thought to have dampening effects on the 'invest for buyout' incentive that can provide one pro-innovation justification for acquisitions, at least around the 'core businesses' of these platforms*".

Third, *"the welfare effect of foregoing one of two innovation efforts may be sizeable if the two were to turn into real competitors"*.

Let us consider each claim in turn.

4 As we discuss further below, CCV's policy proposals are at odds with the recommendations of two major reports on the digital sector: Digital Competition Expert Panel (chaired by Professor J. Furman), Unlocking Digital Competition (March 2019), available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/785547/unlocking_digital_competition_furman_review_web.pdf ("Furman Report"); and J. Crémer, Y-A de Montjoye and H. Schweitzer, Competition Policy for the digital era (Final Report, 29 March 2019), available at https://ec.europa.eu/competition/publications/reports/kd0419345enn.pdf ("EU Special Advisors' Report").

5 CCV state: "*To date, this has been regarded as only benign: no overlap, no obvious foreclosure of existing competitors, quick time to market, and bonanza for the target.*"

"Consumers are better off when innovative firms are not permitted to merge"

In effect, CCV argue that there should be no mergers between innovative firms. In their opinion, all such mergers, except for some special cases, are anticompetitive. But the academic literature provides no such "general conclusion", neither for horizontal mergers nor for non-horizontal mergers between firms engaged in complementary activities. It is important to note the title of the Valletti paper that CCV cite in support of their argument: "*Innovation Considerations in **Horizontal** Merger Control*" [Emphasis added]. In *Dow/DuPont* the European Commission ("Commission") assessed whether the merging firms were active in the same innovation spaces, and a finding that the parties were close competitors in the same innovation spaces formed an important part of its finding of anti-competitive effects. It is by no means clear that the Commission would have reached the same conclusion had the merging parties not been active in the same innovation spaces, but instead had largely different core competences (as in a typical "build vs. buy" scenario).

But even in the context of a horizontal merger, CCV acknowledge that when an innovation gives rise to a demand-expanding effect that cannot be internalised or there are merger-specific efficiency gains, the "robust conclusion" upon which CCV rely doesn't hold. This important point is glossed over in CCV but the rationale is unpacked a little more in another Valletti article: *"…a merger may increase appropriability, by internalizing positive knowledge spillovers between the merging parties, thus enhancing their incentives to innovate. Alternatively, a merger may bring together complementary R&D assets or lead to higher productivity in R&D by enabling cost efficiencies. Sufficient innovation efficiencies overturn the reduction in innovation due to market power, and ultimately also offset the negative impact of a merger on consumer welfare."* [6]

Given this logic, it seems reasonable to ask whether tech mergers might increase innovation incentives by either increasing appropriability or giving rise to innovation efficiencies.

Considering the question of **appropriability** first, we can learn from the Commission's assessment of this issue in *Dow/DuPont*. As the *Dow/DuPont* decision correctly acknowledges, "*some of the economic literature has noted that more concentration may **enhance** innovation if a lower number of independent competitors also implies a **lower risk of imitation** and thus higher appropriability*".[7] The Commission as a result considered empirical evidence on the strength of Intellectual Property Rights (IPRs) in the markets in question in detail. In that case, the Commission considered that strong IPRs meant that ability of each firm to appropriate the benefits of innovation was already high pre-merger, implying that the merger would be unlikely to increase appropriability.[8] Presumably, the Commission's reasoning in *Dow/DuPont* would have looked very different in an environment with weak IPRs (or else it would not have needed to assess the strength of IPRs in the first place).

So, does the existence of strong IPRs apply to tech markets? Not really. To take some obvious examples, it is widely reported that Facebook copies Snapchat's innovations,[9] and Google and Apple are constantly borrowing ideas from each other's operating system.[10] In short, there are demand-expanding innovations that cannot be internalised all over the place in the tech industry. This means that insights from models that assume strong IPRs cannot credibly be carried over into the tech industry, where the opposite conclusions might hold.

6 Horizontal Mergers and Product Innovation, Giulio Federico, Gregor Langus and Tommaso Valletti, February 2018.

7 Dow/DuPont Decision, para 2064. The Decision also states (at Annex 2, para 164) "*Appropriability is an important feature of any competitive assessment of innovation which, according to Shapiro (2012), attempts to account for "the extent to which innovators can appropriate the social benefits their innovation have caused." Shapiro (2012) continues by stating that "[t]he conditions of appropriability can greatly affect innovation incentives.*" Shapiro (2012), "Competition and innovation. Did Arrow hit the bull's eye?", chapter 7 of The Rate and Direction of Inventive Activity Revisited, University of Chicago Press.

8 "*…given the strong Intellectual Property Rights (IPRs) in the crop protection industry, the original innovator can be expected to reap the benefits from its innovation, by preventing rivals from imitating the successful innovation (that is, appropriability is high)*". Dow/DuPont Decision, para 2001.

9 "*Here are all the times Facebook has copied Snapchat so far*", By Alex Heath May 27, 2017, Business Insider, available at https://www.businessinsider.com/all-the-times-facebook-copied-snapchat-2017-5?r=US&IR=T

10 "*All the new features iOS 14 borrows from Android: Some of the best new iOS features might look familiar*", By Chaim Gartenberg, Jun 23, 2020, The Verge, available at https://www.theverge.com/21299641/apple-ios-14-vs-android-11-features-beta-iphone-google

And what about **efficiencies**? Are these really a special case in tech mergers as CCV suggest? That is not the view of the EU Special Advisors' Report.[11] More generally, is it really that unreasonable to assume that if you put two or more innovative people in a room together the output might be better than the sum of its parts? According to CCV, society would have been better off if Caffarra, Crawford and Valletti had not cooperated in producing *How Tech Rolls* and instead competed to see who could write the most insightful and original piece on potential competition and the approach competition policy should take in this area. Sure, there would have been wasteful duplicative efforts but wouldn't the spur of competition have given rise to an even better article? Hasn't their collaboration harmed society? And is this not true for all academic research? Of course not! Indeed, bringing together innovative minds can have benefits in entirely unpredictable ways. Who could have predicted that DeepMind's AI research would have reduced Google's Data Centre cooling bill by 40%?[12]

So there are a number of problems with the applicability of the literature cited by CCV to argue that tech mergers necessarily reduce innovation: i) CCV's claims extend to cases of innovating complementors not only innovating substitutors (which goes beyond the cited academic literature); ii) innovation in tech can be demand expanding with positive externalities that are not internalised; and iii) innovation enhancing efficiencies may be far from a special case.

Would stricter merger enforcement encourage more investment in start-ups?

CCV claim that there is a reduced willingness of venture capitalists to provide funding for start-ups that replicate the main functionalities and/or could be direct replacements to those offered by dominant tech platform. Of course, raising money to develop a product to compete with one that already exists is always going to be problematic. This is true for any industry. But it is hard to see as a general matter how stricter merger enforcement would alleviate this issue and encourage more funding for start-ups.[13] On this point CCV are clearly in opposition to the Furman Report,[14] the EU Special Advisors' Report,[15] and the original paper on "killer acquisitions".[16,17]

Welfare effects

CCV argue that *"the welfare effect of foregoing one of two innovation efforts* ***may be sizeable*** *if the two were to turn into real competitors. The 'prize' is larger (and potentially huge) in cases where the target* ***would have been a real substitute****, allowing us to get away from monopoly/super dominance in the 'primary' market"* (emphasis added).

11 "*In many cases, such acquisitions will be pro-competitive. Generally speaking, the search for the optimal boundaries of the firm – whether by way of internal or external growth – is an important part of the competitive process. In the digital field, mergers between established firms and start-ups may frequently bring about substantial synergies and efficiencies*", EU Special Advisors' Report, page 111.

12 "DeepMind AI Reduces Google Data Centre Cooling Bill by 40%", DeepMind Blog, 20 July 2016, available at https://deepmind.com/blog/article/deepmind-ai-reduces-google-data-centre-cooling-bill-40.

13 The working paper CCV cite is certainly an interesting contribution but it is far from clear how generalisable might be the mechanism at the heart of its result that high-priced acquisitions of entrants by an incumbent can, in fact, discourage investment. The authors of this paper themselves recognise that "*the idea that acquisitions discourage new investments is at odds with a standard economic argument*", and that, "*it would be premature to draw any policy conclusion on antitrust enforcement based solely on our model and our limited evidence*". Even taking the model at face value, the authors state "*the social optimum will not be an outright prohibition or complete laissez faire, but some middle-of-the road policy, which will trade off the ex-post welfare losses produced by merger restrictions against the ex-ante gains in investments in innovation*". Kill Zone, Sai Krishna Kamepalli, Raghuram G. Rajan, and Luigi Zingales, March 2020, Working Paper, No. 2020-19.

14 "*…being acquired is also an important exit strategy for technology start-ups, providing significant incentive for investors to provide funding to risky projects and support market entry*", Furman Report, para 3.102.

15 "*…the chance for start-ups to be acquired by larger companies is an important element of venture capital markets: it is among the main exit routes for investors and it provides an incentive for the private financing of high-risk innovation*", EU Special Advisors' Report, p.111.

16 Even the original paper on "killer acquisitions" recognised that the prospect of acquisition could increase *ex-ante* innovation incentives. It noted that "*despite the ex-post inefficiencies of killer acquisitions and their adverse effect on consumer surplus, the overall effect on social welfare is ambiguous because these acquisitions may also increase ex-ante incentives for the creation of new drug projects*" and "*because killer acquisitions may motivate ex ante innovation the overall effect of such acquisitions on social welfare remains unclear*". Cunningham, C., Ederer, F., and S. Ma (2020), "Killer Acquisitions", Working Paper LBS & Yale, pp. 6 and 51, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3241707.

17 Other references include the following. Hoffman, former Director of FTC's Bureau of Competition, Competition in Digital Technology Markets: Examining Acquisitions of Nascent or Potential Competitors by Digital Platforms, Statement of the FTC before the Judiciary Subcommittee on Antitrust, Competition Policy and Consumer Rights (24 September 2019), available at: https://www.judiciary.senate.gov/imo/media/doc/Hoffman%20Testimony2.pdf: "*the sale to an incumbent represents a valuable exit strategy for startups that encourages investment and innovation*". D. Sokol, 'Vertical Mergers and Entrepreneurial Exit' (2018) 70 Florida Law Review 1357, available at: http://www.floridalawreview.com/wp-content/uploads/Sokol.pdf: "*merger policy that would unduly restrict large tech firms from undertaking acquisitions […] would hurt incentives for innovation in the economy by chilling business formation in start-ups*".

In other words, with "killer acquisitions" a company that is dominant in what they call the "primary" market snuffs out a potential entrant which, had it entered successfully, might have delivered the "prize" of competition to the dominant firm. This is a coherent and long-established theory of harm that competition authorities already take into account, and not just in tech. Moreover, as CCV's own words demonstrate, the lost 'prize' is a possibility, not an inevitability.[18] As such, CCV significantly undermine their own arguments for moving away from case-by-case assessment to blanket presumptions.

But the "reverse killer acquisition" concern is about something entirely different – loss of potential competition in a "secondary market" where there is no dominance (and the acquirer doesn't even yet have a product). There is no reason to believe *a priori* that the acquirer's entry into the acquiree's market (even assuming that (a) this was being considered and (b) it would be successful) is necessary to ensure the acquiree's market is subject to effective competition. So this risk reward logic does not carry over from "killer acquisitions" to "reverse killer acquisitions" very well at all. In addition, if the acquiree is doing something hard to replicate, then why should we have faith the acquirer will succeed when it tries? If the acquiree is doing something easy to replicate, why shouldn't we expect others to reproduce it? We are not saying this means there is never any place for potential competition concerns in the acquiree's market. But all this points again to a need for case-specific analysis rather than a presumption.

Do competition authorities consider theories of harm related to potential competition?

CCV give the impression that competition authorities have traditionally been either unwilling or unable to consider the harm arising from mergers between potential competitors.[19] This is simply not true. Both potential competition and innovation concerns are actively assessed under current merger control.

As set out in the EC Horizontal Merger Guidelines, potential competition concerns arise under two conditions.[20] First, the threat of entry by one merging party into a market served by the other merging party exerts an important influence on the outcomes in that market. Second, other potential competitors could not maintain sufficient competitive pressure after the merger.

The Commission has enforced on the basis of potential competition concerns on a number of Phase II cases in the past, as the following examples confirm.

- In ENI/EDP/GDP, the Commission found that a merger between the Portuguese electricity incumbent (EDP) and gas incumbent (GDP) would reinforce a quasi-monopoly position through the elimination of a potential entrant into both markets. Each party was deemed to be uniquely well placed to enter the other party's market due to specific advantages they possessed relative to other potential entrants.
- In DONG/Elsam/Energi E2, the Commission found that the merger would have reinforced the dominant position of DONG, the Danish state-owned gas incumbent, due to the removal of actual and potential competition from electricity suppliers Elsam, E2, NESA and KE. It is noteworthy that in this case, the Commission did not consider evidence of E2's and Elsam's intention to enter the relevant market as being necessary for such a finding, owing to commercial incentives that Elsam would have to do so.
- In Omya/Huber PCC, the Commission found that the proposed acquisition by Omya of Huber's on-site precipitated calcium carbonate business would have removed a potential entrant capable of supplying the heartland of the paper industry in southern Finland. The Commission found that Huber would have sufficient experience and ability to compete effectively in this market, unlike any other potential competitors.

The Commission therefore already has the tools to block a merger where it has identified a coherent theory of harm centring on a loss of potential competition.

18 It should also be noted that in many real-world situations there will be more than two firms in the innovation race. In such situations, does the loss of one innovator inevitably lead to a reduction in effort by the remaining firms? It seems unlikely. The participants in the final of the Olympic 100 metres are unlikely to run less quickly if each faces only six competitors rather than seven.

19 CVV state "*The long-held posture in traditional antitrust (assuming we could look at these cases, most of which have flown under the radar) has tended to be: "Mergers of complements? No issue. In fact, great! Integration is efficient. Potential entry is too speculative to worry about.*"

20 Similar comments apply to the US Horizontal Merger Guidelines.

As far as innovation competition is concerned, the Commission has already shown itself willing to intervene on the basis of innovation theories of harm. In a 2016 speech, European Competition Commissioner Margrethe Vestager noted that "*protecting innovation is important in our merger policy" and that "when we look at high-tech mergers, we don't just look at whether they may raise prices. We also assess whether they could be bad for innovation.*"[21] The EC's Innovation in EU Merger Control report explains that *"[t]he Horizontal Merger Guidelines expressly mention innovation as one of the criteria against which to assess the likely effects of a merger*".[22]

Regulators have assessed the prospect of harm to innovation in a number of recent cases, and have already imposed divestments on the basis of such concerns. For example:

- In GE/Alstom, the Commission found that the merger would eliminate an important independent innovator (Alstom) from the market, thereby reducing innovation pressure on the remaining competitors too.
- In Dow/DuPont, the Commission found the transaction would remove the parties' incentive to pursue ongoing parallel and future joint innovation efforts in pesticides. The parties agreed to divest, inter alia, DuPont's global R&D organisation to address the innovation concerns.
- In the Experian/ClearScore transaction, the CMA found that the proposed merger gave rise to significant competition concerns, whereby the merged entity would be less likely to innovate, potentially leading consumers to pay more for credit cards and loans. Following the referral to Phase 2, the transaction was abandoned.

These cases, amongst others, show that the EU Commission and other regulators are able to ensure that innovation analysis forms a central part of merger control. According to the Commission itself, this has "*not been based on any presumptions regarding innovation effects but relied on a meticulous, fact-based analysis*".[23]

Likely impact of reversing the burden of proof?

Importantly, it is not clear how in practice a company could rebut a presumption of anti-competitive harm relating to innovation incentives. Justifying a merger before the Commission on the basis of efficiencies has proven to be very difficult even in the typical setting where concerns centre on price increases.[24] In a setting where concerns centre on presumed and unquantified reductions in innovation incentives, the task becomes impossible.

First, compared to static cost reductions, dynamic efficiencies that improve innovation prospects are likely to be harder to prove and may occur over a longer time horizon. Second, even if the merging parties could somehow quantify the increase in the probability of successful innovations that results from merger-specific efficiencies, it is not clear how this could be sufficient to offset an unspecified presumption of reduced innovation efforts.

The difficulties may be compounded in cases where the source of potential synergies and the source of potential concerns are the same. If a firm is acquiring a complementary asset and can show that it can use it to improve its core product in some way, can the merging parties rule out the risk that the authority will be concerned that this will make it harder for others to compete with the core product? But if authorities on the one hand require firms to demonstrate efficiencies and on the other hand leave open the possibility of an "efficiency offense", that really would be creating an impossible situation for firms.

All of this would be fine if the Type 1 errors that CCV want to see more of were costless. But mergers are an important part of the dynamic competitive process. There are lots of pro-competitive rationales for mergers, even those concerning substitute products. The Furman Report states that "*the majority of acquisitions by large digital companies are likely to be either benign or beneficial for consumers, though a minority may not be*", and that "[*t]here is no need to shift away from [the current, mainstream framework for competition], or implement a blanket presumption against digital mergers, many of which may benefit consumers*" and that "[*a] presumption against all acquisitions by large digital companies is not a proportionate response to the challenges posed by the digital economy*".[25] Over-intervention therefore carries real costs to consumers. CCV do not take these costs seriously, let alone attempt to balance them against the costs of under-intervention.

21 Margarethe Vestager, 18 April 2016, Speech, Competition: The Mother of Invention, available at https://ec.europa.eu/commission/2014- 2019/vestager/announcements/competition-mother-invention_en.

22 Carles Esteva Mosso, 12 April 2018, Speech, Innovation in EU Merger Control, available at http://ec.europa.eu/competition/speeches/text/sp2018_05_en.pdf.

23 Carles Esteva Mosso, 12 April 2018, Speech, Innovation in EU Merger Control, available at http://ec.europa.eu/competition/speeches/text/sp2018_05_en.pdf

24 The Commission has never justified the clearance of a merger that it would otherwise have blocked purely on the basis of efficiencies.

25 The Furman Report, para 3.102, page 12 and para 3.103.

Killer acquisitions and reverse killer acquisitions

Killer acquisitions

CCV repeat the assertion that there have been a large number of consummated deals "that went below the radar". It is not clear what CCV mean by "under the radar". If they are referring to cases that fell below jurisdictional review thresholds this is potentially a fair concern. But it is far from clear that this is a serious concern in practice. CCV provide no example of any merger that they consider should have been reviewed but was not. There is simply no convincing evidence to support CCV's claim that *"the notion that we have not vetted hundreds of deals has driven a diffuse concern that we have missed cases where the deal 'killed' the 'next big thing,' i.e. a serious challenger that could have potentially emerged out of one or more of these targets*." Indeed, after considering this issue in some detail, the EU Special Advisors' Report recommended no change to EC merger thresholds.[26]

If CCV are referring to cases that were reviewed, then, as discussed above, competition authorities have the tools to consider and do consider potential competition concerns. So what CCV must mean is that the authorities have got their competitive assessment wrong.

However, CCV fail to engage in a substantive economic discussion and instead assert that "*we do know ex post that there have been a few spectacular misses*". We assume that CCV are referring to the "poster children" again, Facebook/Instagram, Facebook/WhatsApp and Google/DoubleClick. But in what way were these cases "spectacular misses"? CCV provide no discussion of how the relevant competition authorities got it wrong, rather noting that testing for 'killer acquisitions', even *ex post*, remains difficult. But if that is true, how do CCV *know* that the authorities got these cases wrong?[27] Further, if the authorities have made errors of under-enforcement, do these failures really necessitate a change in the substantive legal test?

Take Facebook's acquisition of Instagram. Facebook bought Instagram for around $1 billion in April 2012, when Instagram was less than two years old and had zero revenues. By December 2014, Citigroup analysts considered that Instagram was worth $35 billion,[28] and less than four years later, Bloomberg estimated that Instagram was worth more than $100 billion,[29] 100 times what Facebook paid for it. Taking these valuations as given, how did Facebook manage to buy Instagram for as little as $1billion? Were Instagram's owners stupid to sell at that price? Were they incredibly impatient? Or, more likely, was Instagram's success in part due to Facebook's acquisition and even Instagram's owners thought there was a low probability of this kind of success absent the acquisition at the time they sold? It should also be noted that in its *ex post* study conducted on behalf of the UK CMA (the report is favourably cited by CCV), LEAR attempted to address whether specific cases, like Facebook/Instagram, were wrongly decided or produced negative outcomes. In relation to Facebook/Instagram, the LEAR report states "*Instagram's growth has significantly benefitted from the integration with Facebook: [...] Instagram's success [..] has likely benefitted from Facebook's guidance and expertise*,"[30] and its conclusion on whether Facebook/Instagram produced negative outcomes for consumers is considerably more measured compared to the certainty of competition concerns suggested by CCV.[31] Of course, we cannot rule out that consumers might have been better off absent Facebook's acquisition of Instagram. But there is no basis for a strong view that consumers have definitely been made worse off, and particularly so if that view is predicated on the belief that Instagram would have enjoyed equivalent success absent the acquisition.

26 For a detailed discussion of this issue, see "*Reforming EU merger control to capture 'killer acquisitions' – the case for caution*", Levy, Nicholas, Mostyn, Henry and Buzatu, Bianca, Competition Law Journal, Volume 19, Issue 2, July 2020.

27 See also the view of current Chief Competition Economist, Pierre Regibeau: "*There's an idea that for a number of acquisitions by large platforms, had we known what those acquisitions might have turned into, maybe we should have blocked them despite the fact that we didn't have jurisdiction… That's a lot of ifs, mights and shoulds… I am not totally convinced that we have a problem*," MLex, Digital mergers don't deserve "knee-jerk" suspicion, Regibeau says, 20 February 2020.

28 See "Instagram Worth $35 Billion, Facebook Stock $91, Citi Says", Forbes, 19 December 2014 available at https://www.forbes.com/sites/steveschaefer/2014/12/19/instagram-worth-35-billion-facebook-stock-91-citi-says/

29 See "Instagram Is Estimated to Be Worth More than $100 Billion", Bloomberg, 25 June 2018, available at https://www.bloomberg.com/news/articles/2018-06-25/value-of-facebook-s-instagram-estimated-to-top-100-billion.

30 LEAR, Ex-post Assessment of Merger Control Decisions in Digital Markets (Final Report, 9 May 2019), available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/803576/CMA_past_digital_mergers_GOV.UK_version.pdf (the "LEAR Report"), para II.83.

31 "*Finally, whether the decision has ultimately harmed consumers also depends on the benefits accrued through the merger, which may have countervailed anti-competitive effects. Being able to monitor consumers' behaviour on its platform and on Instagram, Facebook can effectively target advertising and reduce inefficient ads duplications on its platforms. This may have generated benefits to consumers, which may have not arisen in the absence of the merger. These efficiencies seem also to be merger-specific, and it is difficult to assume that they would have arisen in a counterfactual scenario where Instagram was not acquired by Facebook or another social network.*", LEAR Report, para II.84.

We also have to be open to the possibility that Facebook/Instagram was a genuine under enforcement error (i.e. it might have been wrongly decided based on information available at the time). If a hypothetical phase II review of Facebook/Instagram in 2012, that never actually took place, would have uncovered documents setting out Instagram's plan to develop social networking functionality to challenge Facebook, growth projections setting out a predicted increase from 50 million active users in 2012 to 1 billion active users by 2018, and Facebook internal documents identifying Instagram as an important competitive threat, then perhaps a deeper review, in 2012, would have resulted in the merger being blocked. In fact, recent revelations in the House Judiciary Committee Report suggest such internal documents may have existed.[32] If those documents existed, then this case may well represent a failure to detect competition problems, but it doesn't necessarily represent a failure of the substantive legal test, since both in the UK and Europe authorities can block a merger where the evidence suggests the objective is to neutralise a nascent competitive threat.[33]

Reverse killer acquisitions

CCV argue that "reverse killer acquisitions" are empirically more prevalent. Such cases "***may** effectively extinguish the standalone effort of the buyer to expand in a particular space because the target immediately provides it with those capabilities*" (emphasis added).

CCV claim that such cases have to date automatically been held to be competitively benign. But that is simply not true. This issue has been considered a relevant question in past merger cases. It's a standard potential competition concern. Merger control is actually to a first approximation agnostic to who is the acquirer and who is the acquiree.[34] If the acquiree is a potential entrant to the acquirer's market, we may have a potential competition problem that needs to be assessed. If the acquirer is a potential entrant to the acquiree's market, we may again have a potential competition problem to be assessed. We don't need the term "reverse killer acquisition".

CCV claim that what is *"often apparent (particularly when one looks at internal documents) is that these acquisitions are often evaluated internally in terms of 'buy vs build.' Which is to say that there is often an alternative path to expanding into a particular space through the acquisition: with sprawling capabilities, competences, and limitless internal funding, buyers are often already on the way to building a functionality themselves."*

But there is a key point that CCV appear to be missing; namely, that even if the acquirer has access to funds, they do not necessarily have access to limitless software engineering bandwidth. CCV ignore this issue. Tech firms, like firms in many other non-tech industries, are constantly having to manage scarce (in this case, engineering) resources across projects. There may be an opportunity cost of lost engineering time on one project if they switch their engineers to build something else. Many acquisitions in tech are acqui-hires – purchases of individuals with scarce engineering talent; not the product.

It is simply wrong to think that if there is a potential positive net present value research project, a tech firm will automatically undertake it because there is no finance constraint. Regardless of Google's access to finance, it cannot clone Demis Hassabis, the CEO and co-founder of DeepMind.[35] Scarce engineering resources imply that tech firms need to prioritise and leave some things on the table. If an opportunity to expand in a new market through an acqui-hire becomes available they may well take it, but this doesn't necessarily mean absent the acquisition they would have organically expanded into that area. These real-world human resource constraints are missing from the overly theoretical world CCV present.

32 U.S. House Committee on the Judiciary, Report, Investigation of competition in digital markets, 2020, available at: https://judiciary.house.gov/uploadedfiles/competition_in_digital_markets.pdf ("House Judiciary Committee Report"). It reports on contemporaneous internal documents and e-mails by Zuckerberg that said Facebook was pursuing the merger to "neutralize a competitive threat" (see page 151).

33 It is worth noting that the innovation theory of harm in Experian/ClearScore that is discussed above was based largely on the internal documents.

34 Practitioners in corporate finance always complain when we practitioners in competition use the term "merger" to describe what in their world is technically an "acquisition". They care about this distinction, we don't.

35 https://en.wikipedia.org/wiki/Demis_Hassabis

CCV place significant weight on internal documents which they claim "*often show the incumbent making (or thinking about making) an organic foray into this new market. The opportunity to buy instead then comes along. Once bought, the target may be cannibalised for certain assets to power the incumbent's own effort. Or the incumbent's own project quietly may be shelved. Either way, the buyer's innovative effort in the target's market has been extinguished.*"

We agree that if the internal documents referred to here exist then of course we need to undertake an assessment of potential competition. But this is precisely what happened in Google/DoubleClick, another of CCV's poster child cases. The Commission was fully aware Google was planning to enter display ad serving and therefore conducted an in-depth assessment as to whether Google was a uniquely well-placed entrant. There was no such evidence then and there is no evidence that has "come to light" since then that suggests it would have been.[36]

Conclusion

Contrary to what CCV seek to suggest, merger analysis is complex and therefore requires a detailed case-by-case assessment of the relevant facts, not blanket rules.[37] We should therefore be extremely wary of deviating from this established practice by introducing presumptions into merger control. This is especially the case where the arguments for doing so are weak, flawed and unsubstantiated, both theoretically and, more importantly, empirically.

36 See Section 7.2.2.2 of the Google/DoubleClick Decision. The question to be addressed was whether Google's display ad serving products were likely to grow into an effective competitive force, and whether it is more likely to successfully enter than others. On this the Commission concluded that "*there is no reason to believe that it would have provided such features that would have made it a competitor particularly better placed than the numerous already present in the market.*" We have no more information today than the Commission had at the time on what would have become of Google's display ad serving products had they been launched. The key point is that the Commission was fully aware that Google was working on display ad serving products that would be canned if the merger went through and made its clearance decision on that basis.

37 It should be noted that at the EU level, currently there is no presumption for or against mergers. The standard of proof for a prohibition and clearance decision is symmetric: the Commission must prove a prohibition or clearance on a balance of probabilities.