



POLICY REVIEW

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Killer Acquisitions

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The topic of "killer acquisitions" is rapidly gaining traction, both in the academic and policy world. In particular, there is a growing concern about the anti-competitive effects of large tech firms acquiring start-ups to "kill" competition.

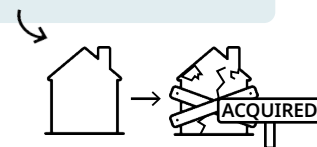
The term "killer acquisitions" was introduced by Cunningham *et al* (2018) in an empirical paper on the pharmaceutical industry.¹ The study showed that 5.3 to 7.4% of the acquisitions in the pharmaceutical industry conformed to their definition of a killer acquisition.

definition



Cunningham *et al* (2018) define a killer or zombie acquisition as an acquisition in which **the start-up's innovation project is buried or abandoned due to the fear of a potential competitive threat.**

Today, policymakers talk of killer acquisitions more generally. The term is often used in relation to the M&A activity of the large technology firms in the digital sector, also known as "Big Tech" (Gautier and Lamesch, 2020). Big Tech firms acquire many start-ups. The GAFAM firms – Google, Apple, Facebook, Amazon, and Microsoft – have bought over 400 firms between 2009 and 2019 (Furman *et al*, 2019). These numbers combined with the high concentration of digital markets and the absence of substantial antitrust scrutiny are a cause of concern for many. Unsurprisingly, reforming merger control – the antitrust branch responsible for preventing anticompetitive concentrations – has become a focal topic of debate among academics and policymakers.



POLICY REFORM

Various policy reports have sounded the alarm about the adverse impact of start-up acquisitions on competition.

notable examples

Issues raised by start-up acquisitions



- Australian Competition and Consumer Commission, 'Digital Platforms Inquiry' (2019) Final Report.
- Jacques Crémer, Yves-Alexandre de Montjoye, and Heike Schweitzer, 'Competition Policy for the Digital Era' (2019) Final Report for the European Commission Directorate-General for Competition.
- Jason Furman *et al*, 'Unlocking Digital Competition' (2019) Report of the Digital Competition Expert Panel.
- Fiona Scott Morton *et al*, 'Committee for the Study of Digital Platforms: Market Structure and Antitrust Subcommittee' (2019) Stigler Center for the Study of the Economy and the State.
- OECD, 'Start-Ups, Killer Acquisitions and Merger Control' (2020) OECD Background Note.

> Motta and Peitz (2020) provide an overview of how start-up acquisition reduces consumer welfare. The main theories of harm centre around adverse price effects when two-sided platforms are involved, anti-competitive combinations of data, or making a more efficient competitor non-viable.

> Whether a start-up acquisition is anti- or pro-competitive also depends on the counterfactual. Does the start-up have the ability to continue its innovative project absent the merger? If so, the acquisition is anti-competitive. If, on the other hand, the start-up needs the incumbent to innovate (or at least to bring the innovation to market), and the incumbent has the incentive to do so, the acquisition can be pro-competitive (Affeldt and Kesler, 2021).

> While the competition concerns raised by start-up acquisitions are well understood, most transactions escape antitrust scrutiny. Start-ups often do not achieve a turnover that meets the notification thresholds specified in merger laws. This is particularly true in the digital economy, where startups must build a large user base before monetising their product (Motta and Peitz, 2020). Large firms can thus acquire nascent rivals or complementors without too much scrutiny from competition agencies.

Recent legal and policy developments

Around the world, policymakers are taking steps to bring start-up acquisitions under the jurisdiction of their competition authorities.

notable examples



Austria and Germany

have complemented the traditional turnover-based thresholds with thresholds based on the value of the transaction (which is often high in digital markets).²



In the EU, the European Commission has published its new guidance on Article 22 of the Merger Regulation. A national competition authority (NCA) can now refer concentrations to the Commission when it has no national jurisdiction. These concentrations do not have to reach the turnover thresholds nor be within the jurisdiction of the NCA.³ The General Court recently approved the new referral system in *Illumina/Grail*.⁴



In the **United States**, one can expect increased scrutiny through *ex post* merger reviews, as the Federal Trade Commission (FTC) has announced a policy review of all past Big Tech acquisitions, irrespective of their size.⁵ Meanwhile, the FTC has sued Facebook to unwind the acquisitions of Instagram and WhatsApp, which arguably should not have been approved at the time (Argentesi *et al*, 2020).⁶

¹ The paper was revised in 2020. The 2018 version already acquired widespread popularity, to the point that "it was the only academic paper that economics Nobel prize winner Jean Tirole referred to in his opening speech to the European Commission's 'Shaping competition policy in the era of digitisation' conference in January 2019" (Holmström *et al*, 2019).

² The Austrian and German competition authorities have jointly published guidelines on the thresholds. See Bundeskartellamt and Bundeswettbewerbsbehörde, "Guidance on Transaction Value Thresholds for Mandatory Pre-merger Notification (Section 35 (1a) GWB and Section 9 (4) KartG)" (2018), English courtesy translation available at https://bwb.gv.at/fileadmin/user_upload/Downloads/standpunkte/2018-07_Guidance_Transaction_Value_Thresholds.pdf.

³ See Commission Guidance on the application of the referral mechanism set out in Article 22 of the Merger Regulation to certain categories of cases, C(2021)1959 final.


⁴ T-227/21 *Illumina v Commission* [2022].

⁵ FTC, "FTC to Examine Past Acquisitions by Large Technology Companies" (press release, 11 February 2020) <<https://www.ftc.gov/news-events/news/press-releases/2020/02/ftc-examine-past-acquisitions-large-technology-companies>>.


⁶ For updates on the case, see <<https://ftc.gov/legal-library/browse/cases-proceedings/191-0134-facebook-inc-ftc-v->>.

In addition to the above developments, there is an emerging trend towards **ex ante regulation** to help tackle start-up acquisitions, both at the European and the national level.

notable examples



In the **EU**, the recently-adopted Digital Markets Act (DMA) requires gatekeepers to inform the Commission before implementing any acquisition involving a target that provides a core platform service, facilitates data collection, or provides any other service in the digital sector. In turn, the Commission can inform the Member States so that they can refer these acquisitions – on the basis of the new referral mechanism – to the Commission for review.⁷



In the **United Kingdom**, platforms with a strategic market status must similarly report all acquisitions to the Competition and Markets Authority.⁸

THE OTHER SIDE OF THE COIN: DYNAMIC COMPETITION


Various works in the literature offer a counterweight to the anxiety witnessed in policy circles:

- > Gautier and Lamesch (2020) show that killer acquisitions are extremely **rare**.
 - > To be considered a killer acquisition, according to their (perhaps restrictive) definition, an acquisition should:


1 be in the core segment of the acquirer

2 continue under the original brand


3 have a substantial user base name after acquisition



The authors find that only 1 out of the 175 GAFAM acquisitions over the years 2015-2017 (Facebook's acquisition of Masquerade) fulfils the three conditions.
- > Other have explored **alternative explanations** for the high rate of start-up acquisitions. These explanations would counsel caution in using the term killer acquisition:
 - > Some works emphasize incumbents' desire to control unique capabilities developed in the start-up.



As Cabral (2020) put it, "What is special about many acquisitions is that the 'giant' is not simply 'killing' a potential rival but rather acquiring a technology that complements the incumbent's assets."
 - > The effect on competition of "collaborative acquisitions", which involve joining R&D capacities, is debated (Lundqvist, 2021). While R&D collaborations enhance the efficient development of new goods and create synergies, they can also modify the allocation of resources to R&D in ways in that alter future innovation.⁹
- > A strand of literature has also developed on "**acqui hiring**" (Gil, 2018). An acquisition can be an efficient way to hire a start-up's human capital by reducing the transaction costs of multiple employment negotiations and avoiding labor market frictions.
 - > Cunningham *et al* (2020) do not find significant evidence supporting the hypothesis of acquisition by hiring in the pharmaceutical sector.
 - > This seems to be different in digital conglomerates (Ouimet and Zarutskie, 2011; Kim, 2018). In particular, in innovation intensive firms, R&D is labour intensive (Petit, 2016), and "technical managers" embody important knowledge (Arrow *et al*, 1996).



The differences between the pharmaceutical and digital sectors invite caution in the transferability of the findings, especially in the absence of empirical verification.
- > Fumagalli, Motta and Tarantino (2020) emphasise the **pro-competitive effects** of start-up acquisitions:
 - > Start-ups might lack the assets needed to obtain external funding. In the presence of financial constraints, incumbents' takeovers increase the chances that innovation reaches the market.
 - > The caveat is that acquisitions should occur at the early stage of innovation development when access to funding is still fundamental.
- > Another family of works focuses on how incumbents influence future **innovation**. Some consider that venture capitalists (VCs) avoid investment in product spaces with low expected value due to monopoly incumbency. They refer to this issue as "**kill zones**", denoting the idea that the entry of start-ups in markets to which Big Techs have easy access is hard to finance (Kamepalli, Rajan and Zingales, 2020; Hathaway, 2018).
 - > In a kill zone setting, the value of innovative entrants who develop products that are similar or adjacent to an incumbent monopoly may be reduced. Prospective payoffs decrease, and a kill zone is created. A pattern of start-up acquisitions by incumbents may signal their ability to jump into new markets, deterring start-ups' incentives to innovate and create new markets.

The **kill zone theory** holds that **there are product areas around the Big Tech firms where no one will fund a new company.**

⁷ Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 September 2022 on contestable and fair markets in the digital sector and amending Directives (EU) 2019/1937 and (EU) 2020/1828 (Digital Markets Act), art 14.

⁸ UK Government, "Consultation outcome: A New Pro-Competition Regime for Digital Markets – Government Response to Consultation" (6 May 2022).

⁹ Lundqvist notes that, according to Jorde and Teece, collaboration in industries with rapid technology change is unlikely to injure competition at all. See e.g., Thomas Jorde and David Teece (1989, 1990). However, this standpoint is not universally shared, see Joseph Brodley (1990).

- > As the authors acknowledge, the empirical evidence on kill zones referenced above has limitations.
 - > Anecdotally, some VCs confirm the kill zone's existence (Schechter, 2018), while others throw doubt on the idea, suggesting it is an excessive characterization.¹⁰ Besides, the world witnessed in 2020 that Google, Amazon, Apple or Facebook's supposed kill zones did not make the entry and expansion of Zoom in the adjacent segment of video calls impossible.
 - > These anecdotes highlight a well-known argument from the business and management literature: incumbent firms are victims of inertia and myopia, failing to spot value creation opportunities sometimes very close to their core markets (Christensen, 1997).¹¹
- > Some works have refined the theory of kill zones to suggest that start-ups rarely intend to develop *substitutes* for incumbent products. Bryan and Hovenkamp (2020) demonstrate a bias of entrants toward innovations that improve the leaders' technology.
 - > Credit-constrained start-ups maximize the opportunities of launching their product if the leader can acquire them. Indeed, acquisition by incumbents represents the prevalent exit strategy for start-ups (Lemley and McCreary, 2020).¹² From this perspective, acquisitions allow innovations to reach the market.

Given the above, **calls for a stricter merger policy require careful scrutiny**. A stricter merger policy might catch transactions without a killer acquisition purpose or effect and might undermine entrants' innovation incentives (Cabral, 2020; Letina, Schmutzler and Seibel, 2020).

- > Ultimately, whether a prohibition of mergers increases or decreases entrants' incentives to invest, innovate and compete depends on the characteristics of the concerned market (Katz, 2020).

SUFFICIENT EMPIRICAL EVIDENCE?

Empirical data on the competitive effects of Big Tech acquisitions are still **scarce** (Affeldt and Kesler, 2021).

- > Gautier and Lamesch (2020) observe that digital incumbents tend to acquire start-ups in their core segment.
 - > While noting that such acquisitions usually result in the shutdown of the start-up, the authors also warn against an overrepresentation of the phenomenon.
- > Koski, Kässi and Braesemann (2020) find that takeovers by technology giants reduce market entry rates and decrease available venture capital funding in the target product markets.
 - > In the long run, the emergence of kill zones can weaken incumbents' incentives to innovate. In the short run, the effect of such acquisitions on consumer welfare remains unknown.
 - ↪ **99** Koski, Kässi and Braesemann (2020) highlight that "an increased concentration of platform ownership to data giants via their acquisitions poses a threat not only to the competition in platform markets but also in those markets offering complementary, traditional products."
 - > If it is true that the effect of acquisitions on incentives to innovate varies widely with market-specific characteristics (Katz, 2020), the findings of Koski, Kässi and Braesemann (2020) suggest that the development of sector-specific regulatory approaches can be challenging.
- > Affeldt and Kesler (2021) analyse product-level data from the Google Play Store. They find that about half of the apps acquired by GAFAM are discontinued, while continued apps become free of charge but request more privacy-sensitive permissions.
 - > Their research also suggests that the effect of the acquisitions on competitiveness does not depend only on the merging firms. The analysis should also consider the effects on competing firms, and, in case of multi-product firms, potential spillovers or reallocation of efforts to other product markets.

CONCLUSION

Killer acquisitions constitute a strong economic "narrative", as Nobel prize economist Robert Shiller would say (2019). The idea calls to intuition. Whereas the intuition may hold for the pharmaceutical industry, the literature showed that the narrative cannot simply be extended to today's Big Tech firms.

Today, the discussion is characterised by two sets of views. One strand of the literature considers killer acquisitions to be a general problem. This literature calls for policy reform in the form of stricter merger control, such as M&A bans or reversals of the burden of proof on merging firms. Another strand of the literature highlights the multidimensionality of the issue. The dearth lack of empirical evidence affects both sides of the debate. Developing an optimal competition policy response for the digital economy cannot be grounded on research developed around the pharmaceutical sector. Consequently, economic **empirical research is needed to understand the effects of start-up acquisitions on post-merger competition, incentives to innovation and, ultimately, gains or losses in consumer welfare**. Such research could inform the adaptation of merger policies to the specificities of digital markets. Lacking those insights, regulatory action will be nothing less than blind.

¹⁰ See e.g., Kate Clark, 'Marc Andreessen's Secret Weapon for Finding Startup Investments' (*The Information*, 21 February 2020) <<https://theinformation.com/articles/marc-andreessens-secret-weapon-for-finding-startup-investments>>. Marc Andreessen is a tech venture capitalist who, in particular, invests in start-ups.

¹¹ Many papers have been written on creative destruction of incumbents by new firms, see e.g., Bergeck *et al* (2013). More nuanced theories of incumbent failure have also been presented, see e.g., Sungwook, Kalwani and Robinson (2006) and Tongur and Engwall (2014).

¹² In fact, start-ups are more keen on being acquired by the market leader than by the laggard firms.

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