BRIEFING PAPER

BETTER TOGETHER: THE PROCOMPETITIVE EFFECTS OF MERGERS IN TECH
EXECUTIVE SUMMARY

– The British government is consulting on whether to lower the burden of proof needed by the Competition and Markets Authority (CMA) to block mergers and acquisitions involving large tech companies that have been deemed as having strategic market status (SMS) in some activity. This is likely to include companies like Google and Facebook, but the scope may grow over time.

– Under the current regime, the CMA uses a two-step process. At Phase 1, the CMA assesses whether or not a deal has a ‘realistic prospect of a substantial lessening of competition’. If so, the merger is referred to Phase 2, where it is assessed in depth by an independent panel, and remedied or blocked if it is deemed to carry a greater than 50 per cent chance of substantially lessening competition.

– The reforms proposed by the government would stop any deal involving a SMS firm that creates a ‘realistic prospect’ of reducing competition. This has been defined by courts as being a ‘greater than fanciful’ chance.

– In practice, this could amount to a de facto ban on acquisitions by Big Tech firms in the UK, and any others designated as having strategic market status.

– Mergers and acquisitions are normally good or neutral for competition, and there is little evidence that the bulk of SMS firms’ mergers have harmed competition.

– Although the static benefits of mergers are widely acknowledged, the dynamic benefits are less well-understood. We highlight four key ways in which mergers and acquisitions can enhance competition by increasing dynamic efficiency:

– **Acquisition is a key route to exit for entrepreneurs**

  – Startup formation and venture capital investment is extremely sensitive to the availability of exits, the vast majority of which are through acquisition as opposed to listing on a stock market. In the US, more than half (58%) of startup founders expect to be acquired at some point.

  – According to data provider Beauhurst, only nine equity-backed startups exited through IPO in 2019. By contrast, eight British equity-backed startups were acquired last year by Microsoft, Google, Facebook, Amazon, and Apple alone.

  – Cross-country studies find that restrictions on takeovers can have strong negative effects on VC activity. Countries that pass pro-takeover laws see a 40-50% growth in VC activity compared to others.
– Nine out of ten UK VCs believe that the ability to be acquired is ‘very important’ to the health of Britain’s startup ecosystem. Half of those surveyed said they would ‘significantly reduce’ the amount they invested if the ability to exit through M&A was restricted.

– Acquisitions enable a ‘market for corporate control’
  – M&A allows companies with specific skills, such as navigating regulatory processes or scaling products, to acquire startups and unlock value that would otherwise not be realised in the absence of a takeover.

– Acquisitions can reduce transaction costs between complementary products
  – M&A can encourage the development of complementary products that might not be able to find a market without the ability to be bought and integrated by an incumbent.
  – In the presence of network effects or high switching costs, takeovers can be a way to allow incremental improvements to be developed and added to incumbent products that would not be sufficiently attractive to compete users away from the product by themselves.

– Acquisitions can support inter-platform competition
  – Competition in digital markets often takes place between digital platforms that have a strong position in one market and move into another market, sometimes using their advantage in the original market to gain a foothold in the new one. This often involves them moving into markets that are currently dominated by another digital platform, increasing competition faced by these companies.
  – Acquisitions can accelerate this kind of inter-platform competition. Instead of starting from scratch, platforms can use mergers to gain a foothold in the new market, and do so more rapidly and perhaps more effectively than if they had to develop the product in-house.
  – There are many examples of this kind of behaviour: Google’s acquisition of Android increased competition faced by Apple’s iPhone; Apple’s acquisition of Beats by Dre increased competition faced by Spotify; Walmart’s acquisition of Jet increased competition faced by Amazon in e-commerce; myriad acquisitions by Google, Amazon, and Microsoft in cloud computing have strengthened the competition each of those face from each other.

– The UK risks becoming a global outlier
  – There is a serious risk that the US and EU do not follow suit on merger regulation. Although the EU’s Digital Markets Act is highly restrictive in some ways, it does not propose any changes to the EU’s standards of merger control besides changes to notification thresholds.
  – It is also unlikely that the US will follow suit. Although a bill has been brought forward in Congress, it may struggle to pass without bipartisan support. In the last Congress, between 2019 and 2020,
only 2% of the 16,601 pieces of legislation that were introduced were ultimately passed into law.

– The Government’s theories of harm caused by tech mergers are under-evidenced, hard to action, and do not require a change in the burden of proof to be effectively incorporated into the CMA’s merger review process.

– The government should instead consider a more moderate approach that retains the balance of probabilities approach, but that attempts to drive competition by supporting startups and entrepreneurs, and gives the CMA the tools it needs to do the best job it can within the existing burden of proof.

– To support startups, the government should: streamline venture capital tax breaks such as EIS and SEIS, lift the EMI caps to £100M and 500 employees to make it easier for scale-ups to attract world-class talent, and implement reforms to the pensions charge cap to unlock more of the £1tn capital in Defined Contribution pension schemes for investment in startups.

– The CMA should be better equipped to challenge deals that are potentially anti-competitive with lower and mandatory notification thresholds for SMS firms, alongside additional resourcing to bring the cases it believes may threaten competition.

– Most importantly, any new SMS mergers regime should be limited to the activities given SMS designation, not the firms as a whole, to avoid limiting the use of M&A to increase inter-platform competition.
Introduction

As part of its efforts to promote competition within digital markets, the government is considering major changes to the UK’s merger control regime. As currently proposed, the changes would make it significantly harder for digital platforms deemed to have strategic market status (SMS), such as Facebook, Google, Amazon, and Microsoft, to acquire British startups.

The proposals would have major implications for Britain’s startup ecosystem, because they would affect things like startup formation and VC investment, as well as Britain’s relative attractiveness as a place to do business compared to other countries. While the Government is ‘mindful of the need for a proportionate approach’, the changes proposed are more radical than regimes likely to be adopted by the United States, and that are currently on the table in the European Union.

In this paper, we review the government’s proposals and argue that they risk undermining competition in Britain’s technology sector, both by constraining competition between platforms and by undermining the formation of and investment in startups in the UK. The proposals are especially risky if the UK ‘goes it alone’ and introduces a more restrictive regime while the United States does not. We argue that some in the UK government have misjudged the likelihood that the US will adopt similar measures.

Furthermore, we consider the theories of harm cited by the Government and argue they are not sufficient to provide justification for major changes to the UK’s merger control regime for three key reasons. First, they are often under-evidenced, relying on data from different markets (e.g. pharmaceuticals) which are not applicable to digital markets. Second, they are not clearly actionable in a cost-effective way that minimises error-costs. Third, there is no reason to believe that a lowered burden of proof is needed for the CMA to incorporate these theories of harm into its existing merger review processes.

Instead of lowering the burden of proof to what could be a de facto ban on mergers involving SMS companies, we argue a better approach to enhancing competition would be to focus on measures to support entrepreneurship and startups, and to give the CMA additional resources and notification requirements it needs to bring cases where, under the existing ‘balance of probabilities’ approach, it feels that a substantial lessening of competition is likely to take place.

This paper is intended to complement a previous paper, Conflicting Missions: The Risks of the Digital Markets Unit to Competition and Innovation, which discussed some of the risks present in the government’s plans to set up a Digital Markets Unit at the CMA, designate some companies as having strategic market status, and impose codes of conduct.
The government’s proposals

The British government is consulting on whether to lower the burden of proof needed by the CMA to block mergers and acquisitions involving companies that have been deemed as having strategic market status (SMS) in some activity. While SMS designation applies to a single line of business, the proposals being consulted on would apply to all M&A by the SMS firm, in any area or activity. These proposals are part of a broader set of plans to set up a Digital Markets Unit within the CMA to govern the conduct of firms in the areas they are deemed to have SMS.

This follows a recommendation from the Report of the Digital Competition Expert Panel, led by economist Jason Furman, that SMS mergers be assessed on a ‘balance of harms’ measure that attempts to adjust for the potential magnitude of competition that could be lost from a merger. The CMA argued that that was an impractical standard. Instead, through the Digital Markets Taskforce it participated in with representatives of other government departments, it recommended a new test in which deals with a ‘realistic prospect’ of substantially lessening competition would be blocked. Alternatively, the government may settle for a burden of proof that is higher than a ‘realistic prospect’ but lower than the current standard.

The ‘realistic prospect’ test is already used by the CMA at Phase 1 to determine whether to refer a merger to Phase 2. It has been interpreted by courts and the CMA as describing a risk that is ‘greater than fanciful, but below 50 per cent’. At Phase 2, mergers are assessed in depth and remedied or blocked if they are deemed to create a greater than 50% chance of substantially lessening competition.

It is difficult to predict what this standard of proof would look like in practice. Since the ‘realistic prospect’ test is already in use for referral to Phase 2, it may mean that we can look back at past mergers involving firms likely to be given SMS designation and determine what kinds of mergers have been referred to Phase 2. This would mean that deals such as Amazon’s investment in Deliveroo, Google’s acquisition of Looker, and perhaps other deals (depending on what firms are given SMS designation) would have been or would be blocked, though other high-profile tech acquisitions may not have been. The CMA recently cleared Facebook’s purchase of Kustomer at Phase 1, for example, and may highlight this as evidence that the proposed reforms would not amount to a de facto ban on acquisitions.

3 Competition and Markets Authority, Facebook, Inc./ Kustomer, Inc. (September 2021).
This narrow reading seems implausible, however, since the government itself cites Facebook/Instagram as an example of a merger that the proposed regime may block. Indeed, the consultation document argues that 'Evidence indicated there was a realistic but uncertain chance (i.e. likely less than 50%) that Instagram would grow and compete with Facebook'. Yet despite this ‘realistic’ chance, the deal was not referred to Phase 2. It was cleared at Phase 1 and hence, at the time, not deemed to have a ‘realistic prospect’ of substantially lessening competition.

It is also possible that the CMA may take a more expansive view about what constitutes a ‘realistic prospect’ if the Phase 2 review element is removed: even if the CMA currently treats the ‘greater than fanciful’ threshold as referring to a relatively high likelihood, it seems quite possible that such language could justify a much lower likelihood, perhaps referring to even a 5-10% likelihood that a deal could substantially lessen competition.

But the proposed definition of SMS designation is broader than this, and in practice could end up applying to a wider range of firms that operate significant platforms, like Uber, Deliveroo, or Visa. It could also apply to firms that possess valuable intellectual property that other firms are dependent on, like Arm, provided these are engaged in an activity ‘where digital technologies are a “core component” of the products and services’ on offer (which could, for example, include products involving machine learning, so may end up affecting a much wider range of industries than the government expects). This danger will be present even if this is not the government’s intention, and future governments could use the designation to regulate companies well beyond the scope envisaged by the current government.

These unknowns mean that the government’s plans may end up leading to a mergers regime that is significantly more expansive and restrictive than it anticipates, and ends up giving the CMA significant discretionary power to block mergers. Since the new test would apply to the entire company, not just to mergers within the SMS activity, it could also constrain firms’ ability to use acquisitions to move into new markets, and potentially undermine their ability to introduce competition to markets dominated by other SMS firms. For example, if Apple is given SMS designation in the app store market, it may find it difficult to acquire search engine firms, even if doing so would help it to introduce more competition into the search engine market in which Google is likely to be deemed to have SMS designation.

The proposals could also make startups hoping to be acquired by an SMS firm to be more reluctant to operate in the UK, either to be based here, or to supply here if doing so would lead them to fall under the CMA’s jurisdiction. Given that the CMA has extensive global reach to review mergers, and that a previous deal, Saber/Farelogix, collapsed altogether after being prohibited by the CMA—despite limited nexus to the UK—some

“Future governments could use the designation to regulate companies well beyond the scope envisaged by the current government.”

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5 Conflicting Missions, p. 38.
firms may opt to avoid supplying to the UK market altogether to preserve their ability to be acquired later.\(^6\)

The government’s proposals have been presented, and are likely intended, as a minor tweak to an obscure part of merger review. But, in practice, they could amount to a de facto ban on M&A by many of the world’s largest and most important businesses, with serious consequences for competition and startups. In time, this de facto ban could end up applying to companies other than Big Tech as well, including important British firms, which would then face important limitations on their ability to grow. In the rest of this paper, we consider the benefits and costs of the kind of M&A that could be affected.

**The dynamic benefits of mergers and acquisitions in tech**

While it is indisputable that some mergers can reduce competition, this is not their only possible effect. There are myriad *procompetitive* reasons why one firm may choose to acquire another. Indeed, only a tiny fraction of mergers that take place each year across the economy are ever challenged on competition grounds, while many anticompetitive deals do not take place thanks to the deterrent effect of the merger control regime. As well as determining which mergers can and can’t take place, the merger control regime can also indirectly affect startup formation, since being acquired is an important route to exit for entrepreneurs and venture capital investors. These factors mean that, just as there is a risk of underenforcement in merger control, there is also a risk of *overenforcement*, and policymakers must walk a careful tightrope that minimises the risks of either.

It is impossible to judge the stance of merger policy from the number of deals that are blocked or cleared, as some reports have tried to do, because an effective competition policy should deter anticompetitive mergers without having to review them in the first place, just as an ineffective one will allow them to go through.\(^7\) Since embarking on a deal that is later blocked is very costly for the firms involved, a well-functioning competition policy might operate through this deterrence channel. Still, it is difficult to argue that the CMA is failing to win the cases it does bring. Since the start of 2019, 81% of deals it has sent to Phase 2 have been either blocked, abandoned or required remedies, compared with some 50% between 2003 and 2017.\(^8\)

In-depth reviews of completed mergers, and the CMA processes that scrutinised them, is likely to be more useful. One example, prepared for the CMA by Lear, performed an *ex post* review of Facebook/Instagram, Google/Waze, Amazon The Book Depository, Priceline/Kayak, and

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Expedia/Trivago. While this approach can provide useful lessons for the competition regulator itself, and highlight deficiencies in the overall regime if they are present, the findings of this study did not suggest that a lowered burden of proof was necessary.

Because mergers can be procompetitive, as we detail below, a move to a ‘realistic prospect’ test, or similar test that is lower than the current balance of probabilities standard, to block mergers by SMS firms could have the unintended consequence of weakening competition in Britain. This may happen directly, by blocking deals that would have increased competition in the market, or indirectly, by affecting startup formation. This latter factor is particularly important for the government to consider, since the CMA cannot practically take this kind of effect into account when it is scrutinising individual mergers — in the same way it cannot consider things like environmental effects or the effect of the merger on, for example, the pensions of the workers concerned. It is the government’s role to consider broader factors like this and set the rules accordingly.

In this section, we summarise some of the key ways in which mergers and acquisitions can enhance competition both directly and indirectly. Though the static efficiencies that can arise from mergers are well-understood — such as the elimination of duplicative processes, or the elimination of double marginalisation — we focus on dynamic efficiencies that can arise over time, and are often ignored by policymakers when considering the costs and benefits of M&A. Though we generally do not distinguish between horizontal, vertical and conglomerate mergers, we assume that most mergers in consideration will be vertical or conglomerate.

**Acquisition is a key route to exit for entrepreneurs**

Restrictions on tech mergers and acquisitions are typically premised on the idea that large businesses use them to eliminate competition. But if founding a startup becomes significantly riskier, then many competitors may never be set up in the first place.

Because their future revenues are highly uncertain, tech businesses typically prefer equity financing to debt financing. Although equity-funded startups represent only a small percentage of all firms, they have an outsized impact on employment, investment, and productivity. In the US, only one in 600 businesses receives venture capital investment, but those businesses represent 10% of private sector employment and half of all initial public offerings (IPOs).

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10 For detailed analyses of the widely accepted costs and benefits of horizontal and vertical mergers, see, eg, The Economics of Horizontal Mergers: Unilateral and Coordinated Effects and OECD: Vertical Mergers.

Failure is commonplace in all sectors: around half of all new businesses close after five years of operations. But failure rates are even higher among tech startups. As many as 90% fail.\(^\text{12}\)

Venture capitalists invest on the understanding that many of the businesses in their portfolio will likely fail, but that the returns from a single successful exit could be large enough to offset any failures. Unsurprisingly, this means that exit considerations are the most important factor for VCs when valuing a company. A US survey of VCs found 89% considered exits important and 48% considered it the most important factor. This is particularly important for later-stage VCs.\(^\text{13}\)

One route to exit is by making a public offering on a stock exchange, but listings of this kind are relatively rare. According to data provider Beauhurst, only nine British equity-backed startups exited through IPO in 2019. By contrast, eight British equity-backed startups were acquired last year by Microsoft, Google, Facebook, Amazon, and Apple alone.\(^\text{14}\)

The possibility of selling a larger business is a viable alternative to IPO for investors. In the US, the average VC firm reports that 15% of its exits are through IPOs, 53% are through M&A, and 32% are failures.\(^\text{15}\)

Acquisitions are an increasingly important exit route for tech startups in Britain, too. The UK has seen a dramatic rise in exits for equity-backed startups since 2011, rising from 26 to 524 in 2018 (falling to 495 in 2019). Among high-growth companies, 97% exited via acquisition between 2017 and 2019.

Exits via IPO tend to be more lucrative, however. In 2018, the total value of acquisitions of high growth companies was £4.2bn. By contrast, the value of exits via IPOs were £9.71bn – more than twice as high.\(^\text{16}\)

Cross-country studies show that restrictions on takeovers can have strong negative effects on VC activity. A paper by economists Gordon M. Phillips and Alexei Zhidanov analyzed data on venture capital investments and M&A activity across 48 countries, and found that countries that pass pro-takeover laws see a 40-50% growth in VC activity compared to others. Looking at data within the US, they find that states that pass anti-takeover laws see VC deals decline by more than a quarter (27%).\(^\text{17}\)

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This data highlights how sensitive VC investment is to the availability of exit opportunities. If the acquisition route was restricted and startups were forced to become more reliant on relatively rare (if more lucrative) IPOs, the opportunities for investors to earn returns from early-stage startups would fall. This would likely reduce new business formation and scaling-up within the tech sector. It could also reduce the number of IPOs and firms that manage to grow to achieve significant scale; without the possibility of acquisition, investment in such firms may be deemed too risky.

Many entrepreneurs start their businesses with the expectation of being acquired at a later point. For instance, the US National Venture Capital Association cites polling showing that more than half (58%) of startup founders expect to be acquired at some point.\(^\text{18}\)

A survey of UK investors from the startup lobby group Coadec found that nine out of 10 believed that the ability to be acquired was very important to the health of the startup ecosystem. Additionally, half of those surveyed said they would significantly reduce the amount they invested if the ability to exit through M&A was restricted. Significantly, more than one in five said that, facing those restrictions, they would stop investing in the UK altogether. In general, 70% of investors believed that the Government only thought about large incumbents when designing competition rules, ignoring startups and the potential for future innovation.\(^\text{19}\)

Restrictions on takeovers could therefore have the unintended consequence of harming competition in a more profound way than many in government may realise, by making it harder for entrepreneurs to start and grow innovative businesses that one day may disrupt the market position of the incumbents that regulators and politicians are concerned about.

The CMA cannot take these kinds of factors into account when it is deciding on individual merger cases, despite their importance, any more than a police force ought to weigh the social effects of enforcing certain laws. It is for the government itself to do this, and consider carefully the wider effects of the ‘rules of the game’ it sets.

**Acquisitions enable a ‘market for corporate control’**

Different businesses are often run in meaningfully different ways. Smaller firms that are good at innovating may struggle to scale up a good product, whereas larger incumbents often have a comparative advantage in marketing and distribution, or in navigating regulatory approvals processes. Some entrepreneurs prefer to set up businesses and sell them before they reach their full scale, so they can try to found new ones. In some cases, businesses that possess some kind of valuable intellectual property may lack the managerial skills that other companies have that could maximise the


social value of those assets.

The ‘market for corporate control’ refers to the changes in ownership and management that attempt to transfer these businesses and assets to whoever has the greatest comparative advantage in running them.\(^\text{20}\) Mergers and acquisitions are, of course, an important mechanism in this market.

One way they can do so is by giving promising startups, with a valuable but difficult-to-monetize product, a clearer route to market. Mergers and acquisitions allow for businesses with more business acumen to acquire suboptimally managed startups and unlock value that would otherwise not be realised in the absence of a takeover, or to combine their products with the startups’ to improve them in ways that would be difficult or impossible to do contractually.

For example, prior to its acquisition by Google, the video-streaming website YouTube lacked a clear route to profitability. At the time of the acquisition, journalists expressed concern that YouTube would follow the fate of file-sharing app Napster, which was forced to shut down after a long copyright dispute and no way to compensate artists for downloads of their music (something Spotify eventually succeeded in doing).\(^\text{21}\) At the time, the New York Times wrote:

> Of course, YouTube has also been compared to Napster, whose music-sharing service was eventually shuttered after a series of lawsuits. While YouTube has made some deals with content providers, including one yesterday with CBS, its users have uploaded millions of copyrighted clips, leading some to question whether Google is inheriting a legal minefield. YouTube has said it is different from the old Napster service because it removes content when a copyright holder complains.\(^\text{22}\)

What wasn’t clear then was that Google would be able to help YouTube fend off legal challenges, and introduce anti-piracy measures that limited challenges to YouTube’s business model.\(^\text{23}\) Nor did many observers realise that online advertising, which Google specialised in, could provide a lucrative business model for YouTube and its content creators, or that Google’s search and discovery algorithms would help the site to compete with competitors like Vimeo and DailyMotion.\(^\text{24}\) In practice, the merger allowed the companies to create a product that was greater than the sum of its parts, with consumers and content makers benefiting. Many of these improvements were unforeseen by observers at the time, including by those


at the top of the tech industry.\textsuperscript{25}

The ability to realise the full potential of a technology may be particularly significant for DeepTech businesses, which have high levels of technical or scientific risk— for example, a university spinout developing quantum computing. DeepTech founders may have innovative ideas and deep technical knowledge developed within academia, but lack the marketing or managerial skills to grow the business that other, larger firms, may have.

This kind of situation is common in the pharmaceutical sector, where small biotech businesses often develop valuable IP but lack the expertise of larger pharmaceutical businesses in terms of navigating regulatory approval processes, marketing, distribution, and safety testing. As these functions typically benefit from large economies of scale, takeovers in biotech likely reduce waste and unnecessary duplication, and allow the founders of the biotech firms to specialise in novel research and development, instead of duplicating the processes that Big Pharma is already good at.

It may appear desirable for firms to grow through building new products rather than through acquisitions. However, they may lack the internal culture that can foster innovation, but still be good at what they do otherwise, or may find it difficult to undertake high-risk ventures due to the profile of their investors, who invest in larger firms precisely because they do not have the risk and volatility associated with smaller start-ups.

For example, grocery-delivery startups have recently been able to raise large investments, and some have achieved multi-billion pound valuations. In many cases, the VC investments they have received exceed the annual capital and R&D budgets of major supermarket chains (e.g. Tesco or Sainsbury’s).\textsuperscript{26} In theory, major supermarket chains that possess deep knowledge and experience of grocery logistics would be well-placed to make similar investments. However, the investor base of major supermarkets is unlikely to share a VC’s tolerance for risk, and will likely prefer steady dividends to a lottery ticket. It seems likely that if or when the business model is proven viable, a large grocery chain may acquire one of the grocery-delivery startups and apply their superior knowledge in procurement and logistics, and roll out their product to customers who are unlikely to try a service from Weezy, but might if it was offered by Waitrose.

Another reason firms may choose to buy innovative products or services, as opposed to building them in-house, is what economist Clay Christensen refers to as ‘the innovator’s dilemma’. Incumbents are more likely to invest in incremental innovations in their most profitable segments, while new entrants focus on low-margin parts of the business.

It is tempting to conclude that the solution to these problems is simply

\textsuperscript{26} Sainsbury’s Capital Expenditure in 2020: £568m. Getir in 2021: £618m ($850m). Source: Statista and Pitchbook.
more disruption and more incumbents being displaced by new entrants. Indeed, that is often the best path, and the rewards for firms that successfully do that are enormous. But that takes time, and ignores the fact that innovation is not the only thing businesses must do to satisfy their customers. Moreover, firms that are good at innovation are often not the same firms that are good at supplying a product to as many customers as possible, as cheaply as possible. The market for corporate control allows firms with a comparative advantage in each to focus on what they are best at, using mergers and acquisitions to assign valuable IP to the business that can use it best.

**Acquisitions can reduce transaction costs between complementary products**

A further pro-consumer benefit of mergers and acquisitions is the ability to reduce transaction costs between complementary products. This can facilitate the development of products that might not be able to succeed in a market where their only route to profitability was direct competition with incumbents. In many cases, licensing or contracting out a function is not possible due to the need to protect trade secrets, or the costs of tightly integrating products from different businesses. In other cases, knowledge may be hard to transfer, as it resides in a staff member’s tacit knowledge. Vertical integration can also reduce prices by preventing double marginalisation, where costs are inflated by multiple markups throughout the supply chain.

In the presence of network effects or high switching costs, takeovers can be a way to add features to a product. For example, a user may be unwilling to switch from a large network to a smaller network, even if the smaller network may have superior features absent the networks using each. While some users may multi-home, or use interoperability features to get the best of both, this may not always be feasible or preferable to an acquisition that allows the larger service to incorporate the features of the smaller one.

**Acquisitions can support inter-platform competition**

As legal scholar Nicolas Petit has argued, competition in digital markets often takes place between digital platforms that have a strong position in one market and move into another market, sometimes using their advantage in the original market to gain a foothold in the new one.27 This can be a vital way for platforms to add competition to markets that had previously been dominated by a small number of incumbents, since the extension may give them a ready-made userbase that a new entrant may find it difficult to build.

For example, Apple has built a competitor to Spotify — Apple Music —

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by including Apple Music on iOS devices, and has gained a foothold in the music-streaming market where other competitors have failed, even when they have been well-funded and backed by the music industry (like Tidal, for instance). Google, Amazon, and Microsoft compete with each other (as well as others, like IBM and Oracle) in cloud computing; Google and Apple compete in smartphones and smartphone operating systems; Facebook, Sony, Valve, and Microsoft compete in VR gaming; Facebook, Google, and Walmart compete with Amazon in e-commerce; Facebook and Google compete in online display advertising; Apple, Google, Amazon, and Netflix all compete in video streaming; and so on.

Acquisitions can accelerate this kind of inter-platform competition. Instead of starting from scratch, platforms can use mergers to gain a foothold in the new market, and do so more rapidly and perhaps effectively than if they had to develop the product in-house — since, as discussed above, there are often challenges to this kind of innovation taking place within large incumbent firm firms.

These can be especially challenging in markets outside their core areas of expertise. For example, in 2015, Disney acquired BAMTech, a direct-to-consumer streaming specialist. This allowed it to leverage its existing IP to develop a streaming platform, Disney Plus, that it has used to to compete with Netflix and Amazon Prime Video. Since Disney Plus launched in 2020, the market leader Netflix has seen its market share fall by nearly a third.

Walmart has used an acquisition of Jet.com, which it bought for $3.3bn in 2016, to build its e-commerce offering and better compete with Amazon. In doing so, it was able to acquire valuable IP and talented staff to strengthen, and eventually replace, its struggling e-commerce offering. Walmart’s online sales began to grow rapidly after the acquisition — with online sales growth nearly quadrupling within a year of the deal — and Walmart has seen enormous growth online of 176% in the following three years, overtaking eBay as the US’s second-largest online retailer and consciously competing with Amazon by offering Prime-like delivery deals. If Walmart’s acquisition of Jet.com has enabled it to grow into a new market outside its core competency, and better compete with an incumbent there, it is representative of many other M&A deals in tech.

A number of cases highlight how acquisitions by strategic market status companies can enhance competition in a market where another SMS firm possesses a large market share.

— **Smartphone OSes:** Google’s $50m purchase of Android in 2005 led to the development of an open-source alternative to Apple’s iOS. Unlike Apple’s vertically integrated walled-garden, Android was customisable and could be used by a range of handset manufacturers, significantly


reducing costs and increasing competition in the smartphone market.

- **Music streaming:** Apple’s $3.2bn purchase of Beats by Dre, which had built a music-streaming service, helped Apple to develop Apple Music, which competes with Spotify and YouTube in music streaming.

- **Cloud computing:** All of Google, Microsoft, and Amazon have made dozens of small acquisitions to build their offerings in cloud computing — Google and Amazon have both made over 25 each, including Google’s acquisition of British firm Dataform. Other competitors have similarly used mergers to build their products to compete with Google, Amazon, and Microsoft, including IBM’s $34 billion acquisition of Red Hat in 2019.30

In all of these cases, the competition regulator may have decided that there was a ‘greater than fanciful’ chance of these deals reducing competition, even if they were still more likely than not to increase it. And it seems indisputable that, in reality, these deals did strengthen competition and improve outcomes for consumers.

It is important to note that, while it would have been possible in each case for the company to have built the service in question internally, it is likely that it would have taken significantly longer. This matters because competition policy is time-sensitive, and competition delayed is competition denied. Even discounting the difficulty of producing innovation in-house in many cases, those who argue that big companies can always ‘build’ rather than ‘buy’ ignore the time that this ‘building’ process takes, during which consumers face a less competitive market, less choice, and higher prices.

Some of the most hopeful prospects for stronger competition in digital markets come from existing platforms moving into new markets. It has been reported that Apple may be developing its own search engine in-house. If it builds one that competes with Google, it may end up succeeding where Microsoft failed, giving consumers more choice in how they search the web and potentially driving down the price of search advertising.31 A standard that prevented M&A to facilitate this kind of move because it created a ‘greater than fanciful’ risk of reducing competition would be one that could be damaging to competition and to British consumers.

**The UK risks becoming a global outlier**

The factors above help to highlight important ways in which mergers can be procompetitive, and hence why restrictions on mergers by SMS firms that go beyond existing standards may be harmful. This includes ways that the CMA cannot factor into its analysis, but that the government must.


A further example of this is the impact of a new merger regime on the UK’s international competitiveness. Over the past decade, the UK’s tech sector has benefitted from stable, predictable regulation and an attractive tax regime. However, moving to a more restrictive and, given the discretion it gives to the CMA, less predictable merger regime may undermine these advantages if other major economies do not follow suit. Startup founders are highly mobile (49% of the UK’s fastest growing businesses have foreign-born founders), and may opt for jurisdictions in which they will not face major regulatory hurdles to exiting their firms through acquisition.

This may exacerbate the impact of recent rises in Corporation Tax and the restricting of Entrepreneurs’ Relief to the first £1m of gains, at a time when many other governments are making a concerted effort to become more startup-friendly by reforming the tax treatment of stock options and modernising labour legislation.

There is a major risk that the US and EU do not follow suit on merger regulation. Although the EU’s Digital Markets Act is highly restrictive in some ways—more so than the UK’s other proposed regulations for SMS firms—it does not propose any changes to the EU’s standards of merger control besides changes to notification thresholds. Further reforms of this kind may follow in future, however.

It is far from clear that the US will follow suit, despite the assumptions of many in government in the UK. Although a bill has been brought forward in Congress, at the time of writing, it has failed to win support from Democratic leadership in the House, and may not win support in the Senate. In the last Congress, between 2019 and 2020, only 2% of the 16,601 pieces of legislation that were introduced were ultimately passed into law. Any potential legislation will require substantial bipartisan support to pass the Senate, which may not be forthcoming, especially while issues like the debt ceiling and infrastructure dominate.

There is a significant risk that UK observers are misjudging the prospects for these bills, and assuming that the US will introduce similarly restrictive rules on mergers by SMS-equivalent firms. If it does not, while the UK does, the UK will be at a severe disadvantage, adding to existing disadvantages the UK startup ecosystem has compared to the United States.

**Theories of harm are under-evidenced and hard to action**

There are three main theories of harm that motivate calls for a new tougher mergers regime: Kill Zones, Potential and Nascent Competition, and Killer Acquisitions. This section reviews the evidence for these phenomena, concluding that, while they are important theories for the CMA to consider when engaging in merger review, they do not suggest that the burden of proof needed to reject a merger should be changed.
**KILL ZONES**

Some academics have argued that the presence of dominant firms in a market discourages investment and entry, and this in turn reduces levels of innovation. Economists Sai Krishna Kamepalli, Raghuram Rajan, and Luigi Zingales argue in a working paper that the prospect of an incumbent acquiring a rival platform deters users from signing up to the rival in the first place.\(^{32}\) The theory underpinning the argument is that early adopters, labeled by the authors as ‘techies’, face high switching costs and are reluctant to switch to new platforms if they expect them to be acquired.

However, this model rests on implausible and contradictory assumptions. Early adopter ‘techies’ switch *more* frequently than other consumers. This fact seems to imply that they do not, in fact, face high switching costs, and thus may not be deterred from trying a new service, particularly if they can multi-home — that is, use both the incumbent and new services at the same time.

The authors argue that, if acquisition is possible, ‘techies’ would be better off staying on the incumbent platform and waiting for it to acquire the rival, but they cite no real world examples of where this effect would, or has been, a problem. On the contrary, Facebook’s acquisitions of Instagram and Whatsapp appear to push against their assumption. These platforms have remained separate on the user side, and are still accessible via different apps to this day, years after the acquisition. While it is true that you can now log in to Instagram with your Facebook account, it is also possible to do this for many apps that are not owned by Facebook, such as Spotify and TikTok. Even if this were not the case, it is far from clear that creating a new login would be a significant switching cost for ‘techies’.

Based on such unrealistic assumptions, the relevance of this paper’s predictions for the real world are limited. While they find ‘that normalized VC investments in start-ups in the same space as the company acquired by Google and Facebook drop by over 40% and the number of deals falls by over 20% in the three years following an acquisition,’ this finding was based on analysis of just nine transactions. Furthermore, the authors limit their analysis to Facebook and Google acquisitions that exceeded a $500 million threshold, excluding many of the deals that regulators may be concerned with. With such a narrow sample, other factors may explain the apparent trends they observe, such as investments peaking and declining as a market matures.

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The existence of Kill Zones does not imply stricter merger control is justified.

**Diverting innovation, not suppressing it**

It does seem intuitive that startups would be less inclined to work in areas already dominated by an incumbent, but this is not driven by mergers.

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One study examined occasions when Google has developed a native app for Android that competes with a segment of third-party developers.\(^\text{33}\) It found that, while developers do reduce investment and innovation in the affected app when Google enters, they do not stop innovating altogether; they instead focus resources on developing new apps. The authors suggest this may increase efficiency by preventing unnecessary duplication.

**Building, not buying, would cause the same harm**

Under a stricter merger regime, large incumbents may instead enter the market by building the services internally. This would have the same impact on investment and innovation, but startups would no longer be able to increase their valuation through the prospect of acquisition.

**‘Reverse Kill Zones’ may also exist, but may increase net tech innovation**

Both the Furman report and the government’s consultation raise the prospect that mergers may cause a reverse Kill Zone effect, and distort innovation toward products that are complements of big companies’ products, and away from products that might displace the incumbent altogether.\(^\text{34}\) This is not supported by any empirical evidence, and assumes that there is a fixed amount of tech innovation in an economy, which is implausible. While the prospect of being acquired may indeed lead more firms to engage in incremental product development, it does not reduce the expected returns from ‘transformative’ product development that could displace an incumbent. It might instead divert resources and talent from other parts of the economy into tech.

**Kill Zones are hard to prove ex Post**

The above study highlights the difficulty in proving the existence of Kill Zones due to acquisitions.\(^\text{35}\) The limited evidence they were able to provide would not be sufficient to motivate any policy. Indeed, the authors note the same in their conclusion. Identifying a Kill Zone in advance, ex ante, would be even harder, limiting the policy relevance of their finding. If this kind of concern motivates the CMA under a ‘realistic prospect’ standard, it further strengthens the danger that this becomes a de facto ban on acquisitions by SMS firms.

**POTENTIAL AND NASCENT COMPETITION**

The most important concern about acquisitions by tech incumbents is that they can be used to eliminate potential competitors that currently do not compete but could leverage their existing network in the future to compete

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potential that incumbents can identify better than competition enforcers.

As the Furman Review states ‘In mergers involving digital companies, the harms will often centre around the loss of potential competition, which the target company in an adjacent market may provide in the future, once their services develop.’ Facebook’s acquisition of Instagram is frequently cited as an example.

However, there are a range of issues with using this concern as a basis for a more restrictive merger regime.

**The theory can prove too much**

While doubtless this kind of behaviour is a risk, and competition enforcers should weigh potential competition as part of the range of considerations in any merger review, potential competition theories often prove too much. If one firm with a similar, but fundamentally different, product poses a potential threat to a purchaser, there may be many other firms with similar, but fundamentally different, products that do, too.

If Instagram posed a potential or nascent competitive threat to Facebook when Facebook acquired it, with its photo feed and social features, then so must other services with products that are clearly distinct from Facebook, but have social features; in which case Facebook faces potential competition from other services like Tiktok, Twitch, Youtube, Twitter and Snapchat, all of which have services that are at least as similar to Facebook’s as Instagram’s. In this case, the loss of a single, relatively small, potential competitor out of many cannot be counted as a significant loss for competition, since so many other potential and actual competitors remain.

The most compelling version of the potential and nascent competition argument is that offered by Steven Salop, who argues that since a monopolist’s profits will tend to exceed duopolists’ combined profits, a monopolist will normally be willing and able to buy a would-be competitor for more than the competitor would be able to earn if it entered the market and competed directly, and only earned duopoly profits.\(^{36}\)

While theoretically elegant, this model has limited use in understanding real world scenarios. First, it assumes that entry is only possible once — that after a monopolist purchases a would-be duopolist, it can breathe easy. But if repeat entry is possible, so that another firm can enter the market at some point after an acquisition has taken place, the monopolist will be engaged in a potentially endless series of acquisitions, sharing its monopoly profits with a succession of would-be duopolists until there is no monopoly profit left.

Second, the model does not predict what share of monopoly profits goes to the entrant compared to the monopolist — the entrant could hold out

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for almost the monopolist’s entire profit share, adjusted for the entrant’s expected success in becoming a duopolist. Third, apart from being a poor strategy for preserving monopoly profits — since these may largely accrue to the entrants, in this model — this could lead to stronger incentives for entry than in a scenario where the duopolists were left to compete with one another, leading to more startup formation and entry overall.

**KILLER ACQUISITIONS**

The last theory of harm looked at incumbents using mergers to acquire potential competitors and incorporate them into their own product, as with Facebook/Instagram or Google/Doubleclick. However, in some cases, incumbents may instead simply shut down the offerings of potential competitors post-merger, because they have products or pipelines that compete closely with their own. By eliminating these products and research lines, it is feared, ’Killer Acquisitions’ could harm consumers by eliminating would-be competitors and their products from the market, and eliminating an innovative rival.

One study into the pharmaceutical sector finds that around 6% of acquisitions every year in that sector bear the hallmarks of this kind of acquisition.37 The Furman Review states that as digital markets are ’also characterised by competition for the market and the centrality of innovation’ that ’detailed analysis of the digital sector, these results can be roughly informative.’38

Although there are some similarities between the digital and pharmaceutical sector, there are also key differences, which means that findings from the pharmaceutical sector are not directly applicable to the digital sector.

First, pharmaceutical products are highly regulated and must pass through a lengthy predetermined clinical trials process. As a result, incumbents have a clear view of the market for the next few years. By contrast, in digital markets, consumer behaviour shifts rapidly and products are highly differentiated (e.g. Instagram, Snapchat, TikTok, Twitter and Facebook are very different offerings but compete with each other).

Second, pharmaceutical products are protected by patents, which usually do not protect the distinguishing features of products on digital markets. On the contrary: many digital platforms have been criticised for copying the features of their competitors. The paper that identified ’killer acquisitions’ within pharma also found that the closer a patent was to expiry, the less likely an associated ’killer’ acquisition is. Without patent protection, it is not clear how viable a ’killer acquisition’ strategy is: whereas in pharma markets, the ability to copy the product of a ’killed’ firm may be limited, in digital markets, there is often nothing stopping a competitor or new entrant from replicating the acquired company’s product.


Third, acquisitions in tech are often acqui-hires, where a company is acquired in order to hire its workforce en masse. This would not harm innovation in the same way as a ‘killer’ acquisition, as the new employees would continue to produce R&D outputs.

Finally, it is unclear that identifying 6% of mergers as bearing the hallmarks of killer acquisitions requires a change in the merger--control regime. Competition authorities can learn from this experience and be better equipped to review mergers that may bear some of these hallmarks without needing to change the burden of proof needed to block the merger. Nor is it clear that the benefits of changing merger-control rules to prevent these 6% of potentially harmful mergers outweigh the costs of potentially preventing more benign mergers. The authors of the paper discussed above themselves acknowledge that the net welfare effects of the behaviour they identify are ambiguous, since the “killer acquisitions” may incentivise greater innovation by firms intending to be acquired.

**It is hard to identify a ‘killer acquisition’ in advance**

A study that examined 175 acquisitions by big tech firms between 2015 and 2017 found that only one met the definition of ‘killer’ acquisition — Facebook’s acquisition of a photo sharing app called Masquerade, which had raised just $1 million in funding before being acquired. If such acquisitions are indeed this rare in tech, then it bears remembering that the rarer an activity is, the greater the risk of overenforcement.

**Theories of harm considered**

All of the above theories of harm have merit, and should be considered carefully by the CMA (indeed, it is already doing so). Merger control in digital markets certainly requires alertness to new ways that competition can be undermined. But the existence of these possibilities does not by itself demonstrate that the current regime is not working. None of the proposed theories of harm imply that a lowered standard of proof is necessary.

**Conclusion and recommendations**

The government’s proposals rest on the assumption that a large number of anticompetitive deals are currently taking place involving SMS firms, and that giving the CMA discretionary power to block almost any deal it wants will be able to stop these without any commensurate cost in terms of accidentally stopping procompetitive deals.

These assumptions are baseless, and the risks involved can be illustrated through a simple thought experiment. Imagine that, each year, there are

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1,000 mergers and that regulators can identify anticompetitive mergers with 75% accuracy (that is, it gives the correct result, (competitive or anticompetitive,) three times out of four). If there were 250 anticompetitive mergers in a year, then we would see the same number of correct rulings whether or not the test was applied. If the test were applied, then we would see 187.5 false positives and 62.5 false negatives. If the test was not applied—i.e. the regulator allows all mergers to pass—then we would see 250 false negatives. Whether or not to apply the test would depend solely on whether or not we believed that false negatives (anticompetitive deals being cleared) harmed competition more than false positives (procompetitive deals being blocked).

Suppose, instead, that there were 100, not 250, anticompetitive mergers each year. In this case, doing nothing would produce 100 false negatives, while applying the 75% accurate test would generate 225 false positives and 25 false negatives. For the test to be worth applying, the cost of an anticompetitive deal passing would have to be more than twice as harmful than the cost of a procompetitive deal being blocked.

What this highlights is that weighing the cost of deterring procompetitive mergers against the benefit of stopping anticompetitive mergers is highly dependent on the accuracy of the competition authority's tests, the relative numbers of procompetitive and anticompetitive deals, and the relative harms of procompetitive deals being stopped and anticompetitive deals being allowed.

To support the proposed reform, one must have quite precise ideas about the number of, and harms from, anticompetitive deals that are currently being cleared because of the balance of probabilities standard. One must further believe that the CMA is capable of identifying these deals accurately, even though it cannot demonstrate that they are more likely than not to lessen competition, and that it can do this without stopping more procompetitive deals than make this worthwhile.

This seems implausible, and the government has given little evidence that this is the case. Nor is it clear what the CMA ought to do in cases where there is a ‘realistic prospect’ of a deal lessening competition, but it is more likely than not — and perhaps very likely — that the deal will strengthen competition. In a case where there is an 80% probability that the deal will be procompetitive, and a 20% probability that it is anticompetitive — surely a ‘realistic prospect’ of lessening competition, even if it is far more likely that it will strengthen it — the current proposals appear to require the CMA to block it. The same is true for any other standard below the one currently used.

The government’s analysis of M&A has focused almost exclusively on the static benefits of procompetitive deals, and ignored the dynamic benefits. We believe that, when things like the effect on startup formation and inter-platform competition are considered, the case for a stricter anti-takeover regime becomes fatally weaker.
As we have argued, the proposed regime would likely lead to a reduction in competition in the UK’s tech sector, both directly by blocking procompetitive deals and indirectly by making the UK less hospitable to startups. And the current proposals, envisaged to only encompass a few companies, may in time grow to apply to more and more businesses across the economy, including companies whose success is vital to the long-term health of the British economy.

Instead, the government should consider a more moderate approach that retains the balance of probabilities approach, but that attempts to drive competition by supporting startups and entrepreneurs, and gives the CMA the tools it needs to do the best job it can within the existing burden of proof.

Most importantly, any lowered burden of proof for SMS firms ought to be restricted to mergers that relate to the activity or activities given SMS designation, not the firms as a whole. This measure would limit the harms to inter-platform competition that the proposals would otherwise create, allowing firms to use M&A to move into new markets to compete with other platforms.

To better facilitate entry and increase competitive pressures within digital markets, the government should look at measures to increase the availability of growth capital. In practice, this would mean both preserving and streamlining the suite of tax breaks designed to support venture capital such as EIS, SEIS, and VCT, as well as unlocking more of the £1tn invested in defined-contribution pension schemes for investment in venture capital. The treatment of stock options is another key driver of startup formation and venture capital investment. At Budget 2020, the Chancellor announced the Treasury ‘review the Enterprise Management Incentives (EMI) scheme to ensure it provides support for high-growth companies to recruit and retain the best talent.’ One way to modernise the scheme and keep pace with reforms taking place elsewhere in Europe would be to increase the current limits from a £30M asset capitalisation to £100M, and from 250 to 500 employees.

In terms of the CMA’s ability to act, lowered notification thresholds and mandatory merger notifications for SMS firms, and extra resourcing for the CMA to bring the cases it believes may threaten competition, should all help the agency to monitor and challenge potentially problematic deals. It is vital that the CMA be equipped to challenge deals that are potentially anticompetitive — where the government’s proposals are problematic is in creating an assumption that nearly all mergers involving certain firms are anticompetitive, when neither theory nor evidence support this.

“The proposed regime would likely lead to a reduction in competition in the UK’s tech sector, both directly by blocking procompetitive deals and indirectly by making the UK less hospitable to startups.”

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40 For a detailed explanation of reforms to increase the availability of seed and growth capital, see: Sam Dumitriu. (2020). Unlocking Growth. The Entrepreneurs Network and Enterprise Trust.


Competition enforcement is a vital part of healthy, dynamic markets. But it carries significant risks if it is overused, and there is a risk that some in government are seizing on it not because it is the best tool for strengthening Britain’s technology sector, but because it is the closest one to hand.

The UK’s tech sector is in rude health. Since 2011, VC investment has grown sevenfold, and the number of investment deals in UK startups has quadrupled.44 In an economy that has faced challenges from Brexit and Covid, it is a rare economic bright spot. The proposals the government is considering jeopardise this sector, and would likely weaken competition and harm consumers in the process.
