



Computer & Communications Industry Association (CCIA) Response to the CMA's consultation on Updates to the CMA's Merger Assessment Guidelines 8 January 2020

1. Introduction

The Computer and Communications Industry Association (CCIA) welcomes the opportunity to submit comments on the Competition and Markets Authority's ("CMA") consultation on "Updates to the CMA's Merger Assessment Guidelines",¹ and on the "Draft Revised Merger Assessment Guidelines" (referred to herein as the "Proposed Guidelines").²

CCIA is an international, not-for-profit trade association representing a broad cross section of communications and technology firms.³ For nearly fifty years, CCIA has promoted open markets, open systems, and open networks.⁴

Mergers involving digitally enabled markets require careful assessment.⁵ In particular, the assessment of overlaps and competitive constraints which may have an impact on the CMA's analysis requires updating in light of the development of the digital economy. The focus of this contribution is (Section 1) the relationship between market definition and market power, (Section 2) the concept of so-called "killer acquisitions", (Section 3) the broader analysis of two-sided platforms, including considerations over the significance of network effects and the risks of market tipping, and (Section 4) the assessment of evidence.

2. The Relationship between Market Definition and Market Power

Any finding of a Significant Lessening of Competition (SLC) cannot arise in a vacuum. The law prescribes that an SLC has to arise within a particular market context.⁶ Defining markets, however, should not be "an end in itself."⁷ Market definition is "a tool for the competitive assessment, not a substitute for it."⁸ Digital products and services represent particular challenges

¹ CMA "Open Consultation: Updates to the CMA's Merger Assessment Guidelines (CMA129)" (17 November 2020), available [here](#).

² CMA "Draft Revised Merger Assessment Guidelines" (November 2020), available [here](#) ("Proposed Guidelines"),

³ A complete list of CCIA's members can be found here: <http://www.cciagnet.org/about/members/>.

⁴ A complete summary of CCIA's mission statement can be found here: <http://www.cciagnet.org/about/ccias-mission/>.

⁵ Digitally enabled markets include the wide range of economic activities facilitated by digital technologies.

⁶ See Enterprise Act 2002, Sections 22 and 35 for completed mergers, Sections 33 and 36 for anticipated mergers available [here](#).

⁷ Proposed Guidelines, para. 9.4.

⁸ M. Monti "Policy Market Definition As A Cornerstone of EU Competition Policy" (5 October 2001), available [here](#).

for the traditional market definition tool. With digital products and services, the boundaries of the market are blurred and innovation often makes it difficult to understand where one market ends and where another one begins.⁹ For example, within the context of online marketplaces the Report of the Digital Competition Expert Panel “Unlocking Digital Competition” (“Furman Report”) has emphasised the importance of “potential competition, which the target company in an adjacent market may provide in the future, once their services develop.”¹⁰ Similarly in the EU, the Crémer Report notes that “it should be remembered that the importance of market definition, and the methodologies developed for identifying it, were built for standard goods and services. In the digital world, it is less clear that we can identify well-defined markets.”¹¹ The failure to properly assess market dynamics and competitive constraints could lead to both Type I and Type II errors in merger control assessment.

In this respect, CCIA welcomes the CMA’s ongoing efforts to address the shortcomings of an approach focused on strict product and service market definitions, its move towards a more thorough assessment of competitive dynamics, and related changes in the Proposed Guidelines. While demand-side substitution should continue to be the starting point for market definition,¹² CCIA submits that the CMA’s assessments could be improved by a balanced approach to demand-side and supply-side substitution in respect of digital products and services.

a. Demand-side substitution in digital

CCIA supports the focus of the Proposed Guidelines on the “competitive assessment as opposed to static market definition”¹³ and the overall competitive effects, including the “constraint posed by firms outside the market”.¹⁴ The Proposed Guidelines would thereby be consistent with the

⁹ J. Furman “Unlocking Digital Competition” (March 2019), available [here](#) (“Furman Report”), pg. 24 (“While intuitively simple, arriving at an agreed market definition is a matter of serious consideration in competition casework. It is hard to be definitive on what is in or out of scope without detailed work.”) Stigler Center “Committee on Digital Platforms, Final Report” (2019), available [here](#) (“Stigler Report”), pg. 91 (“Pinpointing the locus of competition and therefore the relevant market in which technology platforms compete can also be challenging because the markets are multisided and are often ones with which economists and lawyers have little experience. This complexity can make market definition another hurdle to effective enforcement. ... The problems are compounded by the facts that technologies surrounding the products’ functions in digital markets are continually changing and changes in quality-adjusted prices are difficult to observe.”)

¹⁰ Furman Report, para. 3.81. *See also* Stigler Report, pgs. 31, 32 (“Market definition will vary according to what consumers are substituting between, whether there is competition on the platform between complements, or competition between platforms, or competition between a platform and potential or nascent competitors regarding possible future markets.”), J. Crémer, Y.-A. de Montjoye, H. Schweitzer “Competition Policy for the Digital Era” (2019), available [here](#) (“Crémer Report”) pg. 47 (finding that “market definition can be problematic when “a dynamic market environment leads to fluid, quickly-changing relationships of substitutability and possibly partial overlaps of varying significance between different services, sometimes combined with practices of multi-homing and/or changing perceptions of consumer needs.”)

¹¹ Crémer Report, pg. 46.

¹² Proposed Guidelines, para. 9.7 (“The relevant product market is identified primarily by considering the response of customers to a small but significant increase in price (or equivalent reduction in the value offered to customers) on the products of the merger firms (demand-side substitution).”)

¹³ Proposed Guidelines, para. 9.2

¹⁴ Proposed Guidelines, para. 9.4

CMA's most recent practice,¹⁵ and better reflect broader changes resulting from digitisation and rapidly evolving consumer demand.

For example, CCIA recently made this point in comments it submitted as part of the CMA's investigation into Amazon's acquisition of a minority stake in Deliveroo.¹⁶ We noted that for the vast majority of customers of online food delivery intermediaries, competitively significant substitutes include direct delivery (via telephone or online options), personal shopper services (like Beelivery), driving to the restaurant or grocery for pick-up (or walking, cycling or taking public transportation), and (in the case of restaurant delivery) cooking at home or heating a ready-made meal.¹⁷ This was the case even though this included substitutes which were not perfectly identical to the Deliveroo business model. Similarly, in the mobility sector, digital technologies enable a wide and multi-modal range of options to fulfill consumers' transportation needs, including car, bike and scooter sharing, car-hailing, car-pooling, alongside the more traditional cycling, public transport and vehicle ownership. These intermediaries compete with providers of transportation services, both active online and offline. This market reality led to the Crémer Report acknowledging that "demand for cars is turning into a broader demand for mobility."¹⁸ Similarly, many companies, including social media, search engines, video-streaming services, newspapers, TVs all compete for users' time and attention, and could be described "as operating in the attention market, whereby they provide valued services in exchange for their users' time and attention."¹⁹ In retail, customers switch between online marketplaces, offline shopping malls and specialised stores, online specialised stores, and direct-to-consumer retail services.²⁰

Recognising the broader ecosystem in which imperfect substitutes compete will help improve the accuracy of the CMA's decisions. Assessing demand substitution should therefore focus on 'effective alternatives' and not 'perfect substitutes'. The Proposed Guidelines represent a significant step in the right direction but further work could be done to ensure that the competitive assessment takes into account all competitive constraints.

b. Supply-side substitution in digital

While the changes to the assessment of demand-side substitutability in the Proposed Guidelines are commendable, the CMA could do more to acknowledge the importance of supply-side

¹⁵ See e.g., CMA Final Report "Completed acquisition by PayPal Holdings, Inc. of iZettle AB" (12 June 2019), available [here](#), para. 5.4 ("In markets characterised by rapid growth and a significant degree of product development and innovation (which can be either incremental and drastic), the CMA is aware that the competitive constraint posed by a firm may not be captured by a 'snapshot' of its market position at any one time. For that reason, a fuller assessment is liable to provide greater insight on how the market dynamics will continue to develop over time.")

¹⁶ CCIA "CCIA's submission to the UK Competition & Markets Authority on the CMA's provisional findings in Amazon / Deliveroo" (11 May 2020), available [here](#).

¹⁷ CCIA "CCIA's submission to the UK Competition & Markets Authority on the CMA's provisional findings in Amazon / Deliveroo" (11 May 2020), available [here](#), Section 2a.

¹⁸ Crémer Report, pg. 47.

¹⁹ J. Furman "Unlocking digital competition" (March 2019), available [here](#), pg. 22.

²⁰ European Commission Final Report "Support studies for the evaluation of the VBER" (VVA, 2020), available [here](#), pg. 76.

substitution in digitally-enabled markets. In particular, CCIA submits that, contrary to the Proposed Guidelines, the boundaries of digitally enabled markets should not be defined “by reference to demand-side substitution alone.”²¹

Supply-side substitution has long been recognised as an important element of market definition and the assessment of competitive constraints.²² Supply-side substitution is particularly prevalent where products or services are software based. With software, it is comparably easy to add features or functionalities and compete with a wider range of substitutes. All this makes software-enabled markets particularly dynamic,²³ and is the reason that famed Silicon Valley investor Marc Andreessen has said that “software is eating the world.”²⁴ Narrow market definitions that do not account for the ease with which software-based substitutes can emerge are prone to underappreciate competitive constraints. CCIA submits that the Proposed Guidelines should consider more closely the competitive constraint of supply-side substitution. In this respect, CCIA agrees with the 2017 KPMG report prepared for the CMA on UK merger assessment which gave as one of its seven recommendations that the CMA pay more attention to “the likely success of suppliers with innovative products, when assessing how successful their expansion might be.”²⁵ This same point is echoed internationally. For example, the Crémer Report discusses as one possible solution to concerns around the efficacy of competition enforcement in the digital sector “*a broadening of the concept of potential competition to include all types of products and services that are, on the basis of their current functionalities, not yet close substitutes but could possibly expand in the future such as to become close competitors – e.g. because they serve similar user groups, the functionalities overlap and the markets are somewhat interlinked*”.²⁶ Failure to account for these competitive constraints could either result in overstating market power and increased risk of Type I errors, or overlooking competitive overlaps and increased risk of Type II errors.

Focusing predominantly on demand-side substitution fails to consider that innovative firms often compete aggressively against each other without offering direct substitutes in the sense of traditional product market definitions.²⁷ Demand side substitutability alone could overlook

²¹ Proposed Guidelines, para. 9.8.

²² See OFT, “Market definition” (2004), available [here](#), para. 3.17, Commission notice, “on the definition of relevant market for the purposes Community competition law” (1997), available [here](#), paras. 20-23, OFT, “Merger Assessment Guidelines” (September 2010), available [here](#), paras. 5.2.17-5.2.19.

²³ See UK Department for Business, Energy and Industrial Strategy Report “Dynamic Competition in Online Platforms” (March 2017), available [here](#), pg. 53 (“The extent to which new entrants not only enter the market but become among the largest players does seem distinctive. Other markets, e.g. trainers (see data above), cars, soft drinks, do not see this kind of regular change.”)

²⁴ M. Andreessen “Why Software Is Eating the World” (August 2011), available [here](#) (“software programming tools and Internet-based services make it easy to launch new global software-powered start-ups in many industries – without the need to invest in new infrastructure and train new employees.”)

²⁵ KPMG “Entry and Expansion in UK Merger Cases” (April 2017), available [here](#), pg. 9.

²⁶ Crémer Report, pg. 119.

²⁷ Expert Group for the Observatory on the Online Platform Economy, “Progress Report: Work stream on Measurement & Economic Indicators” (2020), available [here](#), pg. 12. (“On the conceptual side, established measures of firm size may not always be adequate. Revenues may not be a meaningful measure in markets where services are provided for free, or in exchange for data. Market share is often difficult to establish in fast-moving and nested vertical markets. The largest platform companies tend to be active across many different markets, creating extended data-driven ecosystems around their core activities, often cross-subsidizing one service with data or revenues from another. The challenges that this

potential overlaps between imperfect substitutes. It could also undercount the likelihood of future competition between digital products and services that may not be perfectly substitutable at present. In *Facebook/Instagram*, the CMA analysed the transaction from the perspective that Instagram was “complementary to social networks” even while acknowledging that it was “attractive to advertisers on a stand-alone basis.”²⁸ The CMA’s notice on market definition, acknowledges the need to carefully consider supply side substitutability.²⁹ A more holistic view of market definition and competitive constraints would facilitate decision making in the merger review context as well.³⁰

Competition in the digital space can occur between platforms, between platforms and complementors, or among complementors.³¹ Windows and its ecosystem of software complements are an instructive example. Windows offered an operating system (OS), which, from the perspective of the consumer cannot be substituted by a middleware. Java programmers offered middleware, which was compatible with Windows and provided common services and capabilities to applications outside of what was offered by the OS. Under a traditional analysis, middleware would be considered a separate product market.³² However, the rise of middleware threatened to shift value from OSs to programs built on middleware. Therefore, a non-substitutable “complement” exerted a significant competitive constraint on the relevant product market.³³ This constraint and threat of competition was so significant that Microsoft took actions that led it to be accused of exclusionary conduct in relation to Java.³⁴

In the ecosystems of connected cars competition is on multiple levels. Car manufacturers are constrained by ride-hailing providers, robotic vehicles companies, and telecommunication companies, which are pushing to monetise different parts of the ecosystem.³⁵ While the traditional notion of supply-side substitution may not be appropriate, in the sense that the telecommunications company or ride-hailing provider is not going to start supplying automobiles,

creates for defining platform size or establishing dominance are especially relevant to competition policy, and are being actively researched and debated in that domain.”)

²⁸ Office of Fair Trading “Anticipated acquisition by Facebook Inc of Instagram Inc.” (14 August 2012), available [here](#), para. 21.

²⁹ Competition Commission “Guidelines for market investigations: Their role, procedures, assessment and remedies” (April 2013), available [here](#), para. 133. (“The competitive assessment will take into account any relevant constraints from outside the market, segmentation within it, or other ways in which some constraints are more important than others.”)

³⁰ See e.g. Lear “Ex-post Assessment of Merger Control Decisions in Digital Markets” (9 May 2019), available [here](#) (“Lear Report”), para. I.161 (explaining that a proper assessment of future competition in digital markets “may require for instance to predict how companies will evolve their business model”).

³¹ N. Petit, D. Teece “Taking Ecosystems Competition Seriously in the Digital Economy” (OECD, 3 December 2020), available [here](#).

³² See e.g. European Commission “Case No COMP/M.5904 - SAP/ SYBASE” (20 July 2010), available [here](#), para. 42.

³³ A. Crane “Ecosystem Competition” (OECD, 28 October 2020), available [here](#), pg. 2 (“In the late 1990s, Microsoft Corporation competed with Java programmers and other technology companies over the future of middleware and operating systems. Middleware and operating systems were not substitutable products—a consumer would not choose to run a computer without an operating system and only use middleware—but middleware did threaten to commoditize operating systems and shift most differentiated value from operating systems to programs.”)

³⁴ European Commission “Case COMP/C-3/37.792 Microsoft” (24 March 2004), available [here](#).

³⁵ A. Crane “Ecosystem Competition” (OECD, 28 October 2020), available [here](#).

these ecosystem suppliers are each engaged in dynamic competition to generate and acquire part of the value of the ecosystem.

The CMA's recent merger practice shows the relevance of supply-side substitution in evaluating competitive constraints in markets driven by technological innovation. For example, in the Phase 1 decision of Amazon's acquisition of a share of Deliveroo, the CMA considered the possibility that Deliveroo may expand to start delivering non-food items.³⁶ In *Paypal/iZettle*, the CMA assessed competitive constraints from imperfect substitutes in omni-channel payment services.³⁷ In *Bottomline/Experian*, the CMA considered the competitive constraint imposed by future innovations.³⁸ This practice, and the learnings therein, should be reflected in the Proposed Guidelines, particularly where digitally enabled markets are concerned.

As the CMA has said, “[i]n cases where competition is not sufficiently considered, there is a higher risk that a regulatory measure could have major unintended impacts on competition and innovation in a market.”³⁹ CCIA urges the CMA to carefully consider all the different aspects of competition when assessing a merger. This is true equally for market definition as for the competitive assessment.

3. So-called “Killer Acquisitions”

Some have recently raised concerns around the concept of “killer acquisition” or “pre-emptive buyouts” in the technology sector.⁴⁰ The concept of killer acquisitions refers to acquisitions made by an incumbent to avoid the rise of a competitive force in the market by acquiring and then subsequently “killing” nascent competition. The Lear Report mentions that this phenomenon takes place in the pharma sector where “6.4% of all acquisitions are killer acquisitions.”⁴¹ The Lear Report further considers the recent European Commission’s decisions in the Bayer/Monsanto,⁴² Dow/DuPont,⁴³ and Medtronic/Covidien as relevant examples.⁴⁴ The Lear Report concludes, without evidence, that “[t]his may be especially problematic in digital markets.”⁴⁵ The CMA has also expressed concerns that acquisitions by large digital companies may be reducing incentives for market players to innovate.⁴⁶

³⁶ CMA “Anticipated Acquisition by Amazon Of a minority shareholding and certain rights in Deliveroo Decision on relevant merger situation and substantial lessening of competition” (11 December 2019), available [here](#), para. 15.

³⁷ CMA “Completed acquisition by PayPal Holdings, Inc. of iZettle AB Issues statement” (15 January 2019), available [here](#), para. 16.

³⁸ CMA “Completed acquisition by Bottomline Technologies (DE), Inc. of certain assets of Experian Limited” (8 November 2019), available [here](#), para. 48.

³⁹ CMA “Regulation and Competition. A Review of the Evidence” (January 2020), available [here](#), para. 1.21.

⁴⁰ Lear Report, pg. 34.

⁴¹ Lear Report, pg. 135.

⁴² European Commission “Case M.8084 – Bayer/Monsanto” (21 March 2018), available [here](#).

⁴³ European Commission “Case M.7932 – Dow/DuPont” (27 March 2017), available [here](#).

⁴⁴ European Commission “Case M.7326 - Medtronic/ Covidien” (28 November 2014), available [here](#).

⁴⁵ Lear Report, pg. 10.

⁴⁶ Digital Markets Task Force (CMA) “A new pro -competition regime for digital markets” (December 2020), available [here](#), para. 4.124, fn. 61.

Recently, some have proposed rules to prevent or limit the ability of technology companies to engage in small-scale acquisitions.⁴⁷ CCIA submits that the results of the analysis of the Lear Report in the pharma and agriculture sectors have not been verified in the digital sector, that the evidentiary base for such concerns is weak, and that delaying or prohibiting mergers and acquisitions of small-scale start-ups in the digital economy, absent evidence of likely harm, could reduce future innovation. A counterpoint to the view that acquisitions are a way to cut down on competition is that potential acquisitions are a *subsidy* to competitors, because the possibility of exit by acquisition creates investment incentives and lowers the cost of capital for new entrants. Accordingly, proposals to prohibit mergers overlook the many benefits that the current framework protects, particularly incentivising and facilitating innovation and new start-up formation.

It bears reminding that the vast majority of start-ups fail. This is normal. Acquisitions of innovative start-ups are “exit” opportunities for investors and founders. These kinds of exit opportunities mean that a founder, an engineer or programmer with particular skills, knows she can go start or join a new company without the opportunity-cost of failure, because even if she fails, there is a good chance she can get “hired” through acquisition at a bigger firm (sometimes referred to as “acquihires”).⁴⁸ The Silicon Valley Bank, a specialised investor in start-ups, for example, found in 2016 that the goal for 56% of start up founders was to be acquired.⁴⁹ What often happens then is the founder works at the bigger firm for a few years before then going out and starting a new business. If new rules increase the cost of failure by closing off exit opportunities, they would decrease the number of individuals willing to take that risk. Finally, this also decreases the purchase price of (failed) start-ups because there will be fewer buyers available to them. This is true even if small-scale acquisitions are merely delayed, because some start-ups are in a precarious financial position at the time of seeking a market exit, and would then be forced to take a lower price to a non-tech buyer to remove regulatory hurdles to the sale. This will decrease the amount of funding that is available from investors because the lower purchase price of the (failed) start-up means less upside (greater risk, and less reward). If start-ups are less profitable as investments (due to less ability to sell), they will attract less investment. Acquisitions thereby create opportunities for entrepreneurial risk and the rise of new and innovative products. In the US, the acquisition of small companies provides around two thirds of the capital for start-ups.⁵⁰

⁴⁷ See Digital Markets Task Force (CMA) “A new pro -competition regime for digital markets” (December 2020), available [here](#), para. 4.30. U.S. House of Representatives “Investigation of Competition in Digital Markets” (November 2020), available [here](#), pg. 388 (“recommends that Congress consider shifting presumptions for future acquisitions by the dominant platforms. Under this change, any acquisition by a dominant platform would be presumed anticompetitive unless the merging parties could show that the transaction was necessary for serving the public interest and that similar benefits could not be achieved through internal growth and expansion.”)

⁴⁸ Hiring a team that has already built a project together may deliver greater benefits than hiring engineers individually. Wharton School of Business “Startup Firm Acquisitions as a Human Resource Strategy for Innovation: The Acquire Phenomenon” (University of Pennsylvania, 2013), available [here](#), pg. 27.

⁴⁹ Silicon Valley Bank Press Release “Silicon Valley Bank Releases Startup Outlook 2016” (10 March 2016), available [here](#).

⁵⁰ ICLE “ICLE Final Report on the FTC Hearings on Competition & Consumer Protection in the 21st Century” (June 2019), available [here](#), pgs. 101-102.

Concerns around so-called “killer acquisitions” are not generally about “killing” competition, but about concerns that the acquisition will unlock the very efficiencies that are the rationale for the transaction in the first place.⁵¹ Empirical evidence on “14 mergers for which innovation was a central rationale of the transaction” found that “innovation benefits materialised in 12 of those cases.”⁵² Ex-post assessment of the Lear Report also found that such acquisitions have “likely resulted in efficiencies.”⁵³ These efficiencies are particularly relevant when the merger involves different levels of production and therefore allows a company to vertically integrate.⁵⁴ A recent economic analysis of policies which would target small-scale acquisitions suggests the effect of reducing innovation and variety of startups.⁵⁵ Accordingly, it would be more appropriate to label the recent concerns as one of “reverse-killer acquisitions”, where the resources and dynamic capabilities of the acquirer help the small-scale acquisition to rapidly expand and develop. The CMA should carefully consider how efforts to restrain the acquisition activities of large digital economy companies could inadvertently reduce innovation and future start-up formation in the UK.

4. The analysis of multi-sided platforms, tipping and network effects

The Proposed Guidelines devolve a section on the assessment of mergers involving Two-sided platforms (paras. 4.20 - 4.24). In particular, the Proposed Guidelines conclude that (i) Mergers are likely to induce a tipping effect; (ii) lost sales are more significant in the presence of network effects; and (iii) barriers to entry are likely to be high. CCIA supports the Proposed Guidelines emphasis on understanding these characteristics of the digital economy. However, the Proposed Guidelines appear to introduce a presumption that any merger involving network effects will likely give rise to competition concerns, regardless of the identity of the parties involved, the relevant market(s) and the relevant competitive dynamics. This would introduce a different standard of Significant Lessening of Competition (“SLC”) for mergers involving network effects, compared to the SLC standard applied to mergers between other companies. A more thorough and nuanced case-by-case assessment of multi-sided business models would facilitate better decision making.

a. Multi-sided business models

Multi-sided businesses operate under complex economic dynamics as they must consider the effects of their pricing and output decisions on both sets of customers, as well as the

⁵¹ “Killer acquisition” concerns generally are not raised in the context of e.g. Yahoo/Tumblr, Yahoo/Flickr, Microsoft/Nokia, Aol/TimeWarner or News Corp/Myspace.

⁵² OECD “Considering non-price effects in merger control—Background note by the Secretariat” (6 June 2018), available [here](#).

⁵³ Lear Report, pg. xiii.

⁵⁴ Copenhagen Economics “The Economic Rationale for Vertical Integration in the Tech Sector” (November 2020), available [here](#), pg. 5.

⁵⁵ I. Letina, A. Schmutzler, R. Seibel “Killer Acquisitions and Beyond: Policy Effects on Innovation Strategies” (University of Zurich, August 2020), available [here](#), pg. 14.

interrelationship among the customers on each side of their business.⁵⁶ One study of more than 250 platforms revealed that the single most important determinant of success was the correct balancing of the supply and demand-sides of the platforms.⁵⁷

Multi-sided firms create value by bringing market participants together. They help reduce practical barriers and transaction costs. But because many multi-sided firms work by facilitating interactions among diverse customer sets, the demand for the services that such a firm offers to each of its “sides” depends on the demand for the services it offers to its other sides. This interrelated demand has important consequences for antitrust analysis. It may lead multi-sided firms to set prices in ways that bear little resemblance to pricing by single-sided firms. And it means that seemingly small changes in demand on any side of the market could be amplified by corresponding changes on the other sides.

Consequently, any competition rules must account for the dynamics of multi-sided digital services. Without careful attention to the range of dynamics that multi-sided firms face in their operations, competition authorities could inadvertently discourage innovation.

Buyers and sellers often transact directly. Sometimes, though, without some intermediary, buyers and sellers may connect inefficiently or not at all. Economists have developed the concept of “multisided firms” as a way to describe business models designed to solve these problems, whether they are familiar examples such as newspapers or shopping malls, or innovative new services like dating websites.⁵⁸ Multi-sided firms reduce or eliminate the practical barriers, or transaction costs, that would prevent a stamp seller in one place from connecting with a stamp collector in another.⁵⁹ In doing so, they create value “that would not exist (or would be much smaller) in [their] absence.”⁶⁰

Companies at the leading edge of technological innovation, including many of CCIA’s members, have harnessed technologies to serve multiple, interrelated sets of customers and offer valuable products and services to businesses and consumers alike. There is a wide range of business models that could be thought of as “multi-sided,” from Internet search engines, to video game platforms, to shopping malls—each with its own economic dynamics.

The multi-sided nature of some digital activities accentuates the need for merger control assessments to continue to focus on harm to customers and actual effects. Because many

⁵⁶ See *Ohio v. American Express Co. et al.*, Docket No. No. 16-1454 (25 June 2018). CCIA filed an amicus brief in this case, showing how antitrust analysis must account for the complexity of multi-sided markets. Enforcers should pursue enforcement actions only with a sound understanding of the business models at issue. See Brief of CCIA as Amicus Curiae, *Ohio v. American Express Co., et al.*, Docket No. 16-1454 (filed Jan. 23, 2018), available [here](#).

⁵⁷ See D. Yoffie, et al. “A Study of More Than 250 Platforms Reveals Why Most Fail” (Harvard Business Review, 2019), available [here](#) (“[a] platform often requires underwriting one side of the market to encourage the other side to participate. But knowing which side should get charged and which side should get subsidized may be the single most important strategic decision for any platform.”)

⁵⁸ See, e.g., D. Evans, R. Schmalensee “The Antitrust Analysis of Multisided Platform Businesses” (Oxford Handbook of International Antitrust Economics, R. Blair, D. Sokol, eds., 2015), available [here](#), pgs. 404, 405.

⁵⁹ See *id.*

⁶⁰ *Id.* at 409.

multi-sided firms generate value by facilitating transactions among their various customer sets, the demand for the services that a multi-sided firm offers to any one “side” depends not only on the characteristics of those services, but also on demand for the services offered to the other sides.⁶¹ Thus, such firms must not only cater to the individual needs of their various customers, but also manage the interrelationships between those needs. And this is the most important feature of platform services, that needs to be taken into account from a competition perspective. Changes that may reduce competition as between some subset of users may increase competition in the ecosystem as a whole. The assessment of a lessening of competition must therefore be done holistically.

The Proposed Guidelines, like the guidelines which they will replace, recognise that consumer interest and evidence of consumer harm should be at the heart of the analysis of any merger.⁶² CCIA supports the CMA’s continued focus on consumer harm when assessing the theories of harm behind any merger. In this respect, multi-sided markets require an analysis that accounts for potential or likely consumer harm assessed holistically across the relevant markets and users impacted by the transaction. Assessments that engage in only a partial analysis are likely to result in Type I and Type II errors.

b. Network effects and so-called “tipping”

While network effects are often cited as problematic, a more nuanced assessment is needed. For example, the Proposed Guidelines state that “Mergers may also award network effects to a platform with lower relative merit, and cause demand to ‘tip’ to that weaker platform.”⁶³ CCIA submits that concerns about excessive network effects and market “tipping” require careful and individual analysis in the context of digitally enabled markets.

First and foremost the presence of network effects suggests that the market is dynamic. As recognised by the OECD, “[network effects] make it easier for entrants offering a better service to displace incumbents quickly.”⁶⁴ This creates an added incentive for new entrants and incumbents alike to invest in disruptive technologies.⁶⁵ As the EU’s Joint Research Centre (“JRC”) notes,

⁶¹ See, e.g., L. Filistrucchi et al. “Market Definition in Two-Sided Markets: Theory and Practice” (J. Competition L. & Econ., 2014), available [here](#), pgs. 293, 296–97.

⁶² See OFT “Merger Assessment Guidelines” (September 2010), available [here](#), para. 4.1.3 (stating that the reason for prohibiting transactions that give rise to an SLC is that a “merger that gives rise to an SLC will be expected to lead to an adverse effect for customers. Evidence on likely adverse effects will therefore play a key role in assessing mergers.”); Proposed Guidelines, para. 1.3. (“The protection of the welfare of consumers is at the heart of what the CMA does, including its role with regard to merger control. Mergers have the potential to have a significant impact on consumers and their welfare, including an impact on the prices they pay for goods and services, and the range and quality of those goods and services that they have available to them. Consumer interest is taken into account at every stage of the CMA’s assessment of mergers, and is therefore implicit throughout these Guidelines, from considering the effect that any particular theory of harm might have on consumers, to weighing up relevant customer benefits that may arise as a result of a merger.”)

⁶³ Proposed Guidelines, para. 4.24.

⁶⁴ OECD “An Introduction to Online Platforms and Their Role in the Digital Transformation” (2019), available [here](#), pg. 25.

⁶⁵ J. L. Bower, C.M. Christensen “Disruptive Technologies: Catching the Wave” (Harvard Business Review, 1995), available [here](#).

“[d]igital markets are characterized by fast innovation, that can rebalance leadership and facilitate entry. Most big players cannot be complacent and have to constantly strive to preserve their positions by preventing other firms from innovating faster.”⁶⁶

In March 2017 the UK Department for Business, Energy and Industrial Strategy published a comprehensive study prepared independently by Europe Economics titled “Dynamic Competition in Online Platforms” (“DBEIS Report”),⁶⁷ which provided extensive evidence corroborating the findings of the OECD and the JRC. The DBEIS Report involved an in depth analysis of five different markets where digital platforms operate, specifically: search engines, short-term accommodation, music, price comparison websites (particularly those offering car insurance), social networks. The DBEIS Report found that while these markets are characterised by data and network effects,⁶⁸ these market characteristics only hampered competitors in limited circumstances. In the majority of cases, network effects rather tend to increase dynamic competition, as they give the incentives to invest in the creation of new networks.⁶⁹ The DBEIS Report found that the threat of losing market share compelled platform operators to compete aggressively.⁷⁰

Specifically, the DBEIS Report found that in all the markets considered (i) there has been significant entry the last years,⁷¹ (ii) new entrants are more likely in markets with a single large incumbent,⁷² and (iii) concentration did not reduce competition because it often ended up creating new “markets” which did not exist before.⁷³

⁶⁶ EC JRC Report “The Competitive Landscape of Online Platforms” (April 2017), available [here](#), pg. 7.

⁶⁷ UK Department for Business, Energy and Industrial Strategy Report “Dynamic Competition in Online Platforms” (March 2017), available [here](#).

⁶⁸ *Ibid.*, pg. 26.

⁶⁹ *Ibid.* pg. 28.

⁷⁰ *Ibid.*, pg. 64 (“the threat of losing market share, and therefore diminishing the network effects that make the platform attractive, often compels platforms to either offer a competitive service (e.g. they are not able to introduce a charge for users) or innovate in order to maintain their competitive position.”)

⁷¹ *Ibid.*, pg. 53 (“In the short-term accommodation sector, the most notable new entrant is Airbnb, which may in time become the largest platform in the sector. (a) In the music sector, Spotify grows rapidly relative to other platforms. More recently, Apple Music enters the market. (b) In the price comparison website sector, two new platforms launch more recently – Gocompare.com and comparethemarket.com. (c) In the social network sector, first Facebook, then Twitter, LinkedIn, Instagram and Pinterest all enter the market and become significant. These increases in market share result in corresponding substantial declines: (a) In the short-term accommodation sector, Expedia sees a steady decline relative to other platforms (b) In the music sector, iTunes declines steadily over time, to the point where Apple introduces a competitor to Spotify in the streaming market, Apple Music. (c) In the price comparison website sector, confused.com sees a decline relative to the newer entrants, particularly comparethemarket.com. (d) In the social network sector, Myspace in particular saw a dramatic decline in its market share to the point it became a niche platform.”)

⁷² *Ibid.*, pg. 54 (“There is no sense here that concentration reduces entry and the reverse appears more likely: new entrants are more likely in markets with a single large incumbent (or several large incumbents) than those with a number of competing incumbents. This supports a sense that network effects are encouraging competition for the market more than they are preventing entry.”); *Id.* (“we would expect that more concentrated markets would see few entrants (or, at least, those entrants would struggle to attain material market share). This does not appear to be the case.”)

⁷³ *Ibid.*, pg. 55 (“as these sectors grow and mature new innovations, which challenge incumbents, start to become different enough that they are regarded as separate sectors, different types of platform in the European Commission’s parlance, despite competing with each other. An obvious example would be the growth of social networks engines which compete with search engines both a platform for highly-targeted adverts (indeed, many social networks have much richer information about the users advertisers might reach than search engines) and as a means for users to find content relevant to their needs.”)

The DBEIS Report shows that the assessment of the competitive significance of network effects depends on several elements:

- **Multi-homing.** According to the DBEIS Report, “[t]he most important facet of a market could be the extent to which it is possible for users to multi-home.”⁷⁴ In the absence of contractual restraints, multi-homing is easy and network effects are limited when (i) the connection to the network is inexpensive, (ii) networks are easy to use, (iii) there are no capacity limitations on offering products or services on multiple platforms (i.e. no risk of being unable to fulfil multiple orders), and (iv) there are no sunk costs in using any particular platform.⁷⁵
- **Incremental network value.** The DBEIS Report found that in various circumstances, smaller networks can have a competitive advantage.⁷⁶ For example, smaller social networks may benefit from the appearance of exclusivity, and carry less spam or malicious content.⁷⁷ For a social network, adding a troll that disengages other users is counter-productive. In such circumstances, larger networks are at a competitive disadvantage and the incentive to improve the service (e.g. with better filtering and moderation tools) thereby increases, promoting dynamic competition.
- **Product differentiation and concentration.** The DBEIS Report found that the existence of one or more large incumbents made entry into the market more likely.⁷⁸ Nimble smaller companies address customer demands that aren’t met by the large incumbent. Twitter, LinkedIn, TikTok and Snapchat each solve a slightly different, but very much related problem. Similarly, where the supply-side of the market is more homogeneous, network effects and a greater variety of suppliers will offer less incremental value to customers on the demand side.
- **Countervailing value propositions.** The DBEIS Report found that network effects are less significant in cases where the platform generates value separate from the network value. This is particularly the case where the measure of value to one side of the multi-sided market is different than the other.⁷⁹ For example, despite the early mover advantages of

⁷⁴ DBEIS Report, pg. 29.

⁷⁵ *Id.*

⁷⁶ *Ibid.*, pg. 47 (“For example, Exclusivity might be part of the attraction to some users. Facebook might be less cool among younger users than newer networks, because of its increasing reach among older users. This might explain the strong growth of platforms such as Snapchat. Larger social networks might be flooded with dubious content, making a user feel that an investment in creating high-quality content is less likely to be rewarded. The sheer volume of comments on a popular YouTube video, for example, might discourage someone adding real value, as their contribution is likely to be lost in the crowd, to the point that the network is only attractive to those who lack other outlets (for good reason). In turn, users might find it harder to find good quality content. This might explain the growth of Pinterest, for example. Manipulation of social networks, e.g. attempts to message large number of users in order to trap them in some dubious scheme, might be targeted at larger networks.”)

⁷⁷ Such content may include: apps claiming to show users who has viewed their profile, misleading ads offering free goods or services, messages from people impersonating Facebook security or employees, etc.. *Ibid.*, pgs. 47-8.

⁷⁸ The DBEIS Report found that network effects encouraged entry even where a single large incumbent was present. *Ibid.*, pgs. 54, 55.

⁷⁹ *Ibid.*, pg. 29 (“Networks can attain critical mass by: providing a valued service which does not depend on the network (e.g. Instagram’s filters); leveraging an existing brand (e.g. Apple Music); or, in heterogeneous networks, by working directly to recruit one (normally more concentrated) side of the market, so the other (normally more dispersed) side of the market finds it attractive from the start (e.g. price comparison websites recruit insurers to attract consumers)”); *Ibid.*, pg. pg. 35. (“network effects [in accommodation platforms] are indirect, but in a different way to search engines. Customers do not generally have an interest in more customers taking part. (...) The consequences of the heterogeneity

Yahoo⁸⁰ and AltaVista⁸¹, Google Search grew in popularity due to its unique and useful method for ranking websites.⁸² By attracting users to one side of the platform, it was ultimately able to attract a different set of users (advertisers) to the other side.

- **User learning curve.** The DBEIS Report found that the existence of earlier networks may even make it easier for new social networks to enter the market. For example, an earlier network may create consumer awareness and help the new entrant navigating regulatory obstacles. That creates room for new entrants to differentiate themselves.⁸³

Even where network effects are competitively significant, they contain within them the key to the erosion of market power, and the continuing incentive to compete aggressively on the dimensions that matter to consumers. This is because of “reverse network effects”, where increasing size of a network makes it less valuable and the departure of some subset of users can lead to the wider collapse of the network.⁸⁴ This is in part due to the “signal-to-noise” ratio of a network, as more suppliers become available on a platform, it becomes harder for a platform operator to filter and rank content, and easier for suppliers to game the ranking system for their own benefit.⁸⁵ As digital intermediaries become larger, the necessary balancing of the many competing interests that generate ecosystem value and drive network effects,⁸⁶ becomes harder.

Market observers increasingly find evidence of vulnerable positions despite the presence of network effects.⁸⁷ Indeed, strong network effects can lead to the loss of market position as rapid as any viral user growth.⁸⁸ This creates an exciting opportunity for challengers seeking to dislodge

in this network is that firms can invest in convincing one side of the market (normally the more concentrated side) to take part and be patient, giving them at least some time to reach critical mass on the other side of the market.”)

⁸⁰ R. Stross “How Yahoo! Won The Search Wars” (Fortune, 2 March 1998), available [here](#).

⁸¹ C. Broadley “AltaVista Search Engine History Lesson for Internet Nerds” (5 August 2020), available [here](#).

⁸² S. Brin et L. Page “The Anatomy of a Large-Scale Hypertextual Web Search Engine” (April 1998), available [here](#).

⁸³ *Ibid.*, pg. 28.

⁸⁴ DBEIS Report, pg. 29.

⁸⁵ S. P. Choudary “Reverse Network Effects: Why Today’s Social Networks Can Fail as They Grow Larger” (WIRED, March 2014), available [here](#) (“Reverse network effects often cause a large and thriving network to implode. As a network scales, it’s ability to maintain a high signal-to-noise ratio is the leading indicator of its usefulness.”)

⁸⁶ P. Evans & A. Gawer, “The Rise of the Platform Enterprise: A Global Survey” (CGE, January 2016), available [here](#), pgs. 7, 19 (“Finally, there is the matter of governance of the platform ecosystem, which considers who has access to the platform, how to divide value between ecosystem members, and how to resolve conflicts or manage sometimes increasingly divergent objectives. The goal is to arrange complementors and consumer rules to create and sustain vibrant ecosystems. Policies must ensure value creation and also high-quality participation on the platform. At the same time, the right mix of incentives is required to encourage joining and good behavior.”; “All of this must be done recognizing that the platform leader is orchestrating free agents rather than directing employees in a hierarchical command-and-control structure.”)

⁸⁷ D. Coolican, L. Jin “The Dynamics of Network Effects” (Andreessen Horowitz, 13 December 2018), available [here](#) (“Instead of seeing winner-take-all markets, we’re seeing all kinds of network effects companies — from messaging apps to sneaker marketplaces — splitting markets among multiple players. Furthermore, even companies that appear to have initially won the market and seem to have established a deep moat — from dating apps to trading platforms — are struggling to maintain their position against copycats and new entrants.”)

⁸⁸ D. Evans, R. Schmalensee “Why Winner-Takes-All Thinking Doesn’t Apply to the Platform Economy” (Harvard Business Review, 4 May 2016), available [here](#) (“Experience also shows us that that network effects can also work in reverse, and destroy value with explosive speed. This has happened to many shopping malls. When consumer traffic drops a little, a few stores leave, the mall becomes less attractive. Then traffic reduces a little more, more stores leave, and the mall officially shutsters. Internet companies, such as MySpace in the U.S., and Orkut in Brazil and India, have suffered similar fates as well. These two social networks grew explosively and “won” the social networking market in their respective countries in the 2000s. But then some people shifted to Facebook, others followed, and both platforms

incumbents. In this respect, the DBEIS Report identifies several strategies that undertakings employ to effectively overcome strong network effects and the presence of incumbents:

- **Starting with a defined community.** For example, Facebook started at Harvard University. Although it had not reached a critical mass of users, it still had a high value for its users.⁸⁹
- **Offering valuable services which do not depend on mass.** For example, TikTok and Instagram both introduced unique media editing features that attracted users despite an initially small user base.⁹⁰
- **Convincing highly networked individuals to take part.** Highly networked individuals, like celebrities with a high number of followers, can easily help kickstart a social network, as happened with Twitter.⁹¹
- **Allow multi-homing.** If incumbent digital intermediaries don't allow multi-homing, this leaves room for new entrants to use multi-homing as a competitive advantage.⁹²
- **Compete for different niches.** For example, LoveHomeSwap, Onefinestay, and Couchsurfing were able to enter the market of short-term accommodation by competing with Booking.com (and later Airbnb) for similar but different market segments.⁹³ Bookshop.org competes with Amazon by providing terms tailored to independent booksellers.⁹⁴
- **Investing in more efficient infrastructure or business models.** For example, low-cost airlines enjoy lower legacy costs and newer fleets, which allows them to compete with legacy incumbents.⁹⁵
- **Creating new types of infrastructure or distribution models.** For example, online stores address the same needs as physical stores although their business models are different.⁹⁶ Similarly, Shopify competes with Amazon by giving retailers a different value proposition.⁹⁷ Airbnb and Uber have not created new markets as such, but have invented a new business model to deliver a traditional service.⁹⁸

CCIA supports the CMA's efforts to update its assessment tools to better account for the realities of the digital economy. CCIA submits that a careful and nuanced assessment of competitive dynamics, including network effects, would facilitate such efforts.

went into a nosedive. Orkut officially closed in September 2014. The little that's left of MySpace was purchased by Time, Inc. in February 2016 – which perhaps says it all.”)

⁸⁹ *Ibid.*, pg. 47.

⁹⁰ *Id.*

⁹¹ *Id.*

⁹² *Ibid.*, pg. 29.

⁹³ *Ibid.*, pg. 34.

⁹⁴ A. Flood “‘This is revolutionary’: new online bookshop unites indies to rival Amazon” (The Guardian, 2 November 2020), available [here](#).

⁹⁵ *Ibid.*, pg. 56.

⁹⁶ *Id.*

⁹⁷ See Y. Lu “Can Shopify Compete With Amazon Without Becoming Amazon?” (NYT, 24 November 2020), available [here](#). (“The story of Shopify’s rise, then, is in many ways a reaction to Amazon’s. It’s about a new generation of e-commerce merchants who want a shot at securing control by going out on their own. If the key to Amazon’s success has been to put the customer first, for Shopify the key has been to put the merchant first.”)

⁹⁸ OECD “An Introduction to Online Platforms and Their Role in the Digital Transformation” (2019), available [here](#), pg. 24. Note that by creating a marketplace for short-term rental of existing residential property, Airbnb has expanded the market beyond its traditional geographic confines to major cities and tourist attractions.

5. Assessment of Evidence

The Proposed Guidelines indicate that, in the context of sectors that are characterised by fast-moving technological and commercial developments, the CMA may place particular weight on evidence such as internal documents.⁹⁹

CCIA notes that internal documents are not necessarily good evidence of market definition and competitive constraints on the merging parties. Undertakings (including tech companies active in sectors characterised by fast-moving technological and commercial developments) usually have limited information imperfect market knowledge. This is particularly true in light of the supply-side substitution potential of competitors described above in Section 2. Internal documents provide only a limited and author-specific perspective on the wider ecosystem where competition takes place, and may use language without reference to its precise competition law definition. Also, companies may refer to ‘market’ in an imprecise way. Undue weight on the use of such terminology may lead to an overly restricted view of competition because it may not include all sources of competitive constraints in a relevant market (as properly defined). The CMA’s assessment should acknowledge the shortcomings inherent in overreliance on internal documents.

6. Conclusion

With merger control as with other enforcement tools, intervention in the dynamic digital economy risks unintended consequences when enforcers do not partake in a thorough and holistic assessment of competitive dynamics and market realities.

In this respect CCIA broadly supports the Draft Revised Merger Assessment Guidelines. However, the CMA could go even further in advancing its assessment of mergers and acquisitions in the digital economy. We hope this submission helps the CMA’s efforts in this direction.

Respectfully submitted,

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⁹⁹ Proposed Guidelines, para. 2.27 (“In the context of sectors that are characterised by fast-moving technological and commercial developments or assessments of potential, or dynamic effects that are particularly dependent on the evolution of competitive conditions, the types of evidence that are available to the CMA may be more restricted (for example, in many instances recent evidence from the pre-merger period will be a good indicator of future competitive conditions without the merger, however this is unlikely to be the case in nascent markets with dynamic effects). In such cases, the CMA may place particular weight on evidence such as internal documents, the expected number of competitors after the merger, similarities between the characteristics of the products or services that are under development, and the views and expansion plans of market participants.”) (emphasis added).