Macquarie Law School
Faculty of Arts
6 First Walk
Macquarie University NSW 2109

MACQUARIE University

Dr. Baskaran Balasingham
Email:
Telephone:

To: Australian Competition and Consumer Commission
By email: AdTechInquiry@accc.gov.au

Subject: Ad Tech Inquiry – Call for submissions

20 April 2020

In the Issues Paper for the inquiry into markets for the supply of digital advertising technology services (ad tech services) and digital advertising agency services (ad agency services) the Australian Competition and Consumer Commission (ACCC) invites interested parties to submit views and information to assist its inquiry. I respectfully submit my comments concerning the Issues Paper. My name is Baskaran Balasingham. I am a lecturer at the Macquarie Law School where I among other things teach and research competition law.

The Issues Paper states that one of the key issues of the inquiry is to examine the intensity of competition in markets for the supply of, and the efficiency of markets for the supply of, ad tech services and ad agency services. In that regard particular attention is paid to any concentration of market power in the hands of one or more suppliers of these services. The Issues Paper specifically asks for views on market structures as well as the role and use of data in these markets.

In my opinion, those two aspects are inextricable linked and should therefore not be considered separately. As elaborated in the attached working paper, data-driven network effects are the key characteristic in digital markets like the ad tech industry. Data-driven network effects stem from the scale, scope, and the spill-over effect of data. These effects may result in a positive feedback loop of gaining users and advertisers that can accelerate the process of a firm capturing the market (i.e. market tipping). Apart from leading to superior growth rates, data-driven network effects may constitute an insurmountable barrier to entry into the markets for ad tech services and ad agency services. If there are high switching costs in addition to network effects and economies of scale, potential entrants might be even more deterred to enter those markets as there is considerable uncertainty about recouping investment in R&D. It should also be noted that barriers to entry in those markets may not only be structural but also strategic.

I thank the ACCC for taking the time to consider this submission.

Please do not hesitate to contact me if you have any questions or queries.

Sincerely,

Baskaran Balasingham

Enclosure: Baskaran Balasingham and Hannah Jordan, 'Big Data and Competition Analysis under Australian Competition Law: Comeback if the Structuralist Approach?', Working Paper, 20 April 2020

Working Paper, 20 April 2020

Big Data and Competition Analysis under Australian Competition Law: Comeback of the Structuralist Approach?

Baskaran Balasingham[*] and Hannah Jordan

I. Introduction

Throughout the last 40-50 years we have seen significant changes to market structures, most notably in the area of high-technology industries. 'Old economy' manufacturing industries are on the decline, paving the way for a rise in industries in the 'platform economy'. The creation of digital platforms including search engines, social media and e-commerce platforms, has revolutionised almost everything we do, from the way we interact, to the way we shop, dine and travel. Around the turn of the millennium some competition scholars and antitrust agencies recognised a distinction between the 'old economy' industries in which modern competition legislation was first adopted in industrialised countries and 'new economy' high-technology industries that started to make big waves around the late 1970s. For example, the Trade Practices Act 1974 (TPA) [now the Competition and Consumer Act 2010 (CCA)], Australia's first effective competition legislation, entered into force before the first IBM computer came to market in 1981. Tech giants like IBM and Microsoft dominated during the '80s and '90s and eventually became the target of antitrust scrutiny. On 18 May 1998, when the US Department of Justice filed its complaint against Microsoft in the internet browser case, the two tech heavyweights of today, Google and Facebook, were not even founded yet. This essay proposes that the 'platform economy' is an even 'newer' economy. The defining characteristic of most markets of the digital economy[1] largely relates to the role of data which makes these markets distinct from others, and this poses challenges to competition law enforcement.

Competition assessment in Australia has for a long time been based on an evaluation of the market structure. In 1976, Australia's then Trade Practices Tribunal [now the Competition Tribunal] handed down its seminal decision in *Re Queensland Co-Operative Milling Association Ltd* ('*QCMA*').[2] In that decision the Tribunal stressed that to determine whether a market is operating competitively requires the examination of five elements of market structure. The five factors, which are now referred to as the 'QCMA factors',[3] can be summarised as: a) the degree of market concentration, b) the height of barriers to entry, c) the extent of product differentiation, d) the extent of vertical integration, and e) the nature of arrangement between firms.[4] These five factors are characteristic for traditional manufacturing industries of the 'old economy'. A closer look at the digital economy reveals that many high technology-based industries and markets have changed substantially. Nonetheless, the Australian Competition and Consumer Commission (ACCC) in its 2018

---

[*] Lecturer, Macquarie Law School, Macquarie University. This paper complies with the ASCOLA Transparency and Disclosure Declaration. We have nothing to disclose.

[1] This paper uses the terms 'digital economy' and 'platform economy' interchangeably.

[2] *Re Queensland Co-Operative Milling Association Ltd* (1976) 8 ALR 481.

[3] Maureen Brunt, *Economic Essays on Australian and New Zealand Competition Law* (Kluwer Law International, 2003) 316.

[4] *Re Queensland Co-Operative Milling Association Ltd*, 512 [40].

'Guidelines on misuse of market power' still refers to the QCMA factors as a relevant checklist for determining competitive constraints.[5]

The aim of this paper is to determine whether the QCMA factors remain an adequate structural framework for the assessment of competition in online markets. The paper proceeds as follows: the next section outlines Australia's legislation and the *QCMA* case to provide context to the current state of affairs relating to competition analysis in Australia. Section III distinguishes between the different types of the economy and explains why the 'platform economy' is distinct. Section IV looks at developments in relation to the assessment of competition in online markets and evaluates the relevance of each of the QCMA factors in the platform economy. Section V concludes.

II. The Structural Approach for the Assessment of Competition under the CCA

The Trade Practices Tribunal's 1976 decision in *QCMA* is a seminal one under Australian competition law. The case concerned the proposed acquisition by the applicants, QCMA and Defiance Holdings, of Barnes, a rival flour milling firm in Queensland. The Trade Practices Commission denied the merger, after which the applicants sought a review of this determination from the Trade Practices Tribunal.[6] The significance of the case lies in the Tribunal's discussion of the meaning and purpose of 'competition' as well as the meaning of 'market power' – a term that was not defined under the TPA. The Tribunal found:

> [w]hether firms compete is very much a matter of the structure of the markets in which they operate. The elements of market structure which we would stress as needing to be scanned in any case are these:
> a) the number and size distribution of independent sellers, especially the degree of market concentration;
> b) the height of barriers to entry, that is the ease with which new firms may enter and secure a viable market;
> c) the extent to which the products of the industry are characterised by extreme product differentiation and sales promotion;
> d) the character of 'vertical relationships' with customers and with suppliers and the extent of vertical integration; and
> e) the nature of any formal, stable and fundamental arrangements between firms which restrict their ability to function as independent entities.[7]

Market power comes from a lack of effective competitive constraint.[8] Scanning these five factors can help to determine whether a market is characterised by effective competition or whether one or more firms possess market power. There is a very noticeable linguistic and conceptual difference in relation to these factors between the Tribunal in *QCMA* and the ACCC in the updated 'Guidelines on misuse of market power' of 2018. The Tribunal's language explicitly says that these factors are elements of market structure and that need to be considered in any case. The ACCC, on the other hand, indicates that the list of factors in

---

[5] Australian Competition and Consumer Commission, *Guidelines on Misuse of Market Power* (31 August 2018), para. 2.15.
[6] *Re Queensland Co-Operative Milling Association Ltd* (1976) 8 ALR 481.
[7] *Ibid*, 512.
[8] See Carl Kaysen and Donald F. Turner, *Antitrust Policy: An Economic and Legal Analysis* (Harvard University Press, 1959) 75.

QCMA is discretionary and non-exhaustive.[9] In fact, the last three QCMA factors have not come up in many cases since *QCMA*. Furthermore, the ACCC omits any reference to market structure and only speaks of competitive constraint.

The Tribunal's explanation of 'competition' in *QCMA* highlights the structural aspects of competition.[10] Those five factors (elaborated below in Section IV) are sometimes referred to as the 'QCMA factors'. They are now one of the many factors courts may turn to when establishing the competitive constraints faced by a company.[11] The QCMA factors form a structural framework for assessing competition on a market.[12] This framework stems from the 'structure-conduct-performance (S-C-P) paradigm' paradigm) that was proposed by industrial organisation economists in the US in the 1950s and 1960s (also known as the 'Structuralist School').[13] The drafting of the TPA and Australian competition policy at that time was heavily influenced by US antitrust legislation.[14] The S-C-P paradigm implies that the structure of the market, particularly high concentration accompanied by high barriers to entry, dictate that firms in those markets will engage in certain types of conduct which would then lead to poor economic performance.[15] Unfavourable market structures including monopolies and oligopolies can use their existing market power to block new entrants;[16] and use their greater bargaining power against consumers and suppliers to raise prices and degrade quality while maintaining profits.[17]

In 1994, on the 20th anniversary of the TPA, Brunt commented that the Australian approach to the assessment of competition has been to use a truncated S-C-P approach that highlights the causal importance of market structure but that also goes to evidence on market conduct and performance.[18] The methodology is truncated only to the extent necessary to establish the existence of significant discretionary power and if so, whether it is sufficiently significant to qualify for a finding that is "substantial" as it is required by the TPA.[19]

More recently the Tribunal's analysis has gone beyond the *QCMA* factors. It explained that the old approach "has been overtaken by developments in economic theory and by empirical assessments of competition in modern markets which attest to the fact that [this causal flow from structure to conduct and then performance] is by no means the dominant mechanism to explain market behaviour."[20] Some commentators argue that this

---

[9] Australian Competition and Consumer Commission, *Guidelines on Misuse of Market Power* (31 August 2018), para. 2.15.

[10] See also *Queensland Wire Industries Pty Ltd v Broken Hill Pty Co Ltd* (1989) 167 CLR 177; Katharine Kemp, *Misuse of Market Power: Rationale and Reform* (CUP, 2018) 107.

[11] Section 50(3) CCA mentions nine factors that the ACCC must consider in any merger assessment.

[12] See Rhonda L. Smith and David K. Round, 'A Strategic Behaviour Approach to Evaluating Competitive Conduct' (1998) 5(1) *Agenda* 25, 25.

[13] George Raitt, 'Competition and efficiency effects in Europe, North America and Australia' (2016) 24 *Competition & Consumer Law Journal* 187, 189; Maureen Brunt, *Economic Essays on Australian and New Zealand Competition Law* (Kluwer Law International, 2003) 315.

[14] See Brunt (2003), 315; Russell V. Miller, *Miller's Australian Competition Law and Policy* (3rd edn., Thomson Reuters, 2018) 28.

[15] Joe S. Bain, *Industrial Organization* (2nd edn., Wiley, 1968); Kaysen and Turner (1959). See also Brunt (2003), 294.

[16] See Maureen Brunt, 'Economic Overview', Mimeograph, Lecture No 11, Monash Trade Practices Lectures, 1975.

[17] Lina M. Khan, 'Amazon's Antitrust Paradox' (2017) 126 *Yale Law Journal* 710, 718.

[18] Brunt (2003), 317-318.

[19] *Ibid*.

[20] *Re Application by Chime Communications Pty Ltd [No 3]* [2009] ACompT 4 (24 August 2009) [11].

broader approach takes into account market dynamic and firm behaviour by examining non-structural factors such as excess capacity, new sources of potential supply and the competitive nature of relevant market participants.[21] This shift reflects developments since the Chicago School and other schools of law and economic thought.

The Chicago School found mainstream acceptance in the 1970s and early 1980s. Chicago School commentators rejected the structuralist view and instead sought to apply insights of neoclassical price theory to antitrust analysis.[22] They presumed that market outcomes reflect the interplay of standalone market forces and the technical demands of production.[23] The focus of their analysis was on consumer welfare as the sole outcome of competition and not the competitive process. A key proposition made by Chicagoans is that the pursuit of economic efficiency (consisting of productive and allocative efficiency but not dynamic efficiency) should be the exclusive goal of competition law.[24]

The Post-Chicago School, which has grown out of the criticism of a range of aspects of the Chicago School, has gained significant influence since the mid-1980s.[25] While post-Chicago scholarship recognised the importance of efficiency and free markets, contrary to Chicago School it cautioned that markets were not automatically effective and placed greater emphasis on the strategic conduct of firms. They also relied less on reasoning derived from the neoclassical price theory but instead utilised game theory and new empirical tools. Beside the Post-Chicago School other notable scholarships include 'neo-Chicago' and behavioural antitrust.[26]

III. The Old, the New, and the Newest Economy

The QCMA factors were established almost 45 years ago. The economy at that time, not just in Australia, was fundamentally different to today's fast-paced and technologically-based economy. This section sets out the different stages of the transformation of the economy since *QCMA*.

A. The 'Old' Economy

In 1975, one year before the *QCMA* ruling, America's largest Fortune 500 corporations were Exxon Mobil, General Motors and Ford Motor.[27] Companies operating during this time period resided within the 'old' economy on which competition law analysis was founded. The old economy is generally considered to include industries that manufacture traditional goods such as steel and automobiles.[28] According to Posner the old economy has a clear set of defining characteristics including multi-plant and multi-firm production, stable markets, heavy capital investment, modest rates of innovation, and slow and infrequent entry and

---

[21] Caitlin Davies and Luke Wainscoat, 'Not Quite a Cartel: Applying the New Concerted Practices Prohibition' (2017) 25 *Competition and Consumer Law Journal* 173, 195. See also Lindsay Foster and Hanna Kaci, 'Concerted practices: A contravention without a definition' (2018) 26 *Competition and Consumer Law Journal* 1, 13

[22] See Andrew I. Gavil et al., Antitrust Law in Perspective: Cases, Concepts and Problems in Competition Policy (3rd edn., 2017, West Publishing) 71-72.

[23] Khan (2017), 719.

[24] Herbert Hovenkamp, *Principles of Antitrust* (West Academic Publishing, 2017) 48.

[25] Gavil et al. (2017), 75.

[26] Hovenkamp (2017), 52.

[27] Fortune 500, 'Fortune500 Company Search: A database of 50 years of FORTUNE's list of America's Largest Corporations', available at https://archive.fortune.com/magazines/fortune/fortune500_archive/full/1960/.

[28] Richard A. Posner, 'Antitrust in the New Economy' (2001) 68 *Antitrust Law Journal* 925**,** 926.

exit.[29] Whist it was possible for a potential competitor to enter a traditional industry market and displace an incumbent, those characteristics meant that the process for doing so was relatively slow, and required a level of innovation that was commonly absent or particularly slow in such industries.[30]

Based on the characteristics of traditional industries the focus on the five QCMA factors does not come as a surprise. In the absence of a statutory monopoly, those industries are characterised by competition *in the market*. In other words, the market leaves room for more than one company, and market shares indicate the economic strength of the actual competitors on the market. And those market shares may be relatively stable due to the existence of barriers to expansion and entry typically in the form of economies of scale and sunk costs.[31] *Melway*[32] is one Australian case in which the characteristics of the traditional economy were made clear. The High Court agreed with the trial judge that the Melway directory had substantial market power, holding in excess of 80-90 per cent of the retail market share in the relevant market.[33] Barriers to entry were considered to be substantial due to the methods required to produce and compile the street directories. The court noted it was 'neither rational nor likely' for a new entrant to enter the market unless a new form of technology was created.[34] The *Melway* example explains some of the key characteristics of a market in the traditional economy: substantial barriers to entry maintained by limited levels of innovation, and high costs of production which could lead to sunk costs in the event a new entrant was unsuccessful in competing effectively with the incumbent.

B. The 'New' Economy

The term 'new economy' is commonly used to refer to high-tech industries that generate high rates of innovation such as computer software and hardware, internet-based businesses, electronic communication, biotechnology and aerospace.[35] Software was the paradigmatic new economy product (until the recent emergence of Big Data) and the relevant product market in *Microsoft*. New economy industries typically lack many of the abovementioned features of the old economy,[36] and instead are often characterised by high rates of innovation, network effects, supply-side economies of scale, switching costs, and first-mover advantages.[37] A more distinctive characteristic, as noted by Evans and Schmalensee, is that "[in] many of these industries, firms engage in dynamic competition *for*

[29] *Ibid*.
[30] *Ibid*.
[31] See e.g. *Arnotts Ltd v. Trade Practices Commission* (1990) 24 FCR 313.
[32] *Melway Publishing Pty Ltd v. Robert Hicks Pty Ltd* (2001) 205 CLR 1.
[33] *Ibid* 11 [10].
[34] *Ibid*.
[35] Daniel Gifford and Robert Kudrle, 'Antitrust Approaches to Dynamically Competitive Industries in the United States and the European Union' (2011) 7 *Journal of Competition Law and Economics* 695, 695; Alison Jones and Brenda Sufrin, *EU Competition Law: Text, Cases, and Materials* (6th edn., OUP, 2016) 48.
[36] Posner (2001), 926.
[37] Antitrust Modernization Commission, *Report and Recommendations* (April 2007), 32-33; David S. Evans and Richard Schmalensee, 'Some Economic Aspects of Antitrust Analysis in Dynamically Competitive Industries' in Adam B. Jeffe et al. (eds.), *Innovation Policy and the Economy, Volume 2* (MIT Press, 2002) 8-13; Christian Ahlborn et al., 'Competition Policy in the New Economy: Is European Competition Law Up to the Challenge?'(*2001*) 5 *European Competition Law Review* 156, 158-161; J. Gregory Sidak and David J. Teece, 'Dynamic Competition in Antitrust Law' (2009) 4 *Journal of Competition Law and Economics* 581, 585.

the market – usually through research-and-development (R&D) competition to develop the 'killer' product, service or feature that will confer market leadership and thus diminish or eliminate actual or potential rivals."[38] In other words, the market has capacity for only one firm, and the market will tip towards that one firm whose product will become the standard. That one or more of those characteristics may be essential in the context of a new economy industry, however, does not mean that such characteristics never appear in other industries or that all of those characteristics always appear in new economy industries.[39] It rather suggests that those characteristics are critical in industries in which innovation, intellectual property, and technological change are central features.[40]

The Microsoft case triggered a debate among competition law commentators about the application of competition law to the new economy, and particularly the relationship between competition law and intellectual property rights. The US Department of Justice among other things alleged that Microsoft violated Section 1 of the Sherman Act by unlawfully tying its Internet Explorer to Windows and unlawfully maintained a monopoly position in the PC operating system market in violation of Section 2 of the Sherman Act. Microsoft disputed these allegations and contended that traditional antitrust concepts are not applicable to the new economy.[41] Microsoft argued that competition in a technologically dynamic market such as the PC operating system market is characterized by Schumpeterian competition in which firms compete through innovation for temporary market dominance until they are displaced by the next wave of product advancements. It was therefore not able to exercise market power as it was constrained by potential entrants.[42] A less extreme position around the time of the Microsoft trail suggested that as antitrust law must preserve the incentives for firms to innovate, the application of the rules to new economy should be altered to fully accommodate the dynamic competition in those markets.[43] On the other hand, some scholars argued that antitrust law was 'sufficiently supple' to adequately deal with new economy industries.[44] Noting the lack of consensus about the need for amendment of the monopolisation doctrine to account for competition in the new economy the D.C. Court of Appeals applied the conventional doctrine.[45]

C. The 'Newest' Economy

Since the Microsoft trials high-tech industries, and the IT industry in particular, have developed further rapidly. In 2011, Surblyte used the term 'newest economy' which relates

---

[38] Evans and Schmalensee (2002), 8-13; Damien Geradin et al., 'DG Comp's Discussion Paper on Article 82 Implications of the Proposed Framework and Antitrust Rules for Dynamically Competitive Industries' (2006), p. 12, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=894466.

[39] Antitrust Modernization Commission (2002), 33. See also Jonathan M Jacobson, 'Do We Need a 'New Economy' Exception for Antitrust?' (Fall 2001) *Antitrust* 89, 89.

[40] Antitrust Modernization Commission (2002), 33.

[41] *United States v. Microsoft Corp*, 253 F3d 34, 49-50.

[42] *Ibid*. See Howard A Shelanski and J Gregory Sidak, 'Antitrust Divestiture in Network Industries' (2001) 68 *University of Chicago Law Review* 1, 11-12.

[43] See Robert Pitofsky, 'Challenges to the New Economy: Issues at the Intersection of Antitrust and Intellectual Property' (2001) 68 *Antitrust Law Journal* 913, 916-917; J. Gregory Sidak, 'An Antitrust Rule for Software Integration' (2001) 18 *Yale Journal on Regulation* 1, 27. See also Geradin et al. (2006), 20-24.

[44] Posner (2001), 92.

[45] *United States v. Microsoft*, 49-50; Gifford and Kudrle (2011), 696. In the EU trial, the General Court also applied an unmodified approach to Article 102 TFEU.

to the latest shift in the computer industry, namely 'cloud computing'.[46] More broadly this economy can be said to comprise digital or online markets, and is most known for digital platforms, which is why it is often referred to as 'platform economy'.[47] The ACCC's Digital Platforms Inquiry has defined digital platforms as 'applications that serve multiple groups of users at once, providing value to each group based on the presence of other users.'[48] A characteristic feature of digital platforms is that they act as intermediaries between those user groups.

Enabled by the mobile Internet and heavily relying on the use of Big Data and algorithms, digital platforms started to take off at the end of the noughties,[49] and even more so since the launch of the smartphones. At the same time this era is also epitomised by the rise of 'GAFA' – an acronym that stands for Google, Apple, Facebook and Amazon.[50] The main products/services of Google (founded in 1998), Facebook (founded in 2004) and Amazon (founded in 1994) are non-hardware based and relate to things like search, social networking and e-commerce respectively. While Microsoft is still a large player in the IT industry, its market position in the platform economy (e.g. the search engine market) is nowhere near its dominance in the software market in the 1990s and early 2000s. And the 'antitrust troublemakers' of late are some of the aforementioned tech companies, first and foremost Google.[51]

Industries in the new and the platform economies are both driven by innovation and are characterised by competition for the market. Moreover, due to huge R&D costs, those industries typically exhibit supply-side economies of scale and scope. For example, a search engine entails substantial costs in developing a search algorithm, but the cost of transmitting search information to a single user is the same as to millions of users, thus giving rise to tremendous economies of scale. In addition, digital products and services use inputs that often enable economies of scope in product development.[52]

Similar to the discussion around the time of the Microsoft trial, some commentators are now debating again whether in relation to digital platforms antitrust doctrine is in need of an overhaul,[53] or even whether competition law is obsolete.[54] Unlike in the aftermath of

---

[46] See Gintare Surblyte, *The Refusal to Disclose Trade Secrets as an Abuse of Market Dominance – Microsoft and Beyond* (Stämpfli, 2011), 143.

[47] This paper uses the terms "platform economy" and "digital economy" to distinguish them from the "new economy".

[48] Australian Competition and Consumer Commission, Digital Platform Inquiry, Final Report (June 2019), 41.

[49] See Patrick Barwise and Leo Watkins, 'The Evolution of Digital Dominance: How and Why We Got to GAFA' in Martin Moore and Damian Tambini (eds.), *Digital Dominance: The Power of Google, Amazon, Facebook and Apple* (OUP 2018) 21, 22.

[50] *Ibid*. See also Farhad Manjoo, 'The Great Tech War of 2012: Apple, Facebook, Google, and Amazon battle for the future of the innovation economy', *Fast Company*, 19 October 2011, available at https://www.fastcompany.com/1784824/great-tech-war-2012.

[51] See e.g. the three separate decisions by the European Commission against Google between 2017 and 2019. See Benjamin Edelman and Damien Geradin, 'Android and competition law: exploring and assessing Google's practices in mobile' 12 European Competition Journal, 159, 159-160.

[52] Marc Bourreau and Alexandre de Streel, 'Digital Conglomerates and EU Competition Policy' (March 2019), p. 9, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3350512.

[53] Rupprecht Podszun, 'The More Technological Approach: Competition Law in the Digital Economy' in Gintare Surblyte (ed.), *Competition on the Internet* (Springer 2015), 101; Pablo Solani Díaz, 'EU Competition Law Needs to Install a Plug-in' (2017) 40 *World Competition* 393; Torsten Körber, 'Analoges Kartellrecht für digitale Märkte?' (2015) 65 *Wirtschaft und Wettbewerb* 120.

[54] Thomas Jaeger, 'Brauchen wir das Kartellrecht noch?' Kartellrechtsanwendung im digitalen Umfeld am Beispiel Google (2015) **65** *Wirtschaft und Wettbewerb* 702. See also Körber (2015), 120.

Microsoft, this time governments and antitrust agencies are more receptive to the idea that competition in digital markets might be different,[55] and as e.g. in the case of Germany, a few countries have already amended their competition laws accordingly.[56] One specific question is whether new factors should be taken into account when assessing the market structure of digital markets and the market power of players therein. Again, that one or more of the above characteristics are common to the platform economy does not suggest that such characteristics never appear in other industries, nor that all or most of them always apply to digital platforms.[57] Furthermore, it should be noted that platform companies can be very different from each other in terms of the markets they operate in and the effects of their activities on competition.[58]

It is submitted in this paper that the entirely different business model of most digital platforms, and in particular the role of data, makes their market structure decisively distinct from industries in the new economy, and therefore justifies a different competition analysis. Digital platforms typically operate by providing free services to consumers in exchange for consent to the collection of the users' personal data.[59] The data is then sold to third parties; primarily for the purposes of providing those same individuals with targeted and highly personalised online advertising.[60] Although data collection is often a by-product of the usual functioning of these platforms, it can create a competitive advantage for incumbents simply from having a large pool of data to access.[61] At the same time, platforms can use data as a sharable input to develop new products and services.[62]

The most characteristic features of the platform economy, and one closely connected to the collection of data, is the role of network effects. A network effect arises when value of a product or service increases with the number of users. The 'classic' type of network effects can also be seen in the old and the new economy. For instance, a telephone network's value increases to one person from other people also joining the network. Another type of network effect is a two- (or multi-)sided network effect. It was Microsoft's dominance in the software market that gave prominence to the economic theory of two-sided network effects.[63] Microsoft was alleged of using its large user base to encourage software developers and computer hardware manufacturers to focus their efforts on Microsoft's *Windows* Operating System. With an increasing number of software and

---

[55] See Autorité de la Concurrence and Bundeskartellamt, *Competition Law and Data*, Joint Report, 10 May 2016.

[56] See 9th Amendment of the German Competition Act.

[57] Cf. Antitrust Modernization Commission (2002), 33. See also Jonathan M. Jacobson, 'Do We Need a 'New Economy' Exception for Antitrust?' (Fall 2001) *Antitrust* 89, 89.

[58] Kenneth A. Bamberger and Orly Lobel, 'Platform Market Power' (2017) 32 *Berkeley Technology Law Journal* 1051, 1053.

[59] Inge Graef, *EU Competition Law, Data Protection and Online Platforms: Data as Essential Facility* (Kluwer Law International, 2016) 9-16; Antonio Capobianco and Anita Nyeso, 'Challenges for Competition Law Enforcement and Policy in the Digital Economy' (2018) 9 *Journal of European Competition Law and Practice* 19, 20; Lapo Filistrucchi et al., 'Market definition in two-sided markets: theory and practice' (2013) 10 *Journal of Competition Law and Economics* 293, 333.

[60] Graef (2016), 14; Rolf Weber, 'Competition Law Issues in the Online World' (Forum Paper, 20th St. Gallen International Competition Law Forum, 5 April 2013).

[61] Jacques Crémer et al., *Competition Policy for the Digital Era*, European Commission Report No B-1049, 4 April 2019, 24; See also Daniel L. Rubinfeld and Michal S. Gal, 'Access Barriers to Big Data' (2017) 59 *Arizona Law Review* 339, 357.

[62] Bourreau and de Streel (2019), 10.

[63] *United States v. Microsoft*, 49; Case T-201/04 *Microsoft v. Commission*, ECLI:EU:T:2007:289, para. 106.

hardware available for *Windows*, the operating system attracted more users, which in turn led to more software and computer hardware specific to *Windows*. This positive feedback loop can cause the market to tip and it becomes dominated by one firm. This 'winner takes all' effect helps to explain why in many new economy industries competition is *for* the market. According to Page and Lopatka "the new economic theory of network effects […] provided a lens through which Microsoft's victories over its rivals appeared anticompetitive. The development of the network effects theory parallels the development of the very software markets in which Microsoft competed."[64]

Markets in the platform economy exhibit classic and two-sided network effects too. For example, in the *Facebook/WhatsApp* merger[65] the European Commission considered classic network effects in the texting applications and the social networking product markets as the utility of one person using the product increases as others use the product.[66] Importantly, the role of data in the platform economy can result in network effects that extend beyond the type of network effects seen in the previous economies. Stucke and Grunes identify three 'data-driven network effects' that stem from the scale, scope, and the spill-over effect of data.[67] These data-driven network effects can be illustrated with the example of *Google Search*. The more people use this search engine, the larger the scale of Google's collected data which the company can then use to expand trial-and-error experiments allowing Google's search algorithm to enhance the relevance of its searches, thus attracting more users.[68] Additionally, Google's large scope of data (i.e. variety of data, which the company collects across its platform through its other service like *Google Maps* and *Gmail*, also allows the company to improve its search algorithm.[69] Furthermore, Google's collection of personal data has a spill-over effects into other sides of the market.[70] Google is significant for advertisers who buy collected personal data to run targeted ads. The company can invest this revenue to improve the quality of its search engine which will attract more users, and therefore more advertisers, eventually resulting in a virtuous circle. Finally, as elaborated in the next section, data-driven network effects motivate digital companies to adopt conglomeration strategies.[71]

IV. In Need for New Assessment Criteria in Online Markets?

In light of the profound differences between the old and the platform economy, the purpose of this section is to determine which of the QCMA factors are still relevant in the assessment of competition in online markets.

A. The Comeback of the Structuralist Approach in Online Markets

[64] William H. Page and John E. Lopatka, *The Microsoft Case: Antitrust, High Technology, and Consumer Welfare* (University of Chicago Press, 2007) 22.
[65] Case No COMP/M.7217 - *Facebook/WhatsApp* [2014] OJ C417/2.
[66] Maurice E. Stucke and Allen P. Grunes, *Big Data and Competition Policy* (OUP, 2016) 164.
[67] *Ibid*, 170-216. See also Jens Prüfer and Christoph Schottmuller, 'Competing with Big Data' (2017) TILEC Discussion Paper No. 2017-006, available at https://pure.uvt.nl/ws/portalfiles/portal/15514029/2017_007.pdf.
[68] Stucke and Grunes (2016), 170.
[69] *Ibid*, 188.
[70] *Ibid*.
[71] Bourreau and de Streel (2019), 11.

In Australia, and in other jurisdictions, there has been a debate in recent years about adopting new approaches to competition assessment in online markets.[72] This debate has largely been sparked by rapid growth and expansion of tech giants like Google, Facebook and Amazon. In the final report of the Digital Platform Inquiry the ACCC states that "[t]he pace of technological change needs to be matched by the pace of policy review. As digital markets and the use of data continue to grow and change, governments need to continue to consider the appropriate level of oversight."[73] In antitrust scholarship the dominance of Big Tech has also triggered another debate about the ideology of competition law.[74]

1. The Neo-Brandeisian School

For a long time the structuralist approach has been regarded as out of date and was eventually replaced by the Chicago and the Post-Chicago School thinking which has become known as the 'modern antitrust' doctrine in the US and in other jurisdictions.[75] However, in the past few years a movement referred to as the 'Neo-Brandeisian School',[76] emerged to criticise this modern antitrust doctrine and its failure to tackle the antitrust problems involving Big Tech.[77] Khan argues that the outcome-oriented consumer welfare approach "is inadequate to promote real competition, a failure that is amplified in the case of dominant online platforms."[78] This approach "equates harm entirely with whether a firm *chooses* to exercise its market power through price-based levers, while disregarding whether a firm has *developed* this power, distorting the competitive process in some other way."[79] Letting firms accumulate market power does not only make it more cumbersome to adequately check that power when it is eventually exercised, but these firms may also exploit their market power through non-price based anticompetitive practices.[80]

A concept that was widely accepted among the Structuralist School but later discredited by the Chicago School, and now highlighted by the Neo-Brandeisians is the conglomerate model.[81] A 'conglomerate' describes a company that consists of different and distinct parts that are under one roof and operate on neighbouring markets, offering non-substitutable products to the same group of customers. Industrial organisation economists were particularly wary of conglomerate mergers as they are more likely to increase

---

[72] See e.g. ACCC, Digital Platform Inquiry; Report of the UK Digital Competition Expert Panel, 'Unlocking Digital Competition' (March 2019); Crémer et al. (2019); Heike Schweitzer et al., 'Modernisierung der Missbrauchsaufsicht für marktmächtige Unternehmen', Projekt im Auftrag des Bundesministeriums für Wirtschaft und Energie (BMWi) Projekt Nr. 66/17 (29 August 2018).

[73] ACCC, Digital Platform Inquiry, 3.

[74] See e.g. Ariel Ezrachi and Maurice E. Stucke, 'The fight over antitrust's soul' (2019) 9 *Journal of European Competition Law & Practice 1; Sandra Marco Collino,* 'The Antitrust F Word: Fairness Considerations in Competition Law', The Chinese University of Hong Kong Faculty of Law Research Paper No. 2018-09, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3245865.

[75] See Raitt (2016), 189; Smith and Round (1998), 25; Herbert Hovenkamp, *Federal Antitrust Policy: The Law of competition and its Practice* (West Publishing, 2005) 42-47.

[76] Sometimes derogatively called 'hipster antitrust'.

[77] See e.g. Tim Wu, *The Curse of Bigness: Antitrust in the New Gilded Age* (Columbia Global Reports, 2018); Daniel A. Crane, 'How Much Brandeis Do the Neo-Brandeisians Want?' (2019) 64 *Antitrust Bulletin* 531

[78] Khan (2017), 744.

[79] *Ibid*, 745.

[80] *Ibid*.

[81] Yong Lim, 'Tech Wars: Return of the Conglomerate – Throwback or Dawn of a New Series for Competition in the Digital Era?' (2017), p. 3, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3051560.

concentration on particular markets, dampen competition and raise barriers to entry.[82] They are concerned that multi-market firms are able to shift supra-competitive profits from one market to another and may engage in predatory pricing, reciprocity or other exclusionary or predatory practices.[83] In addition, structuralists warn that conglomerates could wield non-economic power.[84] Chicagoans, on the other hand, argue that conglomeration theories and predatory pricing in particular are implausible and therefore highly unlikely.[85]

According to Lim the "return of the conglomerate model has coincided with an intriguing change in the nature of competition in the high-tech industry, particularly where platform businesses that harness network effects are involved."[86] In addition to the past conglomeration theories, Bourreau and de Streel attribute the emergence of digital conglomerates mainly to two characteristics of the platform economy: economies of scope in product development and product ecosystems.[87] From a supply-side perspective, the possibility of collecting large amounts of data on consumers, facilitated by the modular design of data, may incentivise digital companies to expand in other markets in order to acquire new data on unattached consumers or complementary data on attached consumers.[88] From a demand-side perspective, a product ecosystem can develop when firms create ties between their different products (even possibly unrelated products) to enhance the complementarity between them.[89] The expansion strategy could result in platforms becoming gatekeepers.[90] It also gives platforms an incentive to pre-emptively acquire start-ups who would pose a threat if they continued to grow.[91]

In light of the developments involving digital platforms and the inadequacy of price-based measures of competition to capture market dynamics, particularly given the role and use of data, Khan argues antitrust enforcement in online markets should focus on the competitive process and market structure.[92] She does not advocate a strict return to the S-C-P paradigm but rather claims that a competition analysis that ignores the role of structure is misguided since "the best guardian of competition is a competitive process, and whether a market is competitive is inextricably linked to – even if not solely determined by – how that market is structured."[93] The consideration of a more structuralist approach in practice as proposed by Khan involves an assessment of how a market is structured and whether a

---

[82] ABA Antitrust Section, Monograph No. 7, *Merger Standards under U.S. Antitrust Laws* (1981), 162.
[83] *Ibid*.
[84] See *ibid*, 167.
[85] See e.g. Robert H. Bork, *The Antitrust Paradox: A Policy at War with Itself* (Basic Books, 1978); Richard A. Posner, 'Conglomerate Mergers and Antitrust Policy: An Introduction' (1969) 44 *St. John's Law Review* 529.
[86] Lim (2017), 3. See also Nicolas Petit, '*Technology Giants, the Moligopoly Hypothesis and Holistic Competition: A Primer'* (2016), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2856502.
[87] Bourreau and de Streel (2019), 6.
[88] *Ibid*. Owing to the modularity of their product design, a digital output (e.g. a mapping service) can also be used as an input (e.g. for navigations systems).
[89] Bourreau and de Streel (2019), 11. For example, an Apple Watch can only be used together with an Apple iPhone and not with a smartphone from another manufacturer. This linkage between these two distinct but complementary products provides consumer with an additional benefit (a 'consumption synergy') when buying them together, even though the iPhone and the Apple Watch are not sold as a bundle by Apple.
[90] *Ibid*, 19; Schweitzer et al. (2018), 8 and 85.
[91] *Ibid*, 21; Lim (2017), 11.
[92] Khan (2017), 737.
[93] *Ibid*, 745.

single firm had obtained sufficient power to distort competitive outcomes.[94] This approach considers various factors that shed light on the neutrality of the competitive process and the openness of the market including entry barriers, conflicts of interest, and the emergence of gatekeepers or bottlenecks.[95]

2. Consideration of new structural elements and concepts

In 2017, the German legislator has taken onboard some of the above considerations in relation to the importance of market structure and the competitive process in the digital economy. The newly added section 18 (3a) GWB following the 9th amendment of the German Competition Act mandates competition authorities to explicitly consider the economic features of platforms. To that end the amendment introduced new platform-related market power criteria, namely (i) direct and indirect network effects, (ii) the parallel use of several services (multi-homing) and the effort for users coming from the change of services (switching costs), (iii) economies of scale connected to network effects, (iv) access to data relevant for competition, and (v) innovation-driven competitive pressure.[96]

Arguably the most relevant structural element in the platform economy are network effects, which is a stand-alone criterion in (i) and also features in (iii). A closer look at these five criteria reveals that not all of them are purely structural – and this also supports Khan's argument that competition assessment in the platform economy should not strictly return to the S-C-P paradigm. The innovation-driven competitive pressure is mainly a behavioural factor.[97] Nonetheless, it is possible that a dominant company's expansion to neighbouring markets may lead to a reduction of innovative capacity and dynamic competition.[98] Moreover, multi-homing and switching costs are a specific form of entry barrier and are not always structural but can also be strategic. Hence, similar to the Khan's argument, the 9th amendment does not fully return the S-C-P paradigm. While structural elements play a more significant role in online markets than in traditional markets, the strategic behaviour of firms should also be considered. For instance, the tipping of markets where strong network effects are present is often not the inevitable, 'natural' outcome of competition on the merits, but can be actively facilitated or induced by unilateral practices of individual companies, such as a targeted obstruction of multi-homing or switching.[99]

Despite the young history of the last amendment of the German Competition Act, the 10th amendment is already imminent.[100] A ministerial draft bill for the Competition Law Digitisation Act was published in January 2020. The bill includes two new provisions that catch anticompetitive practices by companies with 'paramount cross-market significance'. The new section 20 (3a) GWB is directed against structural distortions of competition that can occur if the market tips at a certain threshold because of a platform company's

---

[94] *Ibid*, 746.

[95] *Ibid*.

[96] See Oliver Budzinski and Annika Stöhr, 'Competition policy reform in Europe and Germany – institutional change in the light of digitization' (2019) 15 *European Competition Journal* 15, 33.

[97] As mentioned above, new sources of potential supply have been considered as behavioural constraints on market power.

[98] Schweitzer et al. (2018), 28.

[99] Heike Schweitzer et al., 'Modernising the law on abuse of market power', Report for the Federal Ministry of Economic Affairs and Energy (Germany), p. 7.

[100] Federal Ministry for Economic Affairs and Energy, Referentenentwurf eines Zehnten Gesetzes zur Änderung des Gesetzes gegen Wettbewerbsbeschränkungen für ein fokussiertes, proaktives und digitales Wettbewerbsrecht 4.0 (GWB-Digitalisierungsgesetz).

economies of scale. If rivals of firms with relative or superior market power are prevented from achieving economies of scale themselves, these practices may amount to unfair impediments. This provision is intended to keep markets open and prevent dominant positions.[101] The new section 19a GWB aims to cover the formation of digital ecosystems and to preclude platforms from strategically using their market position and economic power in certain markets to hinder competition in other markets. The rationale is to tackle problems that may occur when certain firms establish anti-competitive structures, e.g. in new markets, without necessarily being already dominant in all these markets.[102]

The draft bill also introduces a novel structural concept called 'intermediation power'. Digital platforms function as intermediaries between different user groups. Their mediation services can lead those users' dependency on those platforms. If there is a lack of alternatives, which may be the case e.g. due to network effects and high switching costs, those users are more likely to be subject to exploitative abuses by a dominant platform. Following the 10th amendment the subjective scope of application of the abuse of dominance prohibitions under Sections 19 and 20 GWB will extend to all types of competition-related dependency relationships.[103] Moreover, the structural concepts of vertical relationships, conglomeration and intermediation would all be covered by the German Competition Act.

B. How would the QCMA Factors fare in the Platform Economy?

Unlike e.g. in Germany, there a no immediate plans to introduce new assessment criteria that are tailored to the platform economy. It is therefore worth exploring how useful the QCMA factors are when applied to competition analysis in online markets.

1. The number and size distribution of independent sellers

Under Australian competition law, like in many other competition regimes, the number and size distribution of independent sellers, i.e. the degree of market concentration and market shares, are generally regarded as a first indicator of market power.[104] The lower the percentage of market share, the less likely it will be that the firm with the low percentage will have market power or at least market power at a substantial degree.[105] The traditional methodology for determining market power involves identifying *actual* competitors in a market, i.e. the companies currently operating in that particular market, and to determine

[101] Monopolkommission, '10th amendment to the Competition Act – meeting challenges in digital *and* regional markets!', Policy Brief, Issue 4, January 2020, p. 2.
[102] *Ibid*.
[103] *Ibid*., p. 3.
[104] See e.g. *Queensland Wire*, 189-190; *ACCC v. Universal Music* (2001) 115 FCR 442; [2001] FCA 1800, [381]; Case 85/76 *Hoffmann-La Roche v Commission*, ECLI:EU:C:1979:36, para. 275; European Commission, Guidance on the Commission's Enforcement Priorities in Applying Article 82 of the EC Treaty to Abusive Exclusionary Conduct by Dominant Undertakings [2009] OJ C45/2, para. 22, ('Guidance on the Commission's Enforcement Priorities')
[105] *ACCC v. Universal Music*, [412].

their respective market shares.[106] Yet, unlike in some jurisdictions,[107] there is no market share threshold for determining significant market power.[108]

In markets, including innovation markets, where a company has held a very large market share that is considerably larger than its rivals and maintained that position over many years, that company can be deemed to have substantial market power. In *Queensland Wire*, BHP produced nearly 97 per cent of the steel made in Australia and supplied about 85 per cent of Australia's requirements for steel and steel products. In *Google*, the European Commission found that market shares exceeding 90 per cent since at least 2008 indicated that Google's search engine held a dominant position in general internet search.[109] Similarly, in *Microsoft*, the US government relied on Microsoft's large and stable market share.[110]

Nonetheless, market shares are merely a first indicator and never conclusive on their own. In *Boral*,[111] Gleeson CJ and Callinan J said in relation to market concentration and its relevance that a "large market share may, or may not, give power. The presence or absence of barriers to entry into a market will ordinarily be vital."[112] In particular, in the new and platform economy market shares are a less reliable indicator of market power because market share figures only measure actual but not potential competition. Yet, in those markets incumbents may be constrained by potential competitors who have not yet entered the market but who would do so if a profitable opportunity were to arise.[113] In *Microsoft/Skype* the European Commission found that "market shares are not the best proxy to evaluate the market power of providers of consumer communication services and they only give a preliminary indication of the competitive situation in these dynamic markets."[114]

Furthermore, as noted in the 1993 Hilmer Report, a large number of competitors is not necessarily always optimal. Early economic work suggested that effective competition in a market requires many firms, each with a small market share. However, in some markets competition between a few large firms may yield more economic benefit than competition between a large number of small firms. Such oligopolistic competition may arise as a result of economies of scale and scope, not only in production but also in marketing, technology and, increasingly, in management.[115]

---

[106] *Ibid* 614.

[107] See e.g. the AKZO presumption of dominance under Article 102 TFEU where an undertaking has a market share of 50 per cent or more.

[108] Miller (2018), 257. It could be argued that under Australian competition law market shares play a less central role than e.g. under US antitrust law or EU competition law. In the US monopolisation is prohibited, while in the EU there is not only a market power threshold, but dominant companies also have a 'special responsibility. Under Australian competition law, on the other hand, more than one company can have substantial market power as stipulated in s 46(7).

[109] Case AT.39740 Google Search (Shopping) [2018] OJ C9/11, paras. 186-190.

[110] *US v. Microsoft*, 50. See also A. Douglas Melamed and Daniel L. Rubinfeld, 'U.S. v. Microsoft: Lessons Learned and Issues Raised', in Eleanor M. Fox and Daniel A. Crane (eds.), *Antitrust Stories* (Foundation Press, 2007) 287.

[111] *Boral Besser Masonry Ltd v. Australian Competition and Consumer Commission* (2003) 195 ALR 609.

[112] *Ibid* 635 [137] (Gleeson CJ and Callinan J).

[113] David Bailey and Laura E. John (eds.), *Bellamy & Child – European Union Law of Competition* (8th edn., OUP 2019), para. 10.022.

[114] Case COMP/M.6281 - *Microsoft/Skype* [2011] OJ C341/2, paras. 78 and 99. See also Case T-79/12 *Cisco Systems and Messagenet v. Commission*, ECLI:EU:T:2013:635, para. 52.

[115] National Competition Policy Review, 25 August 1993, ('Hilmer Report'), 3.

As stated above, competition in the digital economy is often characterised by competition *for* the market rather than competition *in* the market, and online markets therefore tend to be highly concentrated and are often dominated by one company. In addition, network effects result in a positive feedback loop which can accelerate the process of a firm capturing the market, i.e. these markets have a tendency towards tipping. Yet, despite a large market share a dominant platform is not immune to a relatively quick displacement by another company.[116] For example, whilst MySpace was initially the dominant social network platform, Facebook developed a social network platform that social media users viewed as objectively better, and Facebook took over the dominant market share relatively quickly as a result. On the flipside, due to the importance of network effects online markets can also quickly re-tip.[117] Market shares in online markets are thus more volatile than in traditional markets and the usual time period for deeming market shares to be stable is generally shorter. In light of the difficulty associated with network effects and market tipping, a new provision that addresses the largest platforms with superior growth rates in a market as mooted in relation to the 10th amendment of the German Competition Act as an alternative to market shares in online markets.[118] A similar provision would also be desirable under Australian competition law, especially since there is no market share threshold. Hence, regardless of whether a platform company has substantial market power, if it experiences superior growth rates compared to its competitors it would then be subject to closer antitrust scrutiny.

Another reason to be cautious of market concentration is its inherent dependence on market definition – a notoriously difficult exercise that has been criticised in more recent years.[119] In the digital economy, market definition is even more problematic. First, digital companies often offer free products and services which makes it hardly possibly to apply price-based test like the SSNIP test. Non-price based tests to define the relevant market are hardly workable, absent well-accepted, quantifiable metrics.[120] Secondly, since online markets are often multi-sided it is not sufficient to only look at the relevant market on which the defendant is operating.[121] It is necessary to pay close attention to network effects and how competition on related markets is impacted. Moreover, even if online markets could be defined accurately, the overall size of a company and conglomerate power aggregated on a number of related markets seem to be at least as relevant as a company's market share on the actual market that is under investigation.

Overall, even though the number and size of independent sellers continues to be a relevant factor in the platform economy it is not as relevant as they used to be in the traditional economy.

---

[116] David S. Evans et al., 'An Analysis of the Government's Economic Case in *U.S. v. Microsoft Corp*.' in David S. Evans (ed.), *Microsoft, Antitrust and the New Economy: Selected Essays* (Kluwer Academic Publishers, 2002) 29.

[117] Nicolas Petit, 'Are "FANGs" Monopolies? A Theory of Competition under Uncertainty', Working Paper, 10 October 2016, p. 22, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3414386.

[118] See Budzinski and Stöhr (2019), 40.

[119] See e.g. Louis Kaplow, 'Why (Ever) Define Markets?' (2010) 124 *Harvard Law Review* 437; Richard S. Markovits, 'Why One Should Never Define Markets or Use Market-Oriented Approaches to Analyze the Legality of Business Conduct Under U.S. Antitrust Law' (2012) 57 *Antitrust Bulletin* 747; R. Podszun, 'The pitfalls of market definition: towards an open and evolutionary concept' in Fabiana Di Porto and Rupprecht Podszun (eds.), *Abusive Practices in Competition Law* (Edward Elgar, 2018) 68.

[120] E.g. in cases where the quality of a product or service rather than price is decisive, competition authorities could probe a 'Small but Significant, Non-transitory Decline in Quality' (SSNDQ).

[121] See Filistrucchi et al. (2013), 300-303.

2. The height of barriers to entry

Barriers to entry have been defined as any advantage that allows an incumbent to earn above-normal profits without the threat of entry.[122] More broadly, barriers to entry (and expansion) describe any material difficulties that an incumbent's actual or potential competitors face when seeking to enter the market or expand within it.[123]

Barriers to entry, and not market shares, are the key to any assessment of market power.[124] A high market share may not be a reliable indicator of market power if barriers to entry are low since a new entrant might quickly take away market shares from the incumbent. Conversely, if barriers to entry are substantial, and new entry therefore less likely, a high market share will be a sign of market power.[125] In *Microsoft*, the trial judge found that the defendant's extremely large and stable market share of more than 90 per cent was sheltered by a high barrier to entry and hence indicative of market power.[126] In *QMCA,* the Tribunal identified the height of barriers to entry to be the most significant element of market structure:

> Of all these elements of market structure, no doubt the most important is (2), the condition of entry. For it is the ease with which firms may enter which establishes the possibilities of market concentration over time; and it is the threat of the entry of a new firm or a new plant into a market which operates as the ultimate regulator of competitive conduct.[127]

Since innovation markets are characterised by competition *for* the market, the number and size of sellers are less relevant than in traditional markets, and barriers to entry play an even larger role.

The height of barriers to entry is typically assessed by considering whether entry is likely, timely and sufficient.[128] For entry barriers to be considered low, a potential competitor's entry into the market must be likely as a matter of commercial reality, happen within a time horizon of three years, and not merely occur at the fringe of the market.[129] In light of the pace of innovation in the platform economy a shorter time horizon might be more appropriate. Simply put, the essential test for whether or not a significant barrier to entry exists is whether the threat of entry of whatever kind will constrain incumbents to behave competitively.[130]

---

[122] Joe S. Bain, *Barriers to New Competition: Their Character and Consequences in Manufacturing Industries* (Harvard University Press, 1956) 3.
[123] Bailey and John (2019), para. 10.031.
[124] Franklin M. Fisher, 'Diagnosing Monopoly' (1979) 19 *Quarterly Review of Economics and Business* 7, 18; Brunt (2003), 7.
[125] See *Queensland Wire*, 189-190.
[126] *US v. Microsoft,* 35.
[127] QCMA, 512. See also *Seven Network Ltd v News Ltd* (2009) 182 FCR 160; *Melway*, 67.
[128] See e.g. Guidance on the Commission's Enforcement, para. 16.
[129] Arlen Duke, *Corones' Competition Law in Australia* (7th edn, Thomson Reuters, 2019) 114-123. See also Brunt (2003), 263-264.
[130] Brunt (2003), 263.

Barriers to entry come in various forms and can generally be categorised into structural and strategic ones.[131] The former result from structural characteristics of the market and may include among other things regulatory requirements, access to essential facilities, intellectual property rights, economies of scale, and sunk costs.[132] Identifying structural barriers to entry is quintessential to the S-C-P paradigm. Strategic barriers to entry, on the other hand, stem from the deterrent activities by an incumbent to purposely hinder the possibilities of entry, as opposed to "innocent" entry barriers that unintentionally arise as a side effect of innocent profit maximisation.[133] Strategic barriers to entry exemplify the move from static economic models to dynamic market behaviour as advocated by post-Chicago scholars.[134]

Different types of barriers to entry may be relevant compared to the ones that more typically arise in traditional markets. It has been suggested that if competition authorities and courts consider only traditional barriers to entry, then they may falsely conclude that online markets are easy to enter.[135] Despite winner-takes-all competition, from a demand perspective (i.e. attracting users) barriers to entry in many online markets are low since apps and services are offered for free or a very low price and users can therefore in theory easily multi-home.[136] Yet, in reality high switching costs caused by positive network effects render multi-homing less likely.[137] For example, pre-installed apps on users' mobile phones can be a gateway barrier to entry. The status quo bias may lead users to use an app over a potentially more innovative rival app.[138] This raising of switching costs to hinder multi-homing constitutes a strategic entry barrier.[139] From a supply perspective many online markets lack entries barriers that are common to traditional markets such as land and raw materials. However, digital platforms face other forms of entry barriers, particularly with regard to the collection, storage, synthesis and analysis of data.[140] Certain type of data may therefore amount to an essential facility.[141] Privacy protection on the collection of data could be a common legal barrier to entry in the platform economy besides intellectual property rights.[142]

Network effects constitute by far the most significant barrier to entry in the platform economy. Network effect are common in the new economy, and the crucial role of barriers to entry for potential competition in relation to network effects was extensively discussed by the courts in *Microsoft*. However, as mentioned above, the three 'data-driven network

---

[131] *Re Chime Communications Pty Ltd* (No 2) [2009] ACompT 2, 51-53; Ray Steinwall, *Annotated Competition and Consumer Legislation* (LexisNexis Butterworths, 2018) 505; Miller (2018), 97.
[132] *Ibid*; *Arnotts*, 164; Guidance on the Commission's Enforcement Priorities, para. 17.
[133] Steven C. Salop, 'Strategic Entry Deterrence' (1979) 69 *American Economic Review* 335. The Tribunal in *Re Southern Cross Beverages* recognised this type of strategic barriers to entry (*Re Southern Cross Pty Ltd* (1981) 50 FLR 176, 206). See also *United Brands*, paras. 67-68.
[134] Duke (2019), 128-129.
[135] See Stucke and Grunes (2016), 200.
[136] See *Facebook/WhatsApp*, para. 109; Schweitzer et al. (2018), 60.
[137] Schweitzer et al. (2018), 28; Carl Shapiro and Hal R. Varian, *Information Rules: A Strategic Guide to Network Effects* (Harvard Business Review Press, 1998) 184-185.
[138] Rubinfeld and Gal (2017), 49.
[139] Schweitzer et al. (2018), 60.
[140] Rubinfeld and Gal (2017), 49.
[141] See e.g. Graef (2016).
[142] *Ibid*.

effects' that stem from the scale, scope, and the spill-over effect of data are unique to the platform economy.[143]

A barrier to entry that is relevant to both traditional and online markets are economies of scale. In *Queensland Wire*, Mason CJ and Wilson J observed "[w]here the economies of scale in a market are such that the minimum size for an efficient firm is very large relative to the size of the market, it may be that potential competitors will be dissuaded from entering the market by the apprehension that only one firm would survive."[144] In online markets economies of scale, especially when coupled with network effects, may constitute an almost insurmountable barrier as exemplified in the *Google Shopping* case. The European Commission first determined that a search engine requires significant investment into resources and that it would take a long time to recoup sunk costs.[145] Secondly, large volume of queries are necessary for a search engine to compete viably, i.e. achieve diminishing returns to scale once the search queries exceed a certain volume. Since costs in the digital economy become marginal once the platform is set up, an incumbent is able to retain its market power relative to a new entrant. Its revenue will also continue to increase as new users and advertisers join the platform. This advertising revenue can be used to further invest into R&D. This could possibly lead to a positive-feedback loop. Two-sided markets require new entrants to achieve growth on both sides of the market in order to compete effectively.[146]

If there are high switching costs on top of economies of scale and network effects, potential entrants might be even more deterred as there is considerable uncertainty in innovation markets about recouping investment in R&D. Since competition is for the market, a potential entrant's innovation must not just be a minor improvement. The innovation must rather be so substantial that people desert the incumbent and switch to the new entrant. In other words, the potential entrant must disrupt the market.

Barriers to entry remain the most significant QCMA factor in the platform economy. Many characteristics of the digital platforms – from network effects, to multi-sided markets and economies of scale – result in re-enforcing barriers to entry, as reflected in the new criteria added under Section 18 (3a) of the German Competition.[147]

3. Product Differentiation

Product differentiation denotes the ways in which firms seek to distinguish their products or services from those of their rivals in order to establish customer or brand loyalty.[148] Where products are similar, they exercise constrain on each other. On the contrary, product differentiation gives a firm a degree of control on the price of its product and is thus an indicator of market power. In addition, the preference of buyers attached to an existing brand (i.e. brand loyalty) creates a barrier to entry for new firms.[149] In *QCMA,* the Tribunal

[143] See above section III.C.
[144] *Queensland Wire*, 190 (Mason CJ and Wilson J).
[145] *Google Shopping*, 62-63.
[146] In the *Google Shopping* case the following findings stem from economies of scale connected to network effects: a number of companies have exited the search services market since 2007; smaller players have been unable to expand; there has only been one significant entrant to the market since 2007; and start-ups have failed to establish a substantial market presence.
[147] Rubinfeld and Gal (2017), 49.
[148] Stephen G. Corones, 'Applying an Effects Test Under s 46 of the Competition and Consumer Act' (Conference Paper, Bar Association QLD Event, 25 July 2016), p. 4.
[149] *Arnotts*, 164.

discussed that there was little product differentiation between the types of flour between the different firms.[150]

Since *QCMA*, new insights have altered our understanding of the implications of product differentiation on competition. Some of those insights are discussed in the Hilmer Report. First, the idea that firms provide identical products or services and compete mainly on price is the simplest notion of competition and the exception rather than the rule.[151] In practice, work in business strategy suggests that competition arises when firms seek to offer consumers different mixes of benefits, some of which are already reflected in price and others of which are reflected in non-price elements such as service, quality or timeliness of delivery.[152] Second, competition is not always between identical products or services. The essence of competition is the striving to meet the same consumer need and this is reflected in the ways in which this is met by different market participants.[153] Markets are also characterized by dynamic efficiency, i.e. the need for firms to make timely adjustments to their products in response to changes in consumer tastes and in productive opportunities.[154]

Dynamic efficiency is crucial in the platform economy and it arguably diminishes the role of product differentiation in some degree. Instead product imitation arguably plays a larger role than in the previous economies. Incumbent companies are generally wary of new entrants because they may challenge their market power. As explained above, in digital markets new entrants need to be highly innovative in order to displace an incumbent. Digital platforms compete on features, not price. Large platforms are often easily able to introduce new features that mimic popular features of their rivals. For example, Facebook's introduction of 'stories' to its social media platform was reminiscent of Snapchat's core feature – the creation and sharing of multimedia messages referred to as 'snaps'. For tech firms it is also relatively easy to remove a new feature if it is not well received by its users. The addition and removal of features on a digital platform is different to markets in the old economy where firms would more likely incur substantial sunk costs in the adaption of the production process as a consequence of when altering or updating a product. Moreover, it may be costly and time-consuming to reverse those changes. Similarly, tech start-ups may find it difficult to engage in product imitation as they might lack the necessary resources. Large platforms can use product differentiation, on the one hand, to build customer loyalty, and product imitation, on the other hand, to ward off smaller competitors. This strategy increases the likelihood of single-homing and users becoming locked in on a platform's ecosystem. Single-homing and user lock-in are reinforced when a digital platform is able to use data to individualise products and services according to each individual user's preference.

4. Vertical Relationships and Vertical Integration

A company that at first sight appears to have SMP because of its considerable market share whilst shielded by high barriers to entry may in fact not be dominant due to its vertical relationships with customers and suppliers. A powerful buyer, who makes up a significant share of the upstream company's sales, exercises competitive constraint over that company. If the upstream company were to raise the price of its product the buyer could

[150] *QCMA*, 520 (Woodward J).
[151] Hilmer Report, 3.
[152] *Ibid*.
[153] *Ibid*.
[154] *Ibid*, 4.

threaten to switch to one of the latter's competitors and the upstream company would probably not increase the price. Similarly, a company might be dependent on a powerful supplier that also exercises competitive constraint over it. An interesting vertical supply relationship in the platform economy can be seen between Google and Apple, who are competitors on some markets. Google is estimated to pay $9 billion for Apple to install Google Search as the default search engine on Apple's Safari web browser, up from $1 billion in 2014.[155]

In order to reduce dependence on upstream and/or downstream markets a company may opt to vertically integrate. Vertically integration arises when two or more successive stages of production and/or distribution are combined under the same control. A producer of goods or services can for instance carry out both the production and distribution functions itself, using its own employees or its own branches or through its wholly owned subsidiaries. Vertical integration may be vital for a platform company to gain more user data for better target advertising.[156] For example in 2014 Google bought smart gadgets maker Nest Labs for US$ 3.2 billion.[157] In 2018, Nest was merged into Google's home devices unit. The brand Google Nest now offers products such as smart assistants that are integrated with Google Search.

The integration of production and distribution processes as well as complementary products or services may ostensibly be considered as a pro-competitive efficiency. Yet, in some circumstances vertical integration may give rise to structural and strategic barriers to entry.[158] Vertical integration constitutes a structural barrier to entry for instance where a firm has access to an essential facility through its parent firm or subsidiary, while other firms seeking to enter the market or expand within it lack that possibility and are dependent their competitor's parent or subsidiary. In practice such a situation has often led to exclusionary abuses such as refusal to supply or margin squeeze.[159] In *Queensland Wire,* Mason CJ and Wilson J observed that vertical integration makes it possible for the monopoly company to discriminate, for instance in pricing between various users in the case of a distribution chain.[160] When a firm has developed a reputation for engaging in exclusionary practices this can amount to a strategic barrier to entry. In addition to exclusionary abuses, vertical integration can lead to exploitative abuses.

Even though production- and distribution chains are far less common in online markets, vertical integration is not completely unheard of. For example in 2019, the German FCO prohibited Facebook from making the use of the Facebook social network by private users residing in Germany, who also use its subsidiaries' services such as WhatsApp and Instagram, conditional on the collection of user and device-related data by Facebook and combining that information with the Facebook.com user accounts without the users'

---

[155] Lisa M. Segarra, 'Google to Pay Apple $12 Billion to Remain Safari's Default Search Engine in 2019: Report', *Fortune*, 30 September 2018, available at https://fortune.com/2018/09/29/google-apple-safari-search-engine/.

[156] See Schweitzer et al. (2018), 14.

[157] From 2015 to 2018, Nest was part of Google's parent company Alphabet and operated independently of Google. In 2018, Nest was merged into Google's home devices unit.

[158] See above.

[159] See e.g. *Queensland Wire*; *Melway*; *Universal Music*; *Taprobane Tours WA Pty Ltd v Singapore Airlines Ltd* (1990) 96 ALR 405.

[160] *Queensland Wire*, 190.

consent. The FCO deemed this to amount to an exploitative practice.[161] The ACCC has also recognised the potential anti-competitive effects of vertically integrated firms in the platform economy.[162] Hence, vertical relationships and vertical integration are still relevant in the digital economy, albeit less so than in previous economies. They allow digital companies to favour their own business interests above those of advertisers or other competing businesses,[163] for example through the practice of sharing competitively relevant data between parent companies and their subsidiaries. Besides vertical integration, a regulatory authority should pay close attention to conglomeration which appears to be more common structural characteristic in online markets than in more traditional markets.

5. Arrangements Between Firms

The fifth and last QCMA factor requires examining the nature of any formal, stable and fundamental arrangements between firms which restrict their ability to function as independent entities. This goes beyond determining whether a company is competitively constrained by vertical relationships with their customers or suppliers. If arrangements exist that restrict the ability of a firm to operate as an independent entity, then they need to be taken into account in assessing market power.[164] On the flipside, i.e. determining market power, the notion behind this QCMA factor is reflected in section 46(3) CCA. This provision captures inter-corporate relationships and arrangements that give rise to substantial market power. To that end, it allows the aggregation of market power between related bodies corporate.[165] In *TPC v Pioneer Concrete*,[166] the Commission argued that the defendant, as a subsidiary of Pioneer International Ltd and a member of the Pioneer International holding company, had substantial market power. The holding company gave Pioneer Concrete access to raw materials and the financial backing to sustain financial losses to maintain a substantial market share in all the pre-mixed concrete markets in Australia.[167] Both section 46(3) and the last QCMA factor can therefore be used to address conglomerate power. With regard to the application in the platform economy, it is conceivable that they can stop digital platforms from strategically using their own market position and economic power in certain markets to distort competition in the markets of their subsidiaries. This would be conceptually similar to the newly proposed section 19a of the German Competition Act which is meant to preclude digital ecosystems from strategically using their market position and economic power in certain markets to hinder competition in other markets.

V. Conclusion

Despite the criticism over the structuralist approach since the rise of the Chicago School, this approach is still not obsolete. Neo-Brandeisians strongly argue that structural factors and concepts should be considered in the assessment of competition in online markets. In Australia, the structuralist approach has been predicated on the five structural factors in the QCMA case. These five factors, sometimes referred to as the QCMA factors, concern market

[161] Bundeskartellamt, 'Facebook, Exploitative Business Terms Pursuant to Section 19(1) GWB for Inadequate Data Processing', Case Summary, 15 February 2019.
[162] ACCC, Digital Platform Inquiry, 138-139.
[163] *Ibid*.
[164] Duke (2019), 143.
[165] Section 4A(5) CCA for the purposes of the Act deems a holding company and its subsidiaries to be related bodies corporate.
[166] *Trade Practices Commission v. Pioneer Concrete (Qld) Pty Ltd* (1994) 50 FCR 160.
[167] *Ibid*, para. 14.

concentration; barriers to entry; product differentiation; vertical integration, and the nature of arrangement between firms. The QCMA factors were borne out of the old economy which was characterised by competition *in* the market. Already competition in high-technology markets of the 'new economy' raised question marks over the usefulness of antitrust principles that were developed in old economy times. Those markets are characterised by competition *for* the market. Nonetheless, competition regimes were not amended to reflect this new type of competition and the underlying structural and dynamic factors. While the 'newest economy' shares many characteristics with its predecessor, the role of data-driven network effects justifies the application of modified assessment approach in online markets, as for instance seen in the recent amendment of the German Competition Act.

The structural elements of the old economy industries in general and the QCMA factors specifically are still relevant in the platform economy, albeit in different ways. The first factor, market concentration, carries much less weight in the platform economy because companies generally compete *for* as opposed to *in* the market. This means that market shares are less relevant as digital markets are by nature very highly concentrated. *Potential* competitors are likely to be more of a threat than *actual* competitors. Barriers to entry which have long been recognised as the most important factor in any competition analysis thus play an even more crucial role in online markets. Data-driven network effects on their own and in combination with economies of scale may be the most significant barriers. Another reason why barriers to entry are the most important factor is that the concept can comprise a number of different types of barriers including the third and fourth QCMA factors, namely product differentiation as well as vertical relationships and integration. In the platform economy product differentiation is not be the only concern as product imitation might also be a barrier to entry, particularly when a platform is capable of using both product differentiation and product imitation as a strategy to encourage single-homing. While vertical relationships and integration are still a relevant factor in the platform economy, conglomeration also needs to be taken into account. Conglomeration, however, can also be addressed by the fifth QCMA factor which looks at arrangements between firms. The five *QCMA* factors are flexible enough to be applied in cases dealing with online markets. In any case, they are merely one set of factors Australian courts may turn to in order to assess competition on a market.