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ABSTRACT

There is presently an increased enthusiasm for competition law enforcement around the world, driven primarily by concerns about the power of digital platform companies. Against this background, this article identifies the emergence of a 'techno-conservatism' that invokes a 'rhetoric of innovation' to stymy the field's ongoing shift towards a more interventionist paradigm. Drawing parallels between techno-conservatism and twentieth-century Chicago school conservatism, the article holds that appeals to innovation are a means of deterring enforcement against dominant companies in dynamic markets. This article contests the rhetoric of innovation, maintaining that it is possible to reconcile strong enforcement with care for innovation. It does so by raising three points. First, innovation often arises from smaller companies and deconcentrated markets. Secondly, many of the innovations associated with technology companies often have their origins in the public sector. Thirdly, innovation is not innately beneficial. It is not enough to defend dominance simply by pointing to 'more innovation'; thought must also be given to the qualitative nature of that innovation. Taken together, these three ideas represent a useful framework with which to counter the rhetoric of innovation and defend the momentum building in competition law.

KEYWORDS: Competition law, innovation JEL CLASSIFICATIONS: A11, B25, B52, K21, L11, L40, 030

1. INTRODUCTION

Competition law is presently undergoing a period of turbulence, and possibly transformation. Its scope was minimised through the latter part of the twentieth century and the first decade of the new millennium. Especially in the United States (US), and also to a certain extent in the European Union (EU) and other jurisdictions globally, social and political goals were jettisoned in favour of a narrow focus on price and output effects.¹ Enforcement was timid under the consumer welfare standard, guided by a deference to monopoly power. Aside from horizontal agreements, corporate behaviour was invariably held to be efficiencyenhancing rather than anticompetitive. The field's traditional hostility to mergers and monopolistic practices was unwound. Leave large firms alone, it was argued, and consumers will

¹ See Eleanor M Fox, 'Modernization of Antitrust: A New Equilibrium' (1981) 66 Cornell L Rev 1140.

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benefit from low prices that they, through economics of scale and scope, can deliver. Competitive entry would be sufficient to stop firms benefitting unduly at the consumer's expense. Grounded in neoclassical price theory, this argument, originally advanced by members of the Chicago school, formed the basis of competition law for several decades starting in the 1970s. But no more. From around the Great Recession of 2007–2009, the consumer welfare standard started to lose its hold over the discipline.²

Particularly in the last decade, a body of evidence has emerged undermining the core tenets of this permissive approach to competition law. Conspicuously, market concentration has risen alongside lax enforcement, and with it the profit margins of firms in concentrated markets, indicating that the promised low prices have not been delivered.³ Now that competition law is waking up to the failures of the consumer welfare model, it is increasingly open to considering issues beyond price and output, including innovation, in addition to sustainability, fairness, and the political power that accompanies economic power.⁴ Enforcement is gathering momentum in this period of polycentricity, notably with major cases being brought against dominant firms in dynamic, innovation-centric markets, including the largest digital platforms (Alphabet, Amazon, Apple, Meta, and Microsoft).⁵ Intervention against these so-called Big Tech companies, frequently built around issues of innovation and dynamic efficiency, is emblematic of the wider movement in competition law towards a stricter paradigm.

This article highlights a paradox whereby innovation, while at the centre of the shift in the field, also poses a threat to the renewal of competition law. The article argues that a 'rhetoric of innovation' has emerged to counteract the realignment of competition law. A chorus of "but what about innovation?" reverberates around the field whenever a dominant firm is challenged, especially in the digital economy, premised on the idea that powerful companies are the world's greatest source of innovation. As Chicago school conservatives invoked low prices to deter enforcement in the middle of the twentieth century, a new generation of 'techno-conservatives' invoked innovation in a bid to protect corporations and their profits from government intrusion. The promise of large consumer welfare gains in the long term, generated by innovation, is used to undermine short-term consumer welfare concerns associated with concentrated economic power, as well as deeper critiques of competition law's monocentric focus on consumer welfare.

This article contests the rhetoric of innovation. It does so by highlighting three points demonstrating that vigorous competition law enforcement can sit alongside serious consideration for innovation. First, that innovation may arise from smaller companies and deconcentrated market structures. Secondly, that many of the innovations associated with dominant companies in fact have their origins in the public sector. Thirdly, that it is not enough to defend dominance simply by pointing to 'more innovation'; thought must also be given to the qualitative nature of that innovation. The first of these points is frequently raised in competition law discussions, while the latter two are more uncommon. By offering a multi-layered response, this article provides a framework with which to contest the rhetoric of innovation.

² See Maurice E Stucke, 'Reconsidering Antitrust's Goals' (2012) 53 BC L Review 551.

³ Germán Gutiérrez and Thomas Philippon, 'The Failure of Free Entry' (2019) NBER Working Paper 26001, <<u>https://www.nber.org/papers/w26001></u> accessed 5 January 2024; Jan De Loecker, Jan Eeckhout and Gabriel Unger, 'The Rise of Market Power and the Macroeconomic Implications' (2020) 135 Q J Econ 561; Matias Covarrubias, Germán Gutiérrez and Thomas Philippon, 'From Good to Bad Concentration? US Industries over the Past 30 Years' (2020) 34 NBER Macroecon Annu 1.

⁴ On the field's emergent polycentricity, see Ioannis Lianos, 'Polycentric Competition Law' (2018) 71 CLP 161.

⁵ For an overview of the recent Big Tech competition law cases, see Laurence Bary and Marion Lecole, 'Antitrust in the Digital Sector: An Overview of EU and National Case Law' (*Concurrences Antitrust Bulletin*, 30 June 2022); Blair Levin and Larry Downes, 'Microsoft, Google, and a New Era of Antitrust' (*Harvard Busines Review*, 17 February 2023).

This exercise raises the following question: how should competition law deal with innovation? The underlying position of the article is that competition law should not aim to promote innovation in and of itself. The prevalent idea that competition law should be instrumentalised to achieve specific goals—originally static efficiency, increasingly dynamic efficiency—is a legacy of the Chicago revolution and it is one that should be left behind. Competition law should remember its pre-Chicago concerns and focus on dispersing concentrations of capital, protecting competitive market structures, and ensuring market access for small and medium-sized enterprises. As explored in the article, dynamism likely benefits from contestable, deconcentrated markets, but the field should reject any attempt to instrumentalise competition law for any particular purpose, whether that is innovation or something else. The article does not elaborate on this position—this would require another publication altogether—but it is the normative background against which it should be understood.⁶

The article is organised as follows. Section 2 explores the rhetoric of innovation and the techno-conservative argument that enforcement should be tempered by an overarching concern for dynamic efficiency. Drawing on examples from American antitrust jurisprudence, Section 2 also highlights selected instances in which innovation rhetoric has influenced enforcement practice and case law. Section 3 argues that innovation and robust competition law enforcement may be reconciled through engagement with the three ideas raised above. Section 4 concludes.

2. THE RHETORIC OF INNOVATION

The Chicago school's antitrust agenda was 'seen as little better than a lunatic fringe' when it first emerged in the 1950s and 1960s.⁷ Yet, within a few decades, the consumer welfare standard came to dominate the discipline, at first in the US and later in other jurisdictions worldwide.⁸ In seeking to insert consumer welfare as the lodestar of competition law, the Chicago school made various interrelated arguments that would undermine the field's traditional inhospitality towards concentrations of private economic power: economic bigness should be welcomed rather than contested due to the low prices and static efficiency gains that arise alongside bigness; competitive entry is a powerful means of disciplining incumbents and overcoming anticompetitive issues; a proper understanding of economics would inevitably lead to a non-interventionalist approach to enforcement; the success of the wider economy is innately tied to the success of powerful corporations, especially in the context of competition from foreign firms (at that time, West German and Japanese firms).⁹ While modified to emphasise innovation and dynamic efficiency rather than low prices and static efficiency, the rhetoric of innovation invokes these same arguments to deter ongoing changes in competition law and defend the permissive consumer welfare standard.

Themes of innovation and dynamic efficiency started to gain ground in competition law in the 1990s and early 2000s with the emergence of the 'new economy', based around the internet and digital technologies. The 1995 Antitrust Guidelines for the Licensing of Intellectual Property, issued jointly by the US Department of Justice (DOJ) and the Federal Trade Commission (FTC), was the first guidance document to explicitly mention innovation, coining the term 'innovation market' to describe 'markets for technology or markets for

⁶ For discussion of the case against goals in competition law, see Eleanor M Fox, 'Against Goals' (2013) 81 Fordham L Rev_2157.

⁷ Richard A Posner, 'The Chicago School of Antitrust Analysis' (1979) 127 U Pa L Rev 925, 931.

⁸ See Ariel Ezrachi, 'Sponge' (2017) 5 JAE 49.

 $^{^{9}}$ For discussion of the consumer welfare revolution and the tenets of the Chicago school of antitrust, see Fox (n 1); Posner (n 7).

research and development'.¹⁰ In 1996, the FTC published a report cautioning that antitrust enforcement could harm innovation in the new economy.¹¹ In the secondary literature, Richard Posner's 2001 article 'Antitrust in the New Economy' marks an important turning point in conservative thought.¹² Posner argues that the new economy has many features, network effects for example, that 'tug it toward monopoly yet also, oddly toward competition', resolving this paradox by stating:

provided that the only feasible or permitted means of obtaining the monopoly are socially productive, this competition may be wholly desirable. A firm that will have the protection both of intellectual-property law and of economies of scale in consumption if it is the first to come up with an essential component of a new-economy product or service will have a lucrative monopoly, and this prospect should accelerate the rate of innovation, in just the same way that, other things being equal, the more valuable a horde of buried treasure is, the more rapidly it will be recovered.¹³

Coming from a leader of the twentieth-century Chicago school, this publication marks a significant turning point away from low prices and towards innovation as the key pillar of the conservative defence of monopoly power.¹⁴

Reflecting the Chicago school antitrust agenda sketched above, the first pillar of the rhetoric of innovation is that 'big is not bad'.¹⁵ Nicolas Petit and David Teece, for instance, argue that firms' dominance, or lack thereof, may be attributed to varying 'dynamic capabilities'.¹⁶ Petit and Teece describe dynamic capabilities as firm-specific, 'high-level sensing, seizing, and transforming skills that enable a firm to identify, develop, market, and sell innovative products'.¹⁷ Dominant firms' power reflects only superior dynamic capabilities, often in combination with industry-specific factors such as network effects. On this meritocratic account, concerns about rising market concentration and profit margins are unfounded.¹⁸ Daniel Spulber, for example, holds that '[p]rice-cost markups should not be the main guide for antitrust policy because innovation competition involves significant nonprice competition ... price-cost markups may lead to incorrect characterizations of market power and industry performance', and that 'innovation can increase market concentration'

Richard A Posner, 'Antitrust in the New Economy' (2001) 68 Antitrust L J 925.

¹³ ibid 929.

¹⁴ For similar publications around this time, see, inter alia, John J Flynn, 'Antitrust Policy, Innovation Efficiencies, and the Suppression of Technology' (1998) 66 Antitrust L J 487; Abbott B Lipsky Jr, 'To the Edge: Maintaining Incentives for Innovation After the Global Antitrust Explosions' (2004) 35 Georget J Int L 521.

Nicolas Petit and David J Teece, 'Innovating Big Tech Firms and Competition Policy: Favoring Dynamic over Static Competition' (2021) 30 Ind Corp Chang 1168.

 ¹⁶ ibid 1183.
¹⁷ ibid 1176. For further discussion of dynamic capabilities, see, inter alia, David J Teece, 'Explicating Dynamic Capabilities: the Nature and Microfoundations of (Sustainable) Enterprise Performance' (2007) 28 Strateg Manag J 1319; David J Teece, Dynamic Capabilities and Strategic Management: Organizing for Innovation and Growth (OUP 2009); David J Teece, 'A Dynamic Capabilities-Based Entrepreneurial Theory of the Multinational Enterprise' (2014) 45 J Int Bus Stud 8.

¹⁸ This idea corresponds to a 'good concentration' narrative, according to which concentration is beneficial as more productive businesses expand and the gains from dynamic efficiency improvements are shared with consumers and society more broadly. Under this interpretation, technologically advanced, 'superstar firms' have gained market share due to their superior efficiency, driven by network effects producing a 'winner takes all' dynamic and increased foreign import competition pushing a reallocation of domestic production to more efficient firms. See David Autor, David Dorn, Lawrence F Katz, Christina Patterson and John Van Reenan, 'The Fall of the Labor Share and the Rise of Superstar Firms' (2020) 135 Q J Econ 645; Nicholas Bloom, Mirko Draca and John Van Reenen, 'Trade Induced Technical Change? The Impact of Chinese Imports on Innovation, IT and Productivity' (2016) 83 Rev Econ Stud 87.

¹⁰ US Department of Justice and Federal Trade Commission, 'Antitrust Guidelines for the Licensing of Intellectual Property' (1995) 8. See also Richard J Gilbert and Willard K Tom, 'Is Innovation King at the Antitrust Agencies? The Intellectual Property Guidelines Five Years Later' (2001) 69 Antitrust L J 43.

¹ Federal Trade Commission, 'Anticipating the 21st Century: Competition and Consumer Protection Policy in the New High-Tech, Global Marketplace' (May 1996).

because 'firms with better products can expand their market share relative to firms with inferior products'.¹⁹

This line of argument is distinctly Schumpeterian. Joseph Schumpeter is a touchstone in discussions around innovation in competition law. Unlike many of his contemporaries, who typically focused on static economic analysis, Schumpeter stressed the importance of dynamism in the analysis of capitalistic development. Within his treatment of technological change, he argued that monopolies are best placed to innovate, stating 'there are superior methods available to the monopolist which either are not available at all to a crowd of competitors or not available to them so readily'.²⁰ Compared to a smaller firm competing in a contested market, a dominant firm, enjoying monopoly profits and greater access to external capital, is better able to invest in the research and development (R&D) necessary to produce new innovations.²¹ Furthermore, the innovating monopolist, because it does not have to worry about competitors imitating its hard-won innovations, faces fewer disincentives to invest in R&D.²²

Another Schumpeterian element of the rhetoric of innovation is the vulnerability of incumbents to competitive entry. A company that may appear dominant does not really have monopoly power if it faces the possibility of being displaced. Living in fear of being blown away by 'the gale of creative destruction', incumbents are forced to behave as if they face many rivals, even if they presently face none.²³ Therefore, even the most concentrated market is highly contestable and does not warrant scrutiny.²⁴ Techno-conservativism dismisses the presence of barriers to entry and often point to the demise of formerly dominant firms-Myspace or Nokia, for instance-to illustrate this point.²⁵ On this view, competition authorities pursuing intervention are simply too short-sighted to understand the vast benefits that dominant companies will deliver in the long term, if only they would leave them alone.²⁶ Spulber warns that '[a]ntitrust policy can cause significant efficiency losses by giving more weight to short-term consumer welfare effects and less weight to larger long-term economic benefits of innovation',²⁷ while Petit and Teece state that 'it is important for competition law to prioritize innovation as a policy goal and to adopt analytical frameworks that account for dynamism ... it is critical for competition law to embrace an intermediate-tolong-term orientation'.²⁸ Douglas Ginsburg and Joshua Wright also emphasise the desirability of a long-term focus, arguing that '[a]n increased focus upon dynamic competition has the potential to improve antitrust analysis and, thus, to benefit consumers'.²⁹

²³ ibid 84. See also Richard J Gilbert and David M G Newbery, 'Preemptive Patenting and the Persistence of Monopoly' (1982) 72 Am Econ Rev 514.

²⁴ Joshua D Wright and Murat C Mungan, 'The Easterbrook Theorem: An Application to Digital Markets' (2021) 130 Yale L J F 622; Geoffrey Manne, 'Error Costs in Digital Markets' in Joshua D Wright and Douglas H Ginsburg (eds), *Global Antitrust Institute Report on the Digital Economy* (Global Antitrust Institute 2020). For discussion of the importance of contestability, see Carl Shapiro, 'Competition and Innovation: Did Arrow Hit the Bull's Eye?' in Josh Lerner and Scott Stern (eds), *The Rate and Direction of Inventive Activity Revisited* (University of Chicago Press 2012).

²⁵ For example, Ryan Bourne, 'Is This Time Different? Schumpeter, the Tech Giants, and Monopoly Fatalism' (2019) Cato Institute Policy Analysis, <<u>https://www.cato.org/publications/policy-analysis/time-different-schumpeter-tech-giants-mo</u> nopoly-fatalism> accessed 5 January 2024. The Big Tech companies too are eager to stress that they are under continual competitive threat. For example, contesting a monopolisation suit from Epic Games in relation to the Apple App Store, Apple claimed that it 'is not monopolist of any relevant market. Competition inside and outside of the App Store is fierce at every level'. Epic Games v Apple, No 4:20-cv-05640-YGR, Slip op., 1 (N.D. Cal September 10, 2021).

²⁶ Richard R Nelson and Sidney G Winter, 'The Schumpeterian Tradeoff Revisited' (1982) 72 Am Econ Rev 114.

²⁷ Spulber (n 19) 8.

²⁸ Petit and Teece (n 15) 1170.

²⁹ Douglas H Ginsburg and Joshua D Wright, 'Dynamic Analysis and the Limits of Antitrust Institutions' (2012) 78 Antitrust L J 12.

¹⁹ Daniel F Spulber, 'Antitrust and Innovation Competition' (2023) 11 JAE 5.

²⁰ Joseph A Schumpeter, Capitalism, Socialism and Democracy (first published 1946, Routledge 2003) 100-1.

²¹ ibid 81–107.

²² ibid.

A further connection between Chicago school conservativism and techno-conservativism is a reliance on economics to justify normative positions. The use of economics to underpin subjective preferences is an archetypal rhetorical device, as identified by Diedre (formerly Donald) McCloskey, who initiated the sub-field of the rhetoric of economics in the 1980s.³⁰ In the latter part of the twentieth century, neoclassical price theory was the favoured epistemological source used to reject competition law enforcement. With the limits of this approach now apparent, techno-conservative often (correctly) declare that the tools of the Chicago school are unsuited to the nature of the modern economy. Instead, techno-conservatives ground their scholarship in a field that may be broadly conceived of as 'innovation studies', which spans economics and the adjacent disciplines of business and management.³¹

In highlighting the deficiencies of the neoclassical price theory framework, technoconservatives share something with progressives who also criticise the narrowness of Chicago antitrust analysis.³² Crucially, however, the techno-conservative methodological critique is essentially cosmetic. Ultimately, the core argument remains the same whether it is based on neoclassical price theory or innovation studies-leave monopoly power alone. Petit and Teece, for instance, suggest that competition law looks to models of dynamic competition found in the field of technology management. Doing so, they maintain, would lead to 'a better understanding of dynamic competition in general, and of organizational capabilities, business models, and ecosystems in particular, would result in a more careful approach to competition law that is currently poised to favor increased intervention towards Big Tech'.³³ Spulber offers a similar perspective, stating that '[i]ncorrect economic analysis of innovation competition risks impeding competition, mischaracterizing anticompetitive activities, and discouraging welfare-enhancing innovation'.³⁴ Likewise, Wright and Geoffrey Manne note that 'innovations involve novel practices, and such practices generally result in monopoly explanations' but 'procompetitive virtues' become apparent with 'more nuanced economic understanding'.³⁵ Correspondingly, Wright and Manne chastise competition law enforcement as lacking in the requisite humility.³⁶

A final component of the rhetoric of innovation is that it ties the success of powerful firms to the wider success of the economy. In particular, innovation rhetoric trades on the broad positive connotations associated with the term 'innovation', and specifically the literature connecting innovation to economic growth, identified by Schumpeter and later formalised by Robert Solow and Philippe Aghion, amongst others.³⁷ Jan Rybnicek, for example, partially attributes faster economic growth in the US than in Europe to the fact that the former 'is home to the most innovative companies' and has a 'greater focus on investment, innovation, and entrepreneurship'.³⁸ The rhetoric of innovation creates a narrative in which enforcement against Big Tech and other dominant companies would be disastrous for technological

³⁴ Spulber (n 19) 6.

³⁵ Geoffrey A Manne and Joshua D Wright, 'Innovation and the Limits of Antitrust' (2010) 6 JCL&E 153, 165.

³⁶ ibid.

³⁷ See Robert M Solow, 'A Contribution to the Theory of Economic Growth' (1956) 70 Quart J Econ 65; Robert M Solow, 'Technical Change and the Aggregate Production Function' (1957) 39 Rev Econ Stat 312; Philippe Aghion and Peter Howitt, 'Capital, Innovation, and Growth Accounting' (2007) 23 Oxf Rev Econ Policy 79.

³⁸ Jan M Rybnicek, 'Innovation in the United States and Europe' in Wright and Ginsburg (eds) (n 24) 450, 457.

³⁰ Donald N McCloskey, *The Rhetoric of Economics* (University of Wisconsin Press 1987). See also Arjo Klamer, Donald N McCloskey and Robert M Solow, *The Consequences of Economic Rhetoric* (CUP 1988); Edward M Clift, 'The Rhetoric of Economics' in Andrea A Lunsford, Kirt H Wilson and Rosa A Eberly (eds), *The SAGE Handbook of Rhetorical Studies* (SAGE Publications 2011).

³¹ Innovation studies was arguably initiated by Christopher Freeman with his 1974 book, *The Economics of Industrial Innovation*, in which Freeman observes a need to uncover the process of technological innovation that mainstream economic models neglect. Christopher Freeman, *The Economics of Industrial Innovation* (The MIT Press 1974).

³² For example, Lianos (n 4).

³³ Petit and Teece (n 15) 1170.

progress. Opposing a dominant firm then becomes a risk not only to the proper functioning of the market at hand but also to wider prosperity and well-being. Rybnicek warns 'against implementing sweeping and radical changes to antitrust and broader regulatory policy that might undermine a culture that fosters competition, innovation, and economic growth'.³⁹ A related nationalistic case against enforcement is often also raised. Especially in the context of China as a national security threat, it is argued that enforcement against large American, and to a lesser extent European, companies will undermine their ability to realise dynamic efficiencies and stave off Chinese competition, ultimately weakening US and European geopolitical power.⁴⁰ Putting these arguments together, Teece writes that dynamic competition is a requirement 'for economic growth and national security'.⁴¹

The preceding arguments together form a distinct rhetoric of innovation that is invoked to counteract the field's transition towards a more interventionist paradigm. The use of rhetoric to deter change is not new. In his book *The Rhetoric of Reaction*, Albert Hirschman identifies three forms of rhetoric—perversity, jeopardy, and futility—invoked by conservatives over the course of the nineteenth and twentieth centuries to stymy progress.⁴² Today, the rhetoric of innovation is used to deny a greater role for competition law. Although competition law is starting to once again challenge monopoly power, appeals to innovation have played a key role in shaping an environment deferential to the Big Tech companies, as well as dominant companies in other innovation-centred industries. Rebecca Allensworth notes how competition authorities and courts have been '[s]wayed by prevailing utopic views about digital markets ... that they were uniquely dynamic, innovative, and competitive', giving Big Tech a 'blank check' that they have used to build and defend their commanding positions in the digital economy.⁴³

The rhetoric of innovation plays on what Paul David terms an 'innovation fetish' that characterises policymaking in high-income countries, whereby economic and political elites have an 'excessive fixation upon innovation', which is endowed 'with seemingly magical or spiritual powers'.⁴⁴ Innovation serves as a panacea for any number of problems, from home-lessness to the climate crisis.⁴⁵ Innovation fetishism has material consequences. In the case of competition law, it helps to preserve a status quo that serves monopolists. A prominent example of this may be found in *Trinko*, a monopolisation case concerning a telecommunication company's refusal to supply emerging competitors with access to its local loop infrastructure.⁴⁶ In his opinion, Justice Antonin Scalia leans on Schumpeterian arguments to defend concentrated corporate power, writing:

³⁹ ibid 449. See also James Broughel and Adam Thierer, 'Technological Innovation and Economic Growth: A Brief Report on the Evidence' (Mercatus Center at George Mason University, February 2019).

⁴⁰ Kurt Wagner, 'Mark Zuckerberg says Breaking up Facebook would Pave the Way for China's Tech Companies to Dominate' (Vox, 18 July 2018), <<u>https://www.vox.com/2018/7/18/17584482/mark-zuckerberg-china-antitrust-breakup-artificial-intelligence</u>> accessed 5 January 2024; Jack Ewing and Liz Alderman, 'Siemens and Alstom Form European Train Giant to Beat Chinese Competition' *The New York Times* (New York City, 27 September 2017).

⁴¹ David J Teece, 'The Dynamic Competition Paradigm: Insights and Implications' (2023) 2023 Colum Bus L Rev 374, 375. ⁴² All L C Ut L L The Difference of the Dynamic Competition Paradigm: Insights and Implications' (2023) 2023 Colum Bus L Rev

⁴² Albert O Hirschman, *The Rhetoric of Reaction: Perversity, Futility, Jeopardy* (Belknap Press 1991).

⁴³ Rebecca Haw Allensworth, 'Antitrust's High-Tech Exceptionalism' (2021) 130 Yale L J F 588, 588.

⁴⁴ Paul A David, 'The Innovation Fetish among the "Economoi": Introduction to the Panel on Innovation Incentives, Institutions, and Economic Growth' in Josh Lerner and Scott Stern (eds), *The Rate and Direction of Inventive Activity Revisited* (University of Chicago Press 2012) 510. See also Marko Ampuja, 'The Blind Spots of Digital Innovation Fetishism' in Matteo Stocchetti (ed), *The Digital Age and Its Discontents: Critical Reflections in Education* (Helsinki University Press 2020).

⁴⁵ See, for example, Linda Gibbs, Jay Bainbridge, Muzzy Rosenblatt and Tamiru Mammo, *How Ten Global Cities Take on Homelessness: Innovations That Work* (University of California Press 2021); Kelly Levin and Andrew Steer, 'Fighting Climate Change with Innovation' (IMF Finance & Development, September 2021). On economic fetishism more broadly, see Duncan Kennedy, 'The Role of Law in Economic Thought: Essays on the Fetishism of Commodities' (1985) 34 Am U L Rev 939; Karl Marx, 'The Fetishism of Commodities' in Levon Chorbajian (ed), *Power and Inequality: Critical Readings for a New Era* (Routledge 2021).

⁶ Verizon Communications Inc v Law Office of Curtis V Trinko, LLP, 540 U.S. 398 (2004).

The mere possession of monopoly power, and the concomitant charging of monopoly prices, is not only not unlawful; it is an important element of the free-market system. The opportunity to charge monopoly prices—at least for a short period—is what attracts 'business acumen' in the first place; it induces risk taking that produces innovation and economic growth.⁴⁷

Trinko arguably represents the high-water mark in modern competition law's deference to monopoly power, undergirded by innovation rhetoric.

The rhetoric of innovation has continued to influence enforcement practice and case law in the intervening years since *Trinko*. On a broad view, the relative dearth of competition enforcement witnessed under throughout the consumer welfare period, especially in the US, points to the efficacy of innovation rhetoric. As Nancy Rose and Jonathan Sallet observe, powerful firms benefit from a 'standard efficiency credit' under modern competition law an implicit belief that corporate behaviour enhances economic efficiency.⁴⁸ Rose and Sallet hold that, while this efficiency credit is 'neither explicit nor applied directly in individual cases', it contributes to a more permissive enforcement environment.⁴⁹ This is exemplified in the largely unchallenged start-up acquisition phenomenon, in which the Big Tech companies have entrenched and expanded their power through acquiring hundreds of nascent technology firms.⁵⁰ Fear of stifling dynamic efficiency is often cited as a reason not to confront the wave of start-up acquisitions that has profoundly shaped, and continues to shape, the structure of the digital economy.⁵¹

More narrowly, the rhetoric of innovation may be observed in various cases in which courts have ruled in favour of powerful technology companies. In its recent decision finding with Qualcomm in a case brought by the FTC, the US Court of Appeals for the Ninth Circuit cautions against judicial interference in technological markets, referencing Manne and Wright verbatim.⁵² Likewise, ruling against the FTC in a case brought against Meta, the D.C. Circuit readily accepted the rhetoric of innovation and its implications for antitrust enforcement. The court held that digital markets are characterised by 'innovation with no end in sight', and that 'courts should proceed cautiously when asked to deem novel products or practices anti-competitive. Many innovations may seem anticompetitive at first but turn out to be the opposite, and the market often corrects even those that are anti-competitive'.⁵³ Commenting on the decision, Maurice Stucke and Ariel Ezrachi note that the court does not support its claims with empirical evidence and that its decision 'reflects simplistic assumptions as to innovation dynamics and mistaken beliefs about the digital economy'.⁵⁴

With the rhetoric of innovation apparent in the case law, as well as in the competition law community at large, it represents a significant obstacle facing the realignment of the field. Innovation is undoubtedly an important consideration, but it is only one of many. And a sole focus on innovation may instinctively seem progressive, but it is not. Replacing static

⁴⁹ ibid 1946.

⁵³ New York v Meta Platforms, Inc, 66 F.4th 288, 295, 305 (D.C. Cir 2023).

⁴⁷ ibid 407.

⁴⁸ Nancy L Rose and Jonathan Sallet, 'The Dichotomous Treatment of Efficiencies in Horizontal Mergers: Too Much? Too Little? Getting It Right' (2020) 168 U Pa L Rev 1941, 1944–45.

⁵⁰ See Pauline Affeldt and Reinhold Kesler, 'Big Tech Acquisitions — Towards Empirical Evidence' (2021) 12 JECL & Pract 471; C Scott Hemphill and Tim Wu, 'Nascent Competitors' (2020) 168 U Pa L Rev 1879; Andrew P McLean, 'A Financial Capitalism Perspective on Start-up Acquisitions: Introducing the Economic Goodwill Test' (2021) 17 JCL&E 141.

⁵¹ See, for example, Kevin A Bryan and Erik Hovenkamp, 'Startup Acquisitons, Error Costs, and Antitrust Policy' (2020) 87 U Chi L Rev 331.

⁵² 'Because innovation involves new products and business practices, courts['] and economists' initial understanding of these practices will skew likelihoods that innovation is anticompetitive and the proper subject of antitrust scrutiny.' *Federal Trade Commission v Qualcomm Incorporated*, 969 F 3d 974, 991 (9th Cir 2020), citing Manne and Wright (n 35) 167.

⁵⁴ Maurice E Stucke and Ariel Ezrachi, 'Innovation Misunderstood' (forthcoming 2024) 73 Am U L Rev, 1.

efficiency with dynamic efficiency as the field's lodestar is only the latest iteration of an ongoing conservative defence of monopoly power. Reiterating the normative claim made in the introduction to this article, the idea that competition law should strive to achieve any particular outcome is a legacy of the consumer welfare revolution and need not be continued into the future. Rather, competition law should concern itself with dispersing concentrations of capital, protecting competitive market structures, and ensuring market access for small and medium-sized enterprises. Innovation will stem from this effort, without the need to pursue it explicitly. The next section elaborates on the argument that it is possible to take innovation seriously without making dynamic efficiency the goal of competition law and, critically, without succumbing to claims that enforcement must be rolled back in order to do so.

3. RECONCILING ENFORCEMENT AND INNOVATION

The rhetoric of innovation is a compelling means of defending monopoly power. Broad appeals to innovation and technological progress have the ability to create more dovish attitudes towards competition law enforcement, especially in the digital economy. Overcoming innovation rhetoric is an important task as competition law tentatively moves into a new paradigm more amenable to enforcement efforts. The task at hand is to advance a clear vision for how to reconcile enforcement and innovation.

Three points are pertinent here. First, innovation often arises from firms that do not enjoy monopoly power, and therefore enforcement that produces or maintains deconcentrated market structures may promote, not hinder, innovation. Secondly, the propensity of the private sector, including the Big Tech companies, to produce innovation is exaggerated, with many significant innovations actually arising from the public sector. Thirdly, innovation is an ambiguous term, not a uniformly positive one, and it is therefore germane to ask whether the type of innovations delivered by dominant companies is invariably desirable. Each of these ideas is addressed below. Together, they represent a useful framework with which to contest techno-conservatism and its rhetoric of innovation.

Innovation from below

A few big companies have dominated innovation-centric markets for so long that it has become difficult to imagine what such markets might look like if they were instead populated by many less powerful firms. Yet, as Tim Wu remarks, although big companies can deliver innovation, 'it is essential that enforcement policy also encourages small-firm, decentralized innovation Decades of innovation theory have suggested the importance of this latter type, yet this fact can be forgotten'.⁵⁵

The economics of Kenneth Arrow represents a good starting point when thinking about innovation from below. Contrary to Schumpeter, Arrow holds that competition, not monopoly, drives innovation. Arrow argues that the dominant firm, with little fear of being challenged or replaced, has no incentive to invest in costly R&D, while firms in competitive markets innovate because they wish to escape their rivals.⁵⁶ The Schumpeter–Arrow debate is a common feature of the competition law literature on innovation.⁵⁷ For a time, it appeared to have been resolved by the finding of an 'inverted-U' relationship between

⁵⁵ Tim Wu, 'Taking Innovation Seriously: Antitrust Enforcement If Innovation Mattered Most' (2012) 78 Antitrust L J 313.

⁵⁶ Kenneth Arrow, 'Economic Welfare and the Allocation of Resources to Invention' in Universities-National Bureau Committee for Economic Research and the Committee on Economic Growth of the Social Science Research Councils, *The Rate and Direction of Inventive Activity: Economic and Social Factors* (Princeton University Press 1962).

⁵⁷ See Jonathan B Baker, 'Beyond Schumpeter vs. Arrow: How Antitrust Fosters Innovation' (2007) 74 Antitrust L J 575.

market concentration and the rate of innovation.⁵⁸ The inverted-U relationship implies that both Schumpeter and Arrow are correct under the right circumstances: innovation is lower in highly competitive markets, as per Schumpeter, and in highly concentrated markets, as per Arrow, and innovation is higher in moderately concentrated markets.⁵⁹ However, more recent work amends our understanding of the relationship between competition, monopoly and innovation.

Rather than an inverted-U, newer scholarship indicates that the rate of innovation increases with competition, and then plateaus (rather than declines, as a Schumpeterian perspective would posit).⁶⁰ The loss of innovation associated with competition therefore adds to the welfare costs of monopoly.⁶¹ Summarising the economic literature on the competition–innovation nexus, Jonathan Baker states that 'we should feel safe concluding that the greater competition generally enhances the prospects for innovation, while the exercise of market power tends to slow innovation and productivity improvements'.⁶² Likewise, surveying the literature on the innovation effects of horizontal mergers, Ioannis Kokkoris and Tommaso Valletti state that competition authorities 'should not be receptive with the starting argument that mergers are good for innovation, even if there are no merger-related efficiencies. This is overall a very unlikely occurrence'.⁶³

The break-up of A&T in 1984 provides a tangible example of the potential of competition to promote innovation. AT&T was the holding company for the Bell System, the largest telecommunications company in the US prior to divestiture. The Bell System, and in particular Bell Telephone Laboratories, was regarded as a leading innovator. AT&T had an 85 per cent market share in local telephone services, an 85 per cent market share in long-distance telephone services, and an 82 per cent market share in telecommunications equipment.⁶⁴ The DOJ brought a monopolisation suit against AT&T in 1974.⁶⁵ In the 1960s and early years of the 1970s, new firms had been attempting to enter the telecommunications industry, no-tably through delivering innovations, such as home modem and dial-up computer networking, that would undermine AT&T's entrenched position. The government argued that AT&T was illegally inhibiting competition, for example by refusing to connect local telephone calls on its own network to long-distance networks ran by other providers and refusing to connect other companies' telecommunications equipment to its network. A 1982 consent decree ordered that AT&T be broken up, effective from 1 January 1984.⁶⁶

Local and long-distance services were separated, with the former being split among seven regional operators. Notably, Bell Telephone Laboratories was split into two companies: AT&T Bell Labs, which continued to be owned by AT&T, and Bellcore, the ownership of which was divided between the seven regional firms.⁶⁷ Wu describes how, following divestiture, 'the telecommunications market went from stagnancy to vibrancy' and 'even more

⁵⁸ Philippe Aghion, Nick Bloom, Richard Blundell, Rachel Griffith and Peter Howitt, 'Competition and Innovation: An Inverted-U Relationship' (2005) 120 QJ Econ 701.

⁶⁰ See, for example, Mitsuru Igami and Kosuke Uetake, 'Mergers, Innovation, and Entry-Exit Dynamics: Consolidation of the Hard Disk Drive Industry, 1996–2016' (2020) 87 Rev Econ Stud 2672.

⁶¹ Michael Reksulak, William F Shughart and Robert D Tollison, 'Innovation and the Opportunity Cost of Monopoly' (2008) 29 Manag Decis Econ 619.

⁶² Jonathan B Baker, The Antitrust Paradigm: Restoring a Competitive Economy (Harvard University Press 2019) 28.

⁶³ Ioannis Kokkoris and Tommaso Valletti, 'Innovation Considerations in Horizontal Merger Control' (2020) 16 JCL&E 220, 232.

⁶⁴ Martin Watzinger and Monika Schnitzer, 'The Breakup of the Bell System and its Impact on US Innovation' (2022) CEPR Press Discussion Paper No 17635, https://cepr.org/publications/dp17635> accessed 5 January 2024.

⁶⁵ United States v AT&T, Western ElectricCo, Inc, and Bell Telephone Laboratories, Inc, Civ No 74-1698 (D.D.C. filed 20 November 1974).

⁶⁶ United States v American Telephone & Telegraph Co, 552 F Supp 131 (D.D.C. 1982).
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⁶⁷ Anusua Datta, 'Divestiture and Its Implications for Innovation and Productivity Growth in U. S. Telecommunications' (2003) 69 South Econ J 644.

⁵⁹ ibid.

importantly, actually spawned many new markets, including markets like online auctions, search advertising, or social networking that were never dreamed of by enforcers'.⁶⁸ Empirical studies confirm the positive effects of the break-up for innovation. Martin Watzinger and Monika Schnitzer report that telecommunications-related patenting increased by 19 per cent, driven by increased patenting by companies unrelated to the Bell System.⁶⁹ Comparably, Anusua Datta finds that greater competition in the telecommunications sector prompted AT&T to increase its investment in R&D.⁷⁰ Similar results are found in a study of the 1952 break-up of the German chemical company IG Farben.⁷¹

In line with the preceding economic evidence, this bottom-up approach is embodied in the EU's Digital Markets Act, an ex-ante regulation that seeks to promote contestability in the digital economy through imposing various requirements on 'gatekeepers'.⁷² Dynamic effects also feature prominently in the recent European case law, especially with respect to merger control. For example, an innovation theory of harm underpinned the European Commission's challenge to the agrochemical mega-merger between Dow and DuPont.⁷³ The Commission examined whether the transaction would harm the parties' innovation capabilities, focusing on rivalry with respect to internal R&D pipelines. The analysis emphasises the possibility of 'cannibalisation'; as the parties' R&D efforts overlapped in certain areas—fungicides, herbicides, and insecticides—the merged entity would likely discontinue some early-stage innovation to avoid costly duplication. Innovation would therefore be higher if the parties remained separate. Although the transaction was cleared, the Commission ordered the divestiture of DuPont's R&D arm based on its pioneering examination of overlapping innovation spaces.⁷⁴

In the digital sector, the Competition and Markets Authority—making the rare decision to challenge a start-up acquisition—retrospectively prohibited Meta/GIPHY in part due to harms to innovation:

GIPHY's efforts to innovate and monetise its services prior to the Merger were valuable, as they increased the likelihood of new innovations and products being made available in future ... This is the case both for those products and innovations that GIPHY had already begun to develop itself or may have developed in future, and also for any developments that may have been made by Facebook in response to the possibility of competition from GIPHY, or from other social media platforms in partnership with GIPHY. By removing GIPHY as an independent competitor, the Merger has eliminated this form of 'dynamic' competition.⁷⁵

⁷¹ Felix Poege, 'Competition and Innovation: The Breakup of IG Farben' (2022) IZA Institute of Labor Economics Discussion Paper No 15517, https://scholarship/3230/ accessed 5 January 2024.

⁷² Regulation of the European Parliament and of the Council on contestable and fair markets in the digital sector and amending Directives (EU) 2019/1937 and (EU) 2020/1828 (Digital Markets Act). Notably, the Digital Markets Act has come under intense criticism, often centred on innovation concerns. See, for example, Carmelo Cennamo, Tobias Kretschmer, Panos Constantinides, Cristina Alaimo and Juan Santaló, 'Digital Platforms Regulation: An Innovation-Centric View of the EU's Digital Markets Act' (2023) 14 JECL & Pract 44; Aurelien Portuese, 'The Digital Markets Act: A Triumph of Regulation over Innovation' (Information Technology & Innovation Foundation Schumpeter Project on Competition Policy, August 2022).

⁷³ Case COMP/M.7932 Dow/DuPont.

⁷⁴ See Andrea Lofaro, Stephen Lewis and Paulo Abecasis, 'The European Commission's Novel Theory of Harm in the Dow/DuPont Merger' (2017) 32 Antitrust 100; Elias Deutscher and Stavros Makris, 'Sustainability Concerns in EU Merger Control: from Output-Maximising to Polycentric Innovation Competition' (2023) 11 JAE 350.

⁷⁵ Competition and Markets Authority, 'Completed Acquisition by Facebook, Inc (now Meta Platforms) of Giphy, Inc: Final Report' (30 November 2021) 13.

⁶⁸ Wu (n 55).

⁶⁹ Watzinger and Schnitzer (n 64).

⁷⁰ Datta (n 67).

Similar concerns are found in the FTC challenge to Meta's acquisition of the virtual reality (VR) company Within and its VR fitness app, Supernatural, with the FTC arguing that the acquisition would remove Meta's incentive to develop its own VR fitness app and lead to a substantial lessening of competition in the market for VR fitness apps, yielding 'multiple harmful outcomes, including less innovation'.⁷⁶ While such interventions remain the exception rather than the rule, with many transactions proceeding undisturbed by enforcement action, these cases demonstrate that competition authorities may rebuff the rhetoric of innovation, premised on the notion that important innovation comes from below.

Innovation from above

At the other end of the spectrum, it is important to recognize that the public sector is also an important innovator. The rhetoric of innovation benefits from popular conceptions about the sources of innovation, which are typically understood to be ingenious entrepreneurs, risk-taking venture capitalists, and markets free from government intervention. Schumpeter was a pioneer of this view, elevating the entrepreneur as the central driver of technological change and capitalistic development, arguing that 'the function of entrepreneurs is to reform or revolutionize the pattern of production by exploiting an invention or, more generally, an untried technological possibility for producing a new commodity or producing an old one in a new way⁷⁷. The role of the state is reduced to protecting property rights, including intellectual property rights, and safeguarding the rule of law. Otherwise, it should stay out of the way and not 'crowd out' the private sector.

The rhetoric of innovation is undermined by acknowledging that the public sector plays a profound role in catalysing, producing, and disseminating innovation. The relationship between the public sector and innovation is well documented. In a landmark study, John Jewkes, David Sawers, and Richard Stillerman find that a majority of innovations with industrial applications developed in the nineteenth and early twentieth century arose from universities and government laboratories, with only a minority coming from industrial laboratories.⁷⁸ Similarly, Vernon Ruttan highlights six major general purpose technologies astronautical technologies, computing and semiconductor technologies, the Internet, mass production technologies, military and commercial aviation technologies, and nuclear and electrical power technologies-developed over the last hundred years that owe their development to the public sector.⁷⁹ Fred Block and Matthew Keller find that nearly 90 per cent of the most significant innovations developed in the US between 1971 and 2006 were assisted by federal research capabilities.⁸⁰

Yet, this aspect of the innovative process remains largely hidden. Block notes that the state's involvement in innovation 'live[s] in the shadows because acknowledging [its] central role in promoting technological change is inconsistent with the market fundamentalist claim that private sector firms should simply be left alone to respond autonomously and spontaneously to the signals of the marketplace'.⁸¹ The separation of the state from the market-or the 'disembedding' of the market from its social and political context—is a cornerstone of

⁷⁶ Complaint, Federal Trade Commission v Meta Platforms, Inc, Mark Zuckerberg, and Within UnLimited, Inc, No 22-cv-04325 (N.D. Cal, 2022) 3.

Schumpeter (n 20) 132. See also Peter F Drucker, Innovation and Entrepreneurship: Practice and Principles (first published 1985, Routledge 2015).

 ⁷⁸ John Jewkes, David Sawers and Richard Stillerman, The Sources of Invention (Palgrave Macmillan 1969).
⁷⁹ Vernon W Ruttan, Is War Necessary for Economic Growth? Military Procurement and Technology Development (OUP 2006).

Fred L Block and Matthew R Keller, 'Where Do Innovations Come From?' in Fred L Block and Matthew R Keller (eds), State of Innovation: The U.S. Government's Role in Technology Development (Routledge 2011).

Fred Block, 'Swimming against the Current: The Rise of a Hidden Developmental State in the United States' (2008) 36 Politics Soc 169, 170. See also David M Kotz, 'Socialism and Innovation' (2002) 66 Sci Soc 94.

conservative economic thought.⁸² This portrayal serves corporate interests, creating a contrast between a clumsy, intrusive public sector, and a dynamic, wealth-creating private sector.⁸³ A more nuanced understanding of the innovation process is gained by rejecting the false dichotomy of the state versus the market. A perspective that emphasises only the firm is incomplete. Innovation is a collective enterprise, involving the interaction of a range of actors, including public sector actors.⁸⁴

Taking a 'system' approach to innovation is especially pertinent in the digital economy. Many innovations associated with the digital economy have their origins in the American 'developmental network state'.⁸⁵ Developmental network states-versions of which also exist in Europe and other countries worldwide—are intended to generate disruptive innovations that are unlike anything that has come before.⁸⁶ This may be contrasted with the 'developmental bureaucratic state'-found, for example, in East Asia in the second part of the twentieth century-that helps domestic firms to catch up with technologicallyadvanced foreign firms.⁸⁷ A developmental network state undertakes four tasks to help realise innovation. First, 'targeted resourcing', whereby the government identifies economic obstacles that might be usefully overcome through technological solutions, followed by the provision of resources to those working on such innovations. Second, 'opening windows', whereby the government encourages innovators to propose new innovations and receive support, in recognition that innovation should not be wholly state-directed. Third, brokering, which consists of technological brokering (combining different technical groups that have mutually beneficial knowledge) and business brokering (commercialising technological developments). Fourth, facilitation, which seeks to ease and encourage the adoption of new technologies, for example through ensuring compatibility with existing infrastructure.88

The US developmental network state emerged during the Cold War and is closely associated with national security organisations, notably the Atomic Energy Commission, the National Aeronautics and Space Agency, and the Advanced Research Projects Agency (ARPA).⁸⁹ The work of ARPA is especially significant in the context of the rhetoric of innovation and its defence of Big Tech. ARPA was created in 1958 in response to the success of the Soviet Union's Sputnik mission in 1957, with the US fearful of not keeping up with its rival's technological advancements. ARPA took part of the US military's R&D budget and dedicated it to realising innovations from 'blue sky thinking'.⁹⁰ ARPA played a vital role in the creation in the development of many technologies underlying the computing revolution and the development of the digital

⁸² The concept of disembedding was famously articulated by Karl Polanyi in his work *The Great Transformation*, which centres on the demise of classical liberalism amidst the major traumatic events of the first half of the twentieth century: World War I, the Bolshevik Revolution, the Great Depression, the rise of fascism, and onset of World War II. Polanyi notes that the economic, social and political are all innately bound up in one another: 'The road to the free market was opened and kept open by an enormous increase in continuous, centrally organized and controlled interventionism'. Karl Polanyi, *The Great Transformation: The Political and Economic Origins of Our Time* (first published 1944, Beacon Press 2001) 146.

See Mariana Mazzucato, The Entrepreneurial State: Debunking Public vs. Private Sector Myths (PublicAffairs 2015).

⁸⁴ See Peter B Evans, Embedded Autonomy: States and Industrial Transformation (Princeton University Press 1995).

⁸⁵ For further discussion of the developmental network state, see Block (n 81).

86 ibid.

⁸⁷ For discussion of East Asian developmental bureaucratic states, see Chalmers Johnson, *MITI and the Japanese Miracle: The Growth of Industrial Policy,* 1925-1975 (Stanford University Press 1982); Ha-Joon Chang, "The Political Economy of Industrial Policy in Korea' (1993) 17 Camb J Econ 131. For discussion of the developmental bureaucratic state more broadly, see Meredith Woo-Cumings (ed), The Developmental State (Cornell University Press 1999); Sean O'Riain, The Politics of High-Tech Growth: Developmental Network States in the Global Economy (CUP 2009).

⁸⁸ Block (n 81).

⁸⁹ On military Keynesianism, see John A Alic, *Trillions for Military Technology: How the Pentagon Innovates and Why It Costs So Much* (Palgrave Macmillan 2007); James M Cypher, 'The Origins and Evolution of Military Keynesianism in the United States' (2015) 38 J Post Keynes Econ 449.

⁹⁰ Mazzucato (n 83) 82.

economy.⁹¹ In The Entrepreneurial State, Marianna Mazzucato articulates how many of the innovations often associated with Big Tech-including global positioning systems, semiconductors, and touch screens—arose out of ARPA. Focusing on Apple in particular, Mazzucato writes that:

every technology that makes the iPhone smart and not stupid owes its funding to both basic and applied research funded by the State ... Apple was able to ride the wave of massive State investments ... Apple has mastered designing and engineering technologies that were first developed and funded by the US government and military.⁹²

Taking a broader view, Stuart Leslie examines the place of the state in the growth of Silicon Valley.⁹³ Leslie argues that, while Silicon Valley is exalted as a paragon of 'free market' capitalism, it 'owes its present configuration to patterns of federal spending, corporate strategies, industry-university relationships, and technological innovation shaped by the assumptions and priorities of Cold War defense policy'.⁹⁴

The point is not to lionise military Keynesianism—this was, and remains, problematic but to emphasise that the innovation process is more complex than techno-conservativism suggests.⁹⁵ The rhetoric of innovation rests on the common misconception that innovation only arises from the private sector, and from powerful corporations in particular. Yet, this is a false narrative. The state played a key role in creating the present-day technological paradigm. Recognition of this should free competition law from fear that enforcement against Big Tech and other incumbents would be fatal to technological change.

The ambiguity of innovation

The rhetoric of innovation implicitly asserts that all innovation is valuable, and that, ultimately, it will act as a tide that lifts all boats, to the benefit of everyone. However, this is an inadequate understanding of innovation, focusing only on its quantitative dimension and ignoring its qualitative aspects. It is misguided to assume that innovation is innately beneficial; innovation under capitalism is not brought about solely to further human flourishing, but in the service of profit.⁹⁶ Correspondingly, the rhetoric of innovation is weakened by appreciating that 'not all innovations are created equal and the *direction of technology* matters greatly'.⁹⁷

Today, innovation enjoys broadly positive connotations. As noted above, it is called upon as a solution to a range of economic, political and social problems. Innovation is something to be strived for. It is rare for its content to be interrogated. However, engaging reflexively with innovation highlights the ambiguity of the concept. As documented by Benoît Godin, innovation has historically been a contested term. Techno-conservatives typically start their analyses of innovation with Schumpeter, but its history goes back far further. It may be traced to Greece in the fifth century BC,

 ⁹² Mazzucato (n 83) 99.
⁹³ Stuart W Leslie, 'The Biggest "Angel" of Them All: The Military and the Making of Silicon Valley' in Martin Kenny (ed), Understanding Silicon Valley: The Anatomy of an Entrepreneurial Region (Stanford University Press 2000).

⁹¹ See Janet Abbate, Inventing the Internet (The MIT Press 1999); Alex Roland and Philip Shiman, Strategic Computing: DARPA and the Quest for Machine Intelligence, 1983-1993 (The MIT Press 2002); Glenn R Fong, 'ARPA Does Windows: The Defense Underpinnings of the PC Revolution' (2017) 3 Bus Polit 213.

ibid 49.

⁹⁵ For discussion of military Keynesianism, see Peter Custers, 'Military Keynesianism Today: an Innovative Discourse' (2010) 51 Race Cl 79; Jan Toporowski, 'Kalecki on Technology and Military Keynesianism' (2017) SWPS Working Paper 2017-22, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3063914> accessed 5 January 2024.

⁹⁶ See Tony Smith, 'Technological Change in Capitalism: Some Marxian Themes' (2010) 34 Camb J Econ 203.

⁹⁷ Daron Acemoglu, 'Distorted Innovation: Does the Market Get the Direction of Technology Right?' (2023) NBER Working Paper 30922, 1, https://www.nber.org/papers/w30922 accessed 5 January 2024. Emphasis in the original. See also Daron Acemoglu and Simon Johnson, Power and Progress: Our Thousand-Year Struggle Over Technology and Prosperity (Basic Books 2023).

with innovation (kainotomia) derived from kainos (new).98 The ancient Greek understanding of innovation related to the breaking of custom, laws, and tradition, 'introducing change to the established order.'99 Innovation gained an explicitly pejorative meaning in fifteenth- and sixteenth-century Europe, becoming a 'linguistic weapon' invoked to criticise those who contested the religious status quo.¹⁰⁰ Innovation was a synonym for heresy, as exemplified in 1548 when King Edward VI, seeking to defend Protestantism in England against Catholicism, issued a royal injunction 'against those that doeth innouate'.¹⁰¹ Over the next two centuries, it was political and social revolutionaries who would face the charge of innovation.¹⁰² Edmund Burke, habitually cited as the father of modern conservatism, provides a clear example of this tradition, describing innovation as the 'greatest evil of all'.¹⁰³

The meaning of innovation started to become more positive following the French Revolution at the end of the eighteenth century, and this transformation would continue in a piecemeal fashion over the course of the nineteenth century.¹⁰⁴ Key to this transition is a new association between innovation and ideas of utility and progress, as captured in the writings of Jeremey Bentham. Bentham—himself an innovator, having designed the Panopticon prison—argued that the use of innovation as a derogatory term stifled economic and social development, writing that it increases 'the mass of general wealth'.¹⁰⁵ The change in the characterisation of innovation, from negative to positive, was completed in the twentieth century, when innovation started to be understood in relation to science, technology, and progress, giving it a more virtuous meaning.¹⁰⁶ This connection was made initially by Schumpeter, as well as the far lesser-known William Rupert Maclaurin.¹⁰⁷ With its relationship to technological change established, the present status of innovation crystallised. Innovation became a uniformly positive phenomenon, and innovators—previously derided—were embraced.¹⁰⁸

This very brief sketch of innovation's history reveals the ambiguity of the concept. The idea that innovation may be anything but desirable has been lost. The rhetoric of innovation rests heavily on the modern conception of innovation. It emphasises the quantity of innovation—as measured by R&D expenditure and number of patents filed—but neglects the quality of innovation. But producing valuable innovation is about more than spending monopoly profits on R&D and hoarding intellectual property.¹⁰⁹ Of course, judging the

101 This was exemplified in 1548 when King Edward VI, seeking to defend Protestantism in England against Catholicism, issued a royal injunction 'against those that doeth innouate'. England and Wales Sovereign Edward VI, 'A Proclamacion against those that doeth innouate, alter or leaue doune any Rite or Ceremonie in the Church, of their private aucthoritie: and aga inst them whiche preacheth without licence, set furth the .vj. daie of Februarij, in the seconde yere of the Kynges Maiesties moste gracious reigne' (1548) <https://quod.lib.umich.edu/e/eebo2/A69318.0001.001?view=toc> accessed 5 January 2024. See also Benoît Godin, 'The English Reformation and the Invention of Innovation, 1548-1649' (2022) 17 Contrib Hist Concepts 1. ¹⁰² Godin (n 98) 101–33.

¹⁰³ Edmund Burke, Further Reflections on the Revolution in France (first published 1795, Liberty Fund 1992) 271. Condemning the French Revolution, Burke argued that [a] spirit of innovation is generally the result of a selfish temper, and confined views'. Edmund Burke, Reflections on the Revolution in France (first published 1790, Yale University Press 2003) 29. See also Emily Jones, Edmund Burke and The Invention of Modern Conservatism, 1830-1914 (OUP 2019).

¹⁰⁴ Godin (n 98) 137–99.

¹⁰⁵ Jeremy Bentham, *The Rationale of Reward* (Robert Heward 1830) 215.

¹⁰⁶ Godin (n 98) 211-78. See also Benoît Godin, The Invention of Technological Innovation: Languages, Discourses and Ideology in Historical Perspective (Edward Elgar 2019).

See, for example, William Rupert Maclaurin, Invention and Innovation in the Radio Industry (Macmillan 1949); William Rupert Maclaurin, 'The Process of Technological Innovation: The Launching of a New Scientific Industry' (1950) 40 Am Econ Rev 90; William Rupert Maclaurin, 'The Sequence from Invention to Innovation and its Relation to Economic Growth' (1953) 67 Q J Econ 97. See also Benoît Godin, 'In the Shadow of Schumpeter: W. Rupert Maclaurin and the Study of Technological Innovation' (2008) 46 Minerva 343.

Benoît Godin, 'Innovation theology' in Benoît Godin, Gérald Gaglio and Dominique Vinck (eds), Handbook on Alternative Theories of Innovation (Edward Elgar 2021). ¹⁰⁹ See Cecilia Rikap, Capitalism, Power and Innovation: Intellectual Monopoly Capitalism Uncovered (Routledge 2021); Nat

Watkins, 'Inside Big Tech's Race to Patent Everything' (Wired, 15 March 2022), https://www.wired.com/story/big-tech-pat ent-intellectual-property/> accessed 3 August 2022; Jessica Silbey, Against Progress: Intellectual Property and Fundamental Values in the Internet Age (Stanford University Press 2022)

⁹⁸ Benoît Godin, Innovation Contested: The Idea of Innovation over the Centuries (Routledge 2015) 19.

⁹⁹ ibid 100

ibid 5.

value of an innovation is not easy or straightforward. Nevertheless, there should be greater interrogation of the desirability and direction of corporate innovation, which is an issue that competition law has so far failed to meaningfully engage with.¹¹⁰

Again, Arrow's scholarship is instructive. Arrow argues that when dominant companies innovate, they do so in an iterative manner, rather than in a way that is likely to bring about leaps in technological advancement.¹¹¹ Their innovation follows the already-established path, or else they risk diminishing the value of their existing assets and losing their entrenched market positions. Correspondingly, it is maverick, challenger firms that are likely to produce disruptive, path-breaking innovations, as it is these outsiders that need to create genuinely new products and markets in order to thrive.¹¹² The pharmaceutical industry is illustrative. Dominant pharmaceutical companies—'Big Pharma'—typically justify high drug prices on Schumpeterian grounds. High prices, and high profits, are necessary to make the investment in R&D required to generate new pharmaceuticals.¹¹³ Yet, most drugs developed by Big Pharma are so-called 'me too' drugs, only slight molecular variations of existing drugs. Of the 415 pharmaceuticals approved by the US Food and Drug Administration between 1998 and 2002, only 14 per cent were new innovations, 9 per cent represented functional improvements on existing drugs, and the remaining 77 per cent were me too drugs that delivered no functional improvement.¹¹⁴

A similar pattern may be observed in the digital economy too, where dominant companies are inhibiting radical innovation in favour of iterative innovation. The Big Tech companies innovate to protect and advance their business models and market dominance, producing 'sustaining' innovations that do not fundamentally change the existing technological paradigm. Significantly, they can use their dominance over the digital economy to impede the ability of mavericks to produce disruptive innovations. The innovative efforts of smaller technology companies are stymied by the need to make any new offering interoperable with Big Tech ecosystems.¹¹⁵ Ezrachi and Stucke highlight Apple's App Store as an example of such sustaining innovation. Ezrachi and Stucke note that, while Apple invests substantially into improving the experience of App Store users, app developers are allowed into the ecosystem only if they comply with its rules and would not be able to introduce a superior app store that would be compatible with the Apple ecosystem.¹¹⁶ Overall, Ezrachi and Stucke argue, the Big Tech companies 'make sure to only advance and allow innovation that does not disrupt their business models and profits Entrusting the Tech Barons to determine the scope and trajectory of digital innovation will undoubtedly leave us worse off.¹¹⁷ Deferring

¹¹⁰ Deutscher and Makris make a similar point, critiquing the European Commission's decisions in major agrochemical mergers (*Bayer/Monsanto* and *Dow/DuPont*) on the basis that 'the impact of the mergers on the diversity, quality, and direction of innovation was not sufficient examined'. Deutscher and Makris (n 74) 354.

¹¹⁷ ibid 2, 5. Michelle Meagher advances a similar perspective, stating that monopolists control 'the dissemination of ideas and the direction of research', and 'innovate in the direction of power and benefit to shareholders, not necessarily in the best

¹¹¹ Arrow (n 56).

¹¹² ibid. See also Thomas J Holmes, David K Levine and James A Schmitz Jr, 'Monopoly and the Incentive to Innovate When Adoption Involves Switchover Disruptions' (2012) 4 Am Econ J Microecon 1. Notably, in the same year that Arrow published his seminal work on innovation, economic historian John Habakkuk published a significant study that examined both the rate and direction of innovation in the US and Britain in the nineteenth century. HJ Habakkuk, *American and British Technology in the Nineteenth Century: Search for Labor Saving Inventions* (CUP 1962). More recent work has attempted to formally analysis the various factors that influence the direction of innovation, for example: Daron Acemoglu, 'Why Do New Technologies Complement Skills? Directed Technical Change and Wage Inequality' (1998) 113 Q J Econ 1055; Daron Acemoglu, 'Directed Technical Change' (2002) 69 Rev Econ Stud 781.

¹¹³ For work contesting even this quantitative relationship, see Oliver J Wouters, Lucas A Berenbrok and Meiqi He, 'Association of Research and Development Investments With Treatment Costs for New Drugs Approved From 2009 to 2018' (2022) 5 JAMA Netw Open 1.

¹¹⁴ Marcia Angell, The Truth About Drug Companies: How They Deceive Us and What to Do About It (Random House 2004) 75.

¹¹⁵ Daron Acemoglu, 'Antitrust Alone Won't Fix the Innovation Problem' (Project Syndicate, 30 October 2020).

¹¹⁶ Ariel Ezrachi and Maurice E Stucke, How Big-Tech Barons Smash Innovation—and How to Strike Back (Harper Business 2022).

to the innovation of Big Tech and other dominant companies means trading the possibility of disruptive innovation for the certainty of sustaining innovation that entrenches existing power structures.

Relatedly, innovation needs to be understood in context. The rhetoric of innovation asserts that innovation should be the end goal of law and policy. Yet, as David Roessner reminds us, 'what matters about innovation is its consequences, not innovation per se'.¹¹⁸ Highlighting this point, Daron Acemoglu contrasts the differing uses of ammonia, the synthesis and manufacture of which was developed in the early twentieth century.¹¹⁹ Ammonia may be used in agricultural fertiliser, which has increased crop productivity and lowered the price of foodstuffs, but also in the production of explosives which have contributed to the injury and death of countless soldiers and civilians. Acemoglu observes that '[f]ew would think that these two advances have similar social value ... different technologies often create gains and losses for different groups'.¹²⁰ Taking an example from the digital space, Meta has been widely criticised for its propensity to spread disinformation.¹²¹ An innovation that intensifies the distribution of disinformation should not be held up as a means of defending Meta's market power.¹²² These examples illustrate the point that if a business model is damaging or dangerous, innovations amplifying that damage or danger should be met with caution rather than celebration.

Similar caution should be taken with respect to innovations that are premised on circumventing regulation. Niklas Elert and Magnus Henrekson identify 'evasive entrepreneurship' as 'an important yet but underappreciated source of innovation and change in the economy', defining the concept 'as profit driven business activity in the market aimed at circumventing the existing institutional framework'.¹²³ Elert and Henrekson state that evasive entrepreneurship is founded on 'exploiting institutional contradictions, such as inconsistencies in regulations, a lack of judicial precedence making it unclear whether an activity is illegal or not, or a lack of resources in the judicial system making monitoring and enforcement impracticable'.¹²⁴ Uber and other lift-sharing companies provide a clear example of evasive entrepreneurship, with their innovative business models reliant on legal uncertainty around the employment status of their drivers, and the exploitation that this uncertainty enables.¹²⁵

As with the growing recognition that not all forms of competition are beneficial, competition law needs to embrace a more nuanced understanding of innovation and appreciate that it is not innately valuable.¹²⁶ By recognising the ambiguity of innovation—as well as that important innovative activity arises from deconcentrated markets and the public sector-it is possible to contest the rhetoric of innovation and reconcile competition law enforcement with innovation.

- Ezrachi and Stucke (n 116). 123
- Niklas Elert and Magnus Henrekson, 'Evasive Entrepreneurship' (2016) 47 Small Bus Econ 95, 95. 124
- ibid 96 125

See Brishen Rogers, 'The Social Costs of Uber' (2015) 82 U Chi L R 85; VB Dubal, 'The Drive to Precarity: A Political History of Work, Regulation, & Labor Advocacy in San Francisco's Taxi & Uber Economies' (2017) 38 Berkeley J Emp Lab Law 73; Marshall Steinbaum, 'Antitrust, the Gig Economy, and Labor Market Power' (2019) 82 LCP 45.

On the ambiguity of competition, see Maurice E Stucke, 'Is Competition Always Good?' (2013) 1 JAE 162; Ariel Ezrachi and Maurice E Stucke, 'The Curious Case of Competition and Quality' (2015) JAE 227; Meagher (n 118). Maurice E Stucke and Ariel Ezrachi, Competition Overdose: How Free Market Mythology Transformed Us from Citizen Kings to Market Servants (Harper Collins 2020).

interests of consumers or society'. Michelle Meagher, Competition Is Killing Us: How Big Business Is Harming Our Society and Planet - and What to Do about It (Penguin Business 2020) 53.

¹¹⁸ David J Roessner, 'Federal Technology Policy: Innovation and Problem Solving in State and Local Governments' (1979) 5 Analysis 181, 189.

¹¹⁹ Acemoglu (n 97). ¹²⁰ ibid.

¹²¹ See, for example, Paul Bernal, 'Fakebook: Why Facebook Makes the Fake News Problem Inevitable' (2018) 69 NILQ 513.

4. CONCLUSION

Innovation has become a central theme in competition law since the turn of the millennium. This article urges the field to adopt a more critical and reflexive stance towards the concept. While there is an important relationship between innovation and competition that is worth serious consideration, invoking innovation is a well-established means of deterring enforcement against dominant companies, especially in the digital economy.

The article identifies a rhetoric of innovation, composed of four interrelated arguments, that pervades competition law and impedes the field's move towards a stricter paradigm. First, that economic bigness should be welcomed due to dynamic efficiency gains that powerful firms are uniquely placed to deliver. Secondly, that competitive entry is sufficient to discipline incumbents and prevent anticompetitive issues. Thirdly, that competition law should be deferential to economics, as economics provides a neutral basis on which to make decisions. Fourthly, that the success of the wider economy is tied to the ability of dominant corporations to innovate undisturbed by government intrusion. This is old wine in new bottles. Techno-conservatives citing innovation are the intellectual and ideological successors of the Chicago school scholars who in previous generations pointed to low prices as a justification for concentrations of corporate power. Innovation has replaced low prices as the locus of the argument. Now that the field is finally confronting the failures of the Chicago revolution, this article warns against repeating the same mistakes.

The article rejects the rhetoric of innovation and highlights three points that demonstrate strong competition law enforcement can be reconciled with care for innovation: smaller companies and deconcentrated market structures are an important source of innovation; the private sector is not solely responsible for technological change, with the public sector playing an important role in producing innovation; and innovation is an ambiguous term, and that incumbents may distort the qualitative nature of innovation in a way that is not beneficial. Taken together, these three ideas represent a useful framework with which to counter the rhetoric of innovation and help ensure that amorphous innovation concerns do not derail the profound shift that competition law is undergoing.

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