

TOWARDS A DYNAMIC COMPETITION APPROACH TO BIG TECH MERGER ENFORCEMENT: **THE FACEBOOK-GIPHY EXAMPLE**



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Towards A Dynamic Competition Approach To Big Tech Merger Enforcement: The *Facebook-Giphy* Example By David J. Teece

This paper explores how to elevate the importance of innovation and dynamic competition in antitrust enforcement. It explains that neglect of innovation stems from the employment of static frameworks and equilibrium models, when disequilibrium is characteristic of the competitive environment. The prescription advanced to remedy this lacuna is a focus on evolutionary, capability, and complexity economics. However, the adoption of new mental models, while obviously necessary, will not come easy because of the catchup work that the enforcement agencies and scholars must do to operationalizing new enforcement methodologies. It requires de-emphasizing narrow efficiency and incentive issues while focusing on the impact of business conduct on innovation, capabilities, and ecosystems. Competition agencies will need to clear out the clutter of unhelpful and distracting constructs that are the residue of industrial age and neoclassical thinking. Fresh insights and better societal outcomes and a deeper understanding of digital platforms and digital transformation can result. Attention (albeit cursory) is given to the Facebook-Giphy acquisition as an example of how one might begin to look at dynamic competition issues.

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O INTRODUCTION

Dynamic (Schumpeterian) competition is engendered by product and process and service innovation. Such competition is extremely powerful. It does more than bring about price reductions. It also brings innovation and service improvement that customers enjoy. A better understanding of dynamic competition in general, and of organizational capabilities, business models, and ecosystems in particular, would result in better competition policy frameworks and tools to analyze Big Tech behavior, including merger and acquisitions ("M&A") activity.

I have endeavored (with co-authors) to advance a dynamic competition paradigm for the last 35 years.^{1,2,3,4,5,6} It is heartening that enforcement agencies, most notably the UK's Competition and Markets Authority ("CMA"), and some scholars are now recognizing the need to abandon static concepts of competition in favor of dynamic ones. However, because law and economics scholarship has studiously avoided this concept for at least a generation, there is much work to be done in order to operationalize it in a policy useful manner. In this paper, I begin to outline how this might be done by endeavoring to embed recent developments in evolutionary economics and in capability theory into antitrust analysis.

Core to the dynamic competition perspective is a belief that competition policy must prioritize innovation as a policy goal and adopt analytical frameworks that calibrate dynamism and innovation. Moreover, in order to support and advance innovation, it is critical for competition policy to embrace an intermediate to long-term orientation. Short termism is not only the enemy of good management; it is the enemy of good competition policy. A new (operational) framework will require less reliance on the traditional tools of antitrust economics such as market definition and more reliance on the assessment of the business conduct and the impact of M&A transactions on the robustness of innovation in and across business and platform ecosystems. New ecosystem specific metrics can become a good proxy to inform for what is traditionally thought of as "competitive effects." The goal here is to advance a conceptual competition policy framework that (I) is undergirded by a systematic (and not *ad hoc*) theory of innovating digital firms; (II) recognizes that capabilities, not market positions *per se*, undergird business performance; (III) understands the origins of rents in the digital economy; (IV) offers operational welfare criteria; and (V) provides predictors of long-term competitive effects under uncertainty. However, to bring about improvements in mental models, we must first understand how we got to where we are.

02 DYNAMIC COMPETITION PARADIGM: IGNORED IN ECONOMICS BUT ACCEPTED IN TECHNOLOGY MANAGEMENT

A. Intellectual History

The theory of dynamic competition has prestigious intellectual origins, but it is also one of enduring scholarly and policy marginalization. Schumpeter stands as the father of theories of dynamic competition. Schumpeter observed almost a century ago that dynamic competition is much more effective at improving consumer welfare than is static competition. He analogized static versus dynamic competition to the difference between bombardment and forcing a door. Dynamic competition is so much more important that "it becomes a matter of comparative indifference whether competition in the ordinary sense functions more or less promptly; the powerful lever that in the long run expands output and brings down prices is in any case made of other stuff."⁷

The "other stuff" Schumpeter referred to is innovation, which, through the introduction of new products and pro-

1 Thomas M. Jorde & David J. Teece, Innovation, Dynamic Competition, and Antitrust Policy, 13 Regulation 35 (1990).

- 2 Thomas M. Jorde & David J. Teece, Antitrust Policy and Innovation: Taking Account of Performance Competition and Competitor Competition, 147 J. Inst'l & Theor. Econ. 118 (1991).
- 3 David J. Teece & Mary Coleman, The Meaning of Monopoly: Antitrust Analysis in High-Technology Industries, 43 Antitrust Bull. 801 (1998).
- 4 Christopher Pleatsikas & David J. Teece, The Analysis of Market Definition and Market Power in the Context of Rapid Innovation, 19 Int'l j. Indus. Org. 665 (2001).
- 5 J. Gregory Sidak & David J. Teece, Dynamic Competition in Antitrust Law, 5 J. Competition L. & Econ 581 (2009).
- 6 Nicolas Petit & David J. Teece, Innovating Big Firms and Competition Policy: Favoring Dynamic over Static Competition, 30 Indus. & Corp. Change (2021).

7 Joseph A. Schumpeter, Capitalism, Socialism and Democracy 83 (1942).

cesses, embraces a more powerful form of competition that both erodes and destroys existing profit streams.⁸ Unfortunately, Schumpeter did not make his perspective operational in any meaningful sense. Nor did he draw distinctions between types of technologies. And it remains open to interpretation whether the "creative destruction" that Schumpeter talked about is a "continuous" process, or one that occurs in "perennial gales," leaving open the question of what should be done in the interim.

Hayek and other Austrian economists did not fare better than Schumpeter in terms of policy influence. The essence of competition within the Austrian school is the dynamic pattern by which competition arises and proceeds, not the equilibrium never attained. Because this perspective was inconsistent with optimization and equilibrium models that economists favor, it was largely ignored by the mainstream and has therefore had almost no impact on public policy formulation and implementation.

An opportunity for dynamic competition to receive attention by competition economists occurred at the time when the Chicago School bequeathed to the world the field of law and economics in the 1960s; but the opportunity was missed. Chicago made a magnificent intellectual contribution to policy by injecting economics into the law. Nobel Laureate Ronald Coase's "The Problem of Social Cost" was perhaps the beginning of that new field.⁹ Insights and methodologies spilled over to the emerging subfield of antitrust economics. Microeconomic theory was employed to provide new and valuable insights.

Unfortunately, microeconomic theory, both back then and now, affords little room for incorporating technological innovation. In my own research I complained bitterly about this beginning in the late 1980's. When considered, R&D and investments in innovation were just costs with uncertain benefits. Efficiency, not innovation and growth, was seen as the pathway for the business enterprise to maintain competitiveness and deliver benefits to consumers. The standard tools of micro-economics under perfect competition were employed. Firms were viewed rather primitively as "production functions." Along the way, Robert Bork urged the antitrust community to use the model of perfect competition "as a guide to reasoning about actual markets," and to illustrate allocative efficiency.¹⁰ Table 1 outlines the underlying features and theoretical structures.

FEATURE	STATIC COMPETITION	DYNAMIC COMPETITION
Intellectual Traditions	Neoclassical Economics	Capability, Complexity, and Evolutionary Economics
Engine of improvement	Efficiency	Innovation
Guiding principle	Equilibrium	Disequilibrium
Metaphor	Market Exchange	Managerial Asset orchestration
Managerial challenge	Well defined problem; profit maxi- mization goal	Wicked problem solving required in VUCA enviroments; profit seeking goal
Rationality	Hyperrationality	Bounded rationality
Time horizon	Short run	Long term
System	Closed	Open
Method	Newtonian mathematics with Walrasian competitive equilibrium models; mathematical "hardness" favored over relevance	Computational economics, evolutionary modelling, statistical analysis, case studies; relevance favored over hardness;
Evolution of firms and markets	Stasis	Constantly transforming/evolving
Source of rents (profits)	Hicksian, Porterian	Ricardian (scarcity) and Schumpeterian (innovation)

TABLE 1. Characteristics of Static and Dynamic Competition

10 Robert H. Bork, The Antitrust Paradox: A Policy At War With Itself 60 (1978).

⁸ Id. at 84.

⁹ Ronald H. Coase, The Problem of Social Cost, 3 J.L. & ECON. 1 (1960).

The post-Chicago antitrust revolution of the 1980s did little to change the direction of travel. Competition policy continued to rest heavily on neoclassical economics, and was heavily theory driven.¹¹ Stylized models of competition were embraced that left little room for innovation. When innovation was considered, the focus was always on how competition drives innovation. How innovation drives competition was ignored.

As competition policy became more theory-driven, the analytical tools used have tended to oversimplify still further hard-to-model empirical phenomena, such as the impact of innovation on competition. Game theory, for example, supplied general explanations for empirical regularities found in oligopoly markets, but has failed to give predictions reflective of the complexity of marketplace competition because it is dependent on unattainable exactitude in the specification of firms' strategies and timing of actions.¹²

The well-known, and elegant, modern theory of multisided markets has similar shortcomings. Multisided market theory has produced multiple efficiency and inefficiency possibility theorems, without however supplying clear policy guidance to real-world decisionmakers. And when economists have tried to be more empirical and moved to consider technological change, then, innovation has been measured by proxies like patent counts and R&D expenditure, which give at best crude insights and occasional clues about the complexity of the processes involved in innovation-led dynamic competition. While there has been some limited progress, static competition perspectives still dominate the analytical models employed in competition policy. Despite the explicit recognition of dynamic competition by the UK CMA, we are still far from the coherent paradigm change called for by some agency officials, as discussed below.

B. The Temptation of the Dynamic Competition Paradigm

The need for competition policy to consider dynamic competition has been apparent long before the advent of Big Tech firms and the emergence of the current debacle in competitive policy globally. In 1985, the former head of the U.S. Department of Justice Antitrust Division, William F. Baxter, wrote "the contribution of technological advances to our economic well-being is very substantial when compared to the damage that could be caused by restrictive behavior the antitrust laws seek to halt."¹³

Twenty-five years later, Federal Trade Commission ("FTC") Commissioner Thomas Rosch found that circumstances had not changed very much. Attempting to explain why the enforcement agencies had failed to embrace dynamic competition, his candor was both revealing and concerning:

> Antitrust enforcement has historically focused on static [rather] than dynamic analysis...for a number of reasons. First the antitrust community... both lawyers and economists...have far greater familiarity and comfort with static analysis rather than dynamic analysis. Second, there is less incentive for parties to take the time to develop arguments based on dynamic analysis. Third, there is the perception – right or wrong – that dynamic analysis is less well developed and less measurable than static analysis.¹⁴

Almost a decade later, Commissioner Christine Wilson of the FTC lamented again that frameworks that incorporated dynamic competition had been neglected noting that "the economic literature also acknowledges that innovation over the long run will deliver very large consumer welfare gains." She went on to note that competition policy authorities "routinely struggle to account for dynamic effects."¹⁵

Finally, about 5 years ago, the Organization for Economic Co-operation and Development ("OECD") stressed that "the methodology of competition authorities should move from a focus on static competition towards dynamic competition" without, however, lessening their "commitment to the rigor of evidence-based enforcement."¹⁶

Baxter, Rosch, Wilson, and the OECD calls to integrate dynamic competition analysis in policymaking have, with minor exceptions (such as the initial steps of the UK CMA), remained unanswered.

11 E.g. Jean Tirole, The Theory Of Industrial Organization (1988).

12 See Franklin M. Fisher, Games Economists Play: A Noncooperative View, 20 Rand J. Econ. 113 (1989).

13 William F. Baxter, Antitrust Law and Technological Innovation, 1 Issues in Sci. & Tech. 80, 82 (1985).

14 J. Thomas Rosch, Commissioner, Fed.Trade Comm'n, Promoting Innovation: Just How "Dynamic" Should Antitrust Law Be? Remarks at the USC Gould School of Law 2010 Intellectual Property Institute (March 23, 2010), https://www.ftc.gov/sites/default/files/documents/public_statements/promoting-innovation-just-how-dynamic-should-antitrust-law-be/100323uscremarks.pdf.

15 Quoted in Eileen McDermott, FTC Commissioner Christine Wilson Tells Patent Masters Attendees FTC v. Qualcomm Decision "scares me", 'IPWATCHDOG (September 11, 2019),

https://www.ipwatchdog.com/2019/09/11/ftc-commissioner-christine-wilson-tells-patent-masters-attendees-ftc-v-qualcomm-decision-scares/id=113222/.

16 OECD Secretariat, The Impact of Disruptive Innovation on Competition Law Enforcement, Executive Summary of the Global Forum on Competition (October 29-30, 2015), DAF/COMP/GF(2015)15/FINAL 08-Sep-2017 https://one.oecd.org/document/DAF/COMP/ GF(2015)15/FINAL/en/pdf. Models of innovation-driven competition have nevertheless been developed and understood outside of the field of economics... in the innovation management literature. Clay Christensen's "Disruption" model is outlined in *The Innovator's Dilemma*. He sought to answer two main questions: (a) why is durable competition advantage so difficult to maintain? and (b) is innovation really as unpredictable as many believe? His model was built from close observation of the disk drive, mechanical excavators, and integrated steel industries.

Management plays a key role in Christensen's model of dynamic competition. The dilemma he saw was that "the logical, competent decisions of management that are critical to the success of their companies are also the reasons why they lose their positions of leadership." ¹⁷ He remarked that:

> "Disruptive technologies bring to a market a very different value proposition... generally disruptive technologies underperform established products in mainstream markets. But they have other features that a few (and generally new) customers value. Products based on disruptive technology are typically cheaper, simpler, smaller, and frequently more convenient to use." ¹⁸

He noted that some companies tend to offer customers more than they would prefer to pay for. This overkill opens opportunities for new entrants to enter with lower price and quality products, and then improve their performance in a manner that undermines the incumbent.

His model is akin to Schumpeter's, and it provides insights into some the mechanisms of Schumpeter's creative destruction. Christensen showed that incumbent firms often fail to respond to competition from new entrants with low priced or quality products because doing so would cannibalize existing revenue and profit streams. And whereas Kenneth Arrow assumed impenetrable entry barriers shielding a patent monopolist¹⁹, Christensen pointed to the soft "underbelly" of incumbents because of the cognitive blind spots of the top management team. New entrants are not saddled with conventional managerial wisdom, established value networks, or existing technological performance trajectories to follow. That is why they often overturn the incumbents.

Interestingly, some version of the above is commonplace understanding in the field of (technology) management. These regularities appear to turn the standard model of static competition and industrial organization on its head. While established competition policy analysis tends to treat incumbency as a benefit, the (technology) management literature more often considers incumbency as a liability.

It should be noted that the (industrial) economics that informs competition policy puts far too much weight on incentives as an explanation for everything. While incentives are critical, they are not the only consideration that drives outcomes with respect to investment, pricing, output levels, etc. One can have heavy incentives to engage in certain actions and behaviors; but incentives alone do not dictate outcomes. Capabilities matter too, and these are shaped by the resources and assets at the disposal of the enterprise, as well as by an organization's history, it's business model, and its strategy. These are among the considerations agencies must begin to examine.

At their core, many popular and accepted strategic management models embody a number of assumptions and propositions that are characteristic of dynamic competition. Some are rooted in evolutionary theory. And most accept some version of an organizational capability theory of economic change, along with a behavioral theory of the firm. These models and others like them can no longer continue to be ignored by so many competition policy scholars and agency employees.

U3 ENTER EVOLUTIONARY AND CAPABILITY ECONOMICS

Dynamic competition implicitly rests upon a theory of the innovating firm which is markedly different from the simple microeconomic models of firms which populate introductory, intermediate, and advanced economic textbooks. Textbook theories caricature the business enterprise as we know it. In this section we explore whether research in evolutionary economics and strategic management can help fill the void that exists (in the field of industrial organization/ antitrust economics) with respect to the theory of the firm and its likely future evolution. Such a framework is necessary if one is to have any hope of doing meaningful "but for" or counterfactual analysis to assess potential and nascent competition, identify potential competitors, and otherwise give substance to a dynamic competition framework where innovation is the driver of competition, and where efficiency must take a back seat to efficacy.

¹⁷ Clayton M. Christensen, The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail xvii (1997).

¹⁸ Id. at xix.

¹⁹ For a discussion of the Arrow-Schumpeter distraction, see Petit & Teece, of cit, footnote 8

A. Evolutionary (and Complexity) Economics²⁰

Concepts of competition are fundamental to both ecology and economics.²¹ Notwithstanding, members of species sometimes cooperate in competing with other species e.g. killer whales herding seals in preparation for a kill. Meanwhile, the traditional economic view (e.g. Stigler) stresses rivalry, not cooperation. Nicholas Kaldor²² & Teece^{23,24} among others have stressed the importance of cooperation and complementarities to the competitive process, and to innovation in particular.

Ecological theory is, however, not a perfect guide. It is perhaps better to think of the business organization not as a biological system evolving naturally, but as an economic entity guided and shaped by management, what one might call "evolution with design." Evolutionary processes are the "blind" result of past events, not necessarily making species/organizations well suited for the future.

What makes an organization well suited for the future is not just its evolving ordinary capabilities, but also its dynamic capabilities, i.e. the ability to sense, seize, and transform and to shape the business environment, and not just be shaped by it.

With the above in mind, and as already noted, the basic notion of the advantage of incumbency in industrial economics must be turned on its head in many circumstances. The business firms that have been successful in the past are not necessarily best suited for the future where the business environment will be different. Indeed, with digital transformation, quite the opposite is likely to be true. So those that have survived today are not necessarily the fittest for the future, even if they are the fittest for the moment. Whether they stay fit depends very little on market structure and market power. Nor does it depend on their organization structure. Rather it depends critically on their (entrepreneurial) management, or lack thereof.

In biology, evolution is closely linked to reproduction and continuation. However, this is not necessarily so in business and economics, especially since business environments change much more rapidly than biological ones. The fittest in an evolutionary sense need not be the most efficient (optimizing a particular subgoal) but those balancing being fit for the present and being fit for the future. This balancing act requires strong dynamic capabilities. As the biologist Marian S. Dawkins notes "an animal that gathers food optimally... is so intent on feeding that it gets eaten by a predator."²⁵

Optimality and efficiency are the concern of (static) competition; innovation and change are the focus of dynamic competition. Thus, evolutionary economics along with complexity economics²⁶ eschews a single-minded focus on market equilibrium in economies and refocuses instead on dynamic processes (that include irreversibilities) that effectuate economic change. Dynamic processes emerge from actions by diverse agents that are boundedly rational, and who learn from experience. Firms are guided by their past and by entrepreneurial leaders, not by internal shadow prices. Market structure has little to do with outcomes.²⁷

B. The Capabilities Perspective

Evolutionary and complexity economics has significant overlap with the capabilities perspective. Evolutionary thinking has been influential in strategic management and has helped undergird the dynamic capabilities framework, particularly in its first iteration.^{28,29} In that early version, the capabilities perspective focused on the role of history in

20 Certain branches of economics have influenced evolutionary theory. This is widely believed that the economist Malthus influenced Darwin's "origins of the species" and the role of natural selection. Before reading Malthus, Darwin apparently believed that living things reproduced just enough individuals to keep population stable. With Malthus he came to understand that populations could breed beyond their means, leaving survivors and losers in the effort to exist. Darwin then understood that the variety he saw in the wild would leave some individuals better able to survive and reproduce.

- 21 Jack Hirshleifer, Economics From a Biological Viewpoint, 20 J.L. & Econ. 1 (1977).
- 22 Nicholas Kaldor, Equilibrium Theory and Growth Theory, in Economics and Human Welfare 273 (Michael J. Boskin, ed., 1977).

23 David J. Teece, *Profiting from Technological Innovation: Implications for Integration, Collaboration, Licensing and Public Policy*, 15 Res. Pol'y 285 (1986).

24 Antitrust, Innovation, and Competitiveness, Thomas M. Jorde & David J. Teece (eds.), Oxford: Oxford University Press (1992) and David J. Teece "Competition, Cooperation, and Innovation: Organizational Arrangements for Regimes of Rapid Technological Progress" *Journal of Economic Behavior and Organization* 18:1 (June 1992), 1–25.

- 25 Marian Stamp Dawkins, Unraveling Animal Behavior 21 (1986).
- 26 Arthur, W.B. Foundations of complexity economics. Nat Rev Phys 3, 136–145 (2021).
- 27 The business enterprise is built by entrepreneurs and is an integral part of the market, and is the domain of non-prized assets. However, evolutionary economics and organizational ecology do not recognize strategy. Choices are only made when the company is founded.
- 28 David J. Teece & Gary Pisano, The Dynamic Capabilities of Firms: An Introduction, 3 Indus. & Corp. Change 537 (1994).
- 29 David J. Teece, Gary Pisano & Amy Shuen, Dynamic Capabilities and Strategic Management, 18 Strategic Mgmt. J. 509 (1997).

shaping the degree to which a firm can reconfigure its assets. Capabilities can be either strong or weak, and a firm's "evolutionary path ... is often rather narrow" ³⁰ even when it has strong (ordinary) capabilities.

Note that the definition of dynamic capabilities "an organization's ability to achieve new and innovative forms of competitive advantage given path dependencies and market positions" stresses the need to "integrate, build, and reconfigure *internal and external* competences to address rapidly changing environments" (italics added).³¹ This has important ramification for M&A policy as it indicates the importance of strategic alliances and M&A activity to the maintenance of firm level competitive advantage, and hence to dynamic competition. The dynamic capabilities framework recognizes that some firms can effectuate discontinuous organizational transformations.^{32,33} Entrepreneurial managers can search not just locally but widely for new opportunities and introduce routines more distant from existing ones than are typically contemplated in the evolutionary literature. Call it evolution with design — or even better, evolution with design, purpose, and strategy. Such (entrepreneurial) managerial behavior is the engine of dynamic competition. Figure 1 summarizes some key parameters that impact the speed and difficulty of change.³⁴

FIGURE 1. Three dimensions of "distance" impacting enterprise transformation



Business Model Distance

The trade-off between the cost and speed of change can be mitigated to some extent by advanced preparation in the form of creating a culture of innovation and resilience. An open, agile culture cannot be created overnight. Like absorptive capacity, it builds over time and lowers the cost – and expands the range – of future strategic choices.³⁵ Imposition of radical change in an organization that is not suitably prepared is likely to create problems that can potentially undermine strategic renewal.³⁶

Dynamic capabilities animate dynamic competition. The key clusters of activities that constitute dynamic capabilities can

30 *Id.* at 524. The initial definition of dynamic capabilities is "the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments." *Id.* at 516.

32 David J. Teece, *Explicating Dynamic Capabilities: The Nature and Microfoundations of (Sustainable) Enterprise Performance*, 28 Strategic Mgmt. J. 1319 (2007).

33 David J. Teece, A Dynamic Capabilities-Based Entrepreneurial Theory of the Multinational Enterprise, 45 J. INT'L BUS. STUD. 8 (2014).

34 Figure 1 from David J. Teece, A Capability Theory of the Firm: An Economics and (Strategic) Management Perspective, 53 N.Z. Econ. Papers 1, 12 (2019).

35 Shaker A. Zahra & Gerard George, Absorptive Capacity: A Review, Reconceptualization, and Extension, 27 Acad. Mgmt. Rev. 185 (2002).

36 David J. Teece, Strategic Renewal and Dynamic Capabilities: Managing Uncertainty, Irreversibilities, and Congruence, in Strategic Renewal: Core Concepts, Antecedents, and Micro Foundations 17-48 (Aybars Tuncdogan et al. eds., 2019).

³¹ Id. at 516.

be categorized as sensing, seizing, and transforming.^{37,38} See Figure 2.³⁹ These activities are the domain of the organization, under the guidance of top management and boards of directors. This highlights the fact that the actions and behaviors of management and boards can no longer be ignored. If competition policy is to embrace dynamic competition, it will now have to review the action and proclivities of management teams and boards of directors.



FIGURE 2. Foundations of dynamic capabilities and business performance

Sensing, in the dynamic capabilities context, is the ability, under Knightian uncertainty, to either recognize opportunities before they are fully apparent or, in some cases, create new ones.⁴⁰ While there are underlying routines, the signals that feed into them should come from near and far, leaving it to the relevant decision maker(s) to make sense from them, as a prelude to making strategy.

In the dynamic capabilities framework, seizing involves execution. That in turn involves the implementation of business models, the orchestration of data, the achievement of strategic alignment, and the setting of firm boundaries, and the making of investment commitments.⁴¹

Dynamic capabilities allows and requires proactive managers to effectuate organizational transformation in anticipation of environmental change, not waiting to adapt to changes after they occur. The development of firms is not by any means completely path dependent or limited to best-practice or equifinal routines. Instead, distinctive, higher-order routines, rules of thumb, and/or managerial approaches lead to distinctive evolutionary paths. Excellence not only in search ("sensing" in dynamic capabilities terms) but also in sensemaking (Teece, 1998) affords the firm the opportunity to stay ahead of competitors and to animate dynamic competition in multisided marketplaces. When other factors are not decisive, the dynamic capabilities of the top management team may need to come into focus in the merger review process.

³⁷ Teece, *supra* note 32.

³⁸ David J. Teece, Dynamic Capabilities: Routines versus Entrepreneurial Action, 49 J. Mgmt. Stud. 1395-1401 (2012).

³⁹ Figure 2 from Teece, *supra* note 32, at 1342.

⁴⁰ Constance E. Helfat & Margaret A. Peteraf, *Understanding Dynamic Capabilities: Progress Along a Developmental Path*, 7 Strategic Org. 91 (2015).

⁴¹ Aspects of these activities can be found by reading between the lines of the evolutionary literature, but they are certainly not given the full attention they merit in terms of their strategic importance. More importantly, evolutionary economics gives too little attention to the dimension of time, particularly the urgency needed for effective seizing.

04 THE POTENTIAL COMPETITION DOCTRINE AND ITS (LIMITED) EVOLUTION

A. Introduction

The UK CMA notes that "unilateral effects may also rise from the elimination of potential or dynamic competition."⁴² It goes on to note that "existing firms and potential complementors can interact in an ongoing competitive process, and a merger could lead to the loss of dynamic competition.

Antitrust analysis in the tech sector has struggled for almost a century to develop a robust theory of potential competition and it is encouraging to see the CMA grapple with the problem. It has become an important topic because of allegations that some competition agencies have allowed mergers of companies that were nascent or potential competitors that could have become actual competitors to established platforms. Of course, if one accepts the notion -- and I do not -- that path dependency and first move advantages lead inexorably to dominance -- at least once the market has tipped -- then there is little value to preserving the independence of a potential competitor, at least not post any supposed tipping point. The reason is that it would be irrelevant as nothing could stop the incumbent platform juggernaut. However, the notion of inexorable dominance is not empirically valid in the platform economy as Evans & Schmalensee⁴³ and others have demonstrated; so potential competition can still be effective. In the context of platforms, this means that new entrants/small firms can siphon off users; it also means that their very presence can help condition the behavior of incumbents.

In the United States, Clayton Act Section 7 applies not only to mergers between actual competitors, but also mergers with potential competitors. This is true especially when there are few or no other potential competitors "waiting in the wings." With the 2010 U.S. merger guidelines, it was recognized that mergers between potential competitors raise horizontal, not conglomerate concerns. The guidelines recognize that if there are plenty of potential competitors waiting in the wings, the elimination through mergers of one such competitor is of no moment.

As noted, there has been almost no development or advances for a century to the theory of potential competition despite the obvious importance of the topic, not just to entry analysis but to the understanding of new enterprise development. The topic is poorly developed because the field of economics ignores the capabilities of firms (or assumes they are all the same... though perhaps they may have different costs and likely future trajectories of development). Neoclassical Economists prefer to frame the impact of potential competition merely in terms of limit pricing. This is very much an industrial age perspective and a highly stylized and very limited view of potential competition that once again ignores innovation and disruption. Furthermore, it ignores the capabilities of individual firms... both incumbents and new entrants.

The capabilities of firms are clearly relevant to the assessment of potential competition but as noted are generally ignored. A firm specific inquiry is required. The OECD's assessment of the status quo is that: "Competition agencies do not know the probabilities, nor the possible actions." The agencies nevertheless somehow supposedly make an assessment. Hopefully they look at internal documents, but without some type of framework for assessing capabilities, it is hard to image that any kind of sound analysis takes place.

What is required is a framework for counterfactual analysis: but for the merger, would a potential competitor emerge and enhance competition in the industry? The fundamental question to answer is "What is the strength of the competitive threat that the nascent rival would pose?" To answer this question, a new set of concepts and tools are needed, and this is the focus of much of the rest of the paper. The analysis is done from a dynamic competition perspective

B. Current State of Play on Potential Competition

The long and short of it is that the potential competition doctrine is hollow, and the courts have not put weight on it. Competition economists have not yet been able to put substance into it. Looking just at the incentives that a rational new enterprise faces is insufficient. Capabilities and their likely future evolution matter. The absence of such considerations in the theory of potential competition is not the result of Chicago School economics, as some might claim, but of the dominance of static (neoclassical) economics in which the firm is still largely a black box.

Being bereft of any helpful theories, courts have quite sensibly generally tried to conduct factually oriented inquiries concerning whether firms were poised to enter a market. They have tended to look at (1) competition in a relevant market and trends (2) business attributes of the alleged potential entrants and (3) decisions and actions that the identified potential entrant has taken in the recent past. The focus is very rarely (perhaps never?) an investigation of the attributes of the potential competitor nor an assessment of the likely evolutionary path of the business or of the development of

⁴² OECD Secretariat, supra note 18.

⁴³ David Evans & Richard Schmalensee, Matchmakers: The New Economics Of Multi-Sided Platforms (2016).

their capabilities. This is not because such an assessment is irrelevant. Rather, it is because it is difficult. There is no help from mainstream economic theory and few academic or agency economists have studied the business and managerial literature where important clues can be found.

A new and better approach would require assessing the organizational capabilities of the potential competitor along with its financial wherewithal and the basic economics at work (e.g. scale, scope, and network effects). These issues are important enough that the enforcement agencies and competition policy scholars must now begin to rise to this challenge.

05

OPERATIONALIZING A DYNAMIC COMPETITION/ DYNAMIC CAPABILITIES PERSPECTIVE FOR ASSESSING POTENTIAL COMPETITION AND PLAFORM MERGERS AND ACQUISITIONS

In general, technology driven businesses and marketplaces are fundamentally different from low tech companies. The rate of technological and organization change is high, and entry is common. Capabilities can be augmented through R&D and through acquisition. Data lakes and data pools often matter a great deal.⁴⁴

A. Relevance of Big Data Orchestration Capabilities

Platform mergers and acquisitions are often driven by the ability of a platform leader to bring deep data orchestration capabilities to other circumstances. Economics of scale and network effects are also important considerations. All three together along with strong dynamic capabilities are needed to create winner-take-most situations. With access to data and advancements in artificial intelligence and machine learn-

ing, user/customer data stored, analyzed, and combined and recombined can be used to enhance services and provide more tailored or personalized services, and better matched services to other users on the platform. In economic terms, these technologies help enhance economies of scope. As I noted elsewhere,⁴⁵ in order to be able to access economies of scope, integration (i.e. common ownership) is sometimes required. If contractual arrangements are possible, and the target entity is otherwise viable, a strategic alliance may suffice. However data driven economies of scope are obtained, they enrich platform ecosystems because they enable further platform expansion. Insights gleaned can be utilized horizontally (in adjacent markets) and vertically. With respect to horizontal, it can enable "broad spectrum competition" i.e. projection into complementary marketplaces. With respect to vertical, data can be used to compete with upstream producers. As Parker & Van Alstyne note, "mobile operating platforms have entered lucrative upstream applications such as music streaming, mapping, news provision, and fitness. Amazon frequently enters the markets of its suppliers." 46

Network economies and economies of scope mentioned above are also augmented in the platform context by economies of scale because of the fixed cost nature of information services. The marginal cost of supplying another customer is often close to zero, once the digital goods are created. These three potential economies can advantage established platforms, but only so long as they are adept at managing the platforms and the associated business.

B. The Blurring of Traditional Distinctions⁴⁷

Structural analysis still matters in the digital economy; but it is no longer just market structure. A structural analysis of digital markets is incomplete without both an analysis of all the structures (e.g. ecosystems, markets, institutions) and capabilities that matter.

In digital industries, products that are imperfect substitutes or complements often compete against each other dynamically for user demand.48 Much anecdotal and empirical evidence shows that competitive pressure arises from nonsubstitute products, services, and business models that modify the relative preferences of users, raise the opportunity cost of present product consumption, and shift the demand curve for existing products inward. For example, users experienced lower relative utility from consumption of (i) desktop computers with the introduction of mobile

⁴⁴ See C. Baden-Fuller, J. Blair, & D. Teece ""Evolution or Disruption in Consumer Goods Industries: The role of Distributed Service Providers and their Dynamic Capabilities" *California Management Review*, forthcoming

⁴⁵ David J. Teece, Economics of Scope and the Scope of the Enterprise, 1 J. Econ. Behavior & Org. 223 (September 1980).

⁴⁶ See Parker, G., G. Petropoulos, M. Van Alstyne "Platform Mergers and Antitrust." Industrial and Corporate Change (2021), (p3).

⁴⁷ This section draws upon Petit & Teece, supra note 7.

⁴⁸ Ron Adner & Marvin Lieberman, Disruption Through Complements, 6 Strat.Sci. 91 (2021).

phones; (ii) web browsers with the development of search engines; and (iii) comparison shopping websites with the growth of merchant platforms. Unfortunately, conventional market definition methods that focus on actual (static) patterns of user substitution between rival products tend to discount that potential (dynamic) constraint.

In short, not only are traditional distinctions between horizontal and vertical blurred in ecosystems; the distinction between complement and substitutes is also blurred, rendering typical competition analysis of very limited value. A misplaced focus on static patterns of substitution has been clearly in display in the EC Google Android decision. Here, the EC held that Google did not compete with Apple in smartphone operating systems ("OS") on the ground among other things - that Apple's iOS was not licensed to third party OEMs. The EC market definition is inconsistent with historical evidence showing that Android entry stole smartphone users from Apple despite their distinct business models, and with contemporary evidence suggesting that both ecosystems compete for users by product differentiation on choice variables like privacy.49 The EC market definition in Google Android also leads to curious implications such as the idea that a merger between Apple and Google in smartphone OS would be prima facie unproblematic, absent actual horizontal overlaps.

The problems of static market definition might be mitigated by a revamped doctrine of potential competition. The term "revamped" is used because the conventional assessment of potential competition determines whether firms located in other markets or industries have incentives to repurpose assets to compete deploying close-to-perfect substitute products with established firms. In digital industries, firms compete by indirect entry.^{50,51} The dominant mode of competitive attack consists in supplying differentiated products,⁵² complements, or "new combinations."⁵³ In particular, competitive pressure might be exercised by products relying on different technological infrastructures or supported by distinct business models, or supplied through specialized vendors. Head-to-head entry with very similar products is often difficult, or even completely unwise. Nonrival competition is the rule, not the exception.

The reason for the greater ease of leveraging complements

to produce competition than substitutes is easy enough to see. There are limited switching costs to complements on the user side. Users benefit from adding additional functionality to an existing product. By contrast, there are often switching costs to substitution on the user side due to the loss of sunk experience, learning, convenience, etc. (all the more when multi homing is not possible). A rational supplier thus quickly understands that there may be more short-term user surplus to extract from complements than substitutes.

Moreover, in the mid to long term, value can shift from the core product to the complement, as incremental improvements are introduced. A complement supplier can thus adopt a two-stage strategy that consists in breaking first the entry barrier of an ecosystem with a complement, and then attacking the insulating barrier that protects the core product. The end game may be one in which all the value is siphoned away from the core product. Accordingly, one should view ecosystem competition from a 360° perspective. There is a certain amount of rents. Competition is vertical, lateral, and horizontal. Competition is for rents, not users, *per se*. Though this lens complementors compete along with direct competitions.

With this in mind, the correct approach to potential competition and entry analysis more generally consists in putting more weight on Schumpeterian factors that keep nominal "monopolies" under competitive pressure. This has two consequences, one on market definition, the other on potential competition predictors. To start, because technological competition requires a longer time period to unfold than price competition, the boundaries of any market assessment must comprise all entrants with a potential entry path over a 4-year period (compared to the existing 5 percent 1-year threshold used to assess substitution in supply and demand). Market definition is no more than a tool, a method, and is not always a necessary step. As one court noted, "A market definition should 'recognize competition where, in fact, competition exists,' and should include all significant competition even though that competition differs in form or nature."54

Second, potential competition should not focus just on supply side substitution possibilities, but on technology "peers." The inquiry should in particular focus on the magnitude of the technological capabilities of competitive peers,

49 Nicolas Petit, Big Tech and The Digital Economy: The Moligopoly Scenario (2020).

52 Pleatsikas & Teece, *supra* note 5.

53 Joseph A, Schumpeter, The Theory of Economic Development: An Inquiry Into Profits, Capital, Credit, Interest, and the Business Cycle (Redvers Opie, trans. 1934).

54 Transamerica Computer Corp. v. International Business Machines Corp., 481 F.Supp. 965, 978 (N.D. Cal. 1979), citing Brown Shoe Co. Inc. v. United States, 370 U.S. 294, 326 (1962).

⁵⁰ Id.

⁵¹ Timothy F. Bresnahan & Shane Greenstein, Technological Competition and the Structure of the Computer Industry, 47 J. Indus. Econ. 1 (1999).

the disciplinary effects of the R&D programs of competitive peers even if new products are not yet in the market, and the magnitude of other competitive peer's patient capital.

C. Ecosystems (versus Relevant Markets) as Linchpin of an Operational Dynamic Competition Framework

I now turn to the difficult task of assessing capabilities and the viability of entry by a firm not currently a competitor, but which might nevertheless be (provisionally) thought of as a potential competitor.

In the context of platforms, competition can no longer be meaningfully assessed with the help of relevant (antitrust) markets. This is not only because multiple markets may be implicated (in the context of n-sided markets) but also because platform business models often result in certain sides being provided "free" (e.g. Google search) while other sides pay (in the case of search, it is the advertisers). Furthermore, the innovation that takes place and the dynamic competition that results is not just the result of the efforts of the platform owner/leader/conductor, but is also of the results of the efforts of many third parties such as app developers. Hence, adopting dynamic competition as the standard requires that one focus on the health of the ecosystem.

An ecosystem enables complementary products and services through collaboration with other companies or business units. Uber began with ride sharing but then added Uber Eats, Uber Health, Uber, and Jump Bike. Ecosystem expansion benefits both providers and consumers as it is more convenient to order services on a sample platform. With ecosystems, data is often shared between the platform leader/ conductor and ecosystem partners. In strong ecosystems, partners do not just transact; they interact. Data is sometimes shared even beyond the ecosystem to external partners that can help improve the customer experience. ⁵⁵

With ecosystems, standard upstream/downstream distinctions blur. As Parker & Van Alstyne note, "users create value for other users, as in the case of user generated content, and suppliers create value for other suppliers as in the case of shared developer files."⁵⁶

A fundamental question which can help guide competition policy is to ask whether the merger/acquisition improves the health/robustness of the ecosystem? Even if it is the dominant ecosystem which is doing the acquiring, having it improved with respect to innovation and expansion will help all constituencies in the ecosystem, unless the ecosystem leader extracts too much of the rents; but if they do, it will weaken the ecosystem. Accordingly, it is somewhat important to have assurances with respect to the stewardship of the ecosystem; and with respect to an established platform, that is best assessed by examining the past stewardship (or lack thereof) behavior of the platform owner/leader/conductor.

Thus, a prelude to assessing the impact of M&A transactions on innovation and competition, one must ask whether the ecosystem will be harmed... harmed in the sense of reduced innovation, and/or whether the experience of users (convenience, choice, etc.) is compromised, or whether the opportunity for complementors to add complementary services is impaired in some way.

Various theories have also been raised about how M&A activities impact venture capital availability. The availability of lucrative exits conditions the flow of venture capital and stimulates new enterprise development in the ecosystem. On the other hand, platform leaders can also "hollow out" startups through predatory behavior of one kind or another, including certain types of acquisitions... particularly ones that simply shut down the new technology... or just put it on the shelf.

Yet another argument lurks in the background. It is the argument that even if the incumbent platform does not undertake any traditional anti-competitive actions, the reduction in prospective payoffs to entrants creates a "kill zone" where entry is hard to finance because the upside is somehow taken away by technology acquisitions.⁵⁷ The claim is that market entry rates and the supply of venture funds... decline in what is the "target" or kill zone for the platforms. The narrative is that once the big tech firm has made one such acquisition, it is unlikely to make another. Some claim evidence a "drop off" in venture capital investments in startups in sectors where Facebook and Google make major acquisitions. The implicit accusation in this narrative is that the founders discount rate is too high, due to a variety of factors. Systemic underpricing of IPOs is one of them. Taxation also plays a role. Big tech incumbents' market power might be yet another factor.

It is sometimes alleged that incumbent (pharmaceutical) firms acquire innovative targets with the goal of shutting down their innovation projects and preempt future competition leading to "killer acquisitions."⁵⁸ One study showed that acquired drug projects are less likely to be developed after being acquired. The comparison with pharma is quite inapposite. The nature of competition is quite different with technology platforms

58 Colleen Cunningham, Florian Ederer, & Song Ma, *Killer Acquisitions*, 129 J. Pol. Econ. 649 (2021).

⁵⁵ Erich Joachimsthaler, The Interaction Field: The Revolutionary New Way to Create Shared Value for Businesses, Customers, and Society 21-38 (2020).

⁵⁶ Van Alstyne, Marshall W. & Geoffrey G. Parker. "Platform Business: From Resources to Relationships." *NIM Marketing Intelligence Review* 9 (2017): 24 - 29.

⁵⁷ Sai Krishna Kamepalli, Raghuram Rajan, & Luigi Zingales, *Kill Zone* (Nat'l Bureau of Econ. Res., Working Paper No. 27146, May 2020).

and there is far less clarity as to the evolutionary path of a technology firm. With the FDA process, it is very transparent to incumbent pharma companies what the potential new entrant will be putting into the market.

Tim Wu has amplified this killer app narrative with his use of the "Kronos effect," which supposedly hurts innovation, efficiency, openness, and decentralization.⁵⁹ However, without a theory of dynamic competition, it's not clear that Wu's prescription of "overregulation" to prevent practically all M&A makes any sense whatsoever. Wu believes that AT&T pre the 1984 divestiture was suppressing innovation when it was, in fact, actively driving it with tremendous innovation stemming from Bell Labs. His account is wrong there, and is likely wrong elsewhere.

None of these theories carry much weight unless combined with an assessment of the "but for" likely growth trajectory of the target potential competitor. Needless to say, this is a difficult challenge that even venture capitalists and management teams often have difficulty fathoming. However, it's not an impossible task; but error must be accepted as likely.

06

SOME SPECIFIC CRITERIA AS APPLIED TO ASSESSING M&A

Competition is a means to an end; it is not the end in and of itself. This is particularly true in the platform context. The higher the degree of alignment between the acquiring firm and the target, the greater the scope for benefits. Capabilities are more easily integrated when they are similar. The younger the target, the more malleable and more easily set is likely to be integrated, thereby improving the performance of the ecosystem. Evolutionary economics teaches us that equilibrium analysis is likely highly misleading, suggesting that a good deal of standard antitrust economics needs to be thought about much more carefully. Mergers and acquisitions are an inevitable part of asset orchestration, which is enabled by M&A. M&A is not primarily about efficiencies but about innovation and capability enhancement. The language of efficiency needs to be expunged in the context of innovation. They are at odds with each other.

The fundamental question to ask when assessing an acquisition is whether it will harm dynamic competition (and innovation) within and across ecosystems. The answer to this can be illuminated by recognizing that:

- a) The ecosystem (not the "relevant market") should be the domain of inquiry;
- b) Efficiency is decidedly secondary; innovation ought be the primary welfare criterion.
- c) If there are multiple sides to the platform, benefits to all sides should be evaluated; and because pricing is not the only parameter that constituents care about, then access to services, integration of services, value of services and efficiency of ads, etc. should also receive limelight. This is necessary because horizontal and vertical distinctions are blurred anyway. In assessing the market power of Big Tech, recognize that they all compete across traditional (relevant) market boundaries; so traditional HHI market thresholds are meaningless.
- d) Distinctions between vertical and horizontal markets no longer meaningful as lateral firms (complementors) can become competitors too, and they must be assessed when calibrating the strength of potential competition.
- e) Enquiry is necessary into whether the acquired entity be (i) shut down (ii) left alone (iii) integrated All but (i) are good. After an M&A transaction, capabilities are not lost to the ecosystem (assuming no shut down). If the acquired entity remains in the ecosystem, and is better integrated into the platform, it likely makes the ecosystem more robust and competitive. If multihoming exists prior to acquisition, will it continue post acquisition?
- f) If the platform leader/conductor is the acquirer, what is their track record with respect to nurturing innovation in the ecosystem. If it has a good track record, that helps. If it buys companies and snuffs them out, the agencies are entitled to be skeptical. If it predates against competitors, that is not good. Does it respect other companies' (startups) intellectual property rights or not? Since intellectual property is an important way for new entrants to compete with incumbents, this is an important consideration.
- g) In the case of mergers and acquisitions of new entrants, consideration ought to be given to the unique positioning of the target and the positioning of other potential entrants too. However, uniqueness should not be overplayed, unless it is a firm that has been around a while,

⁵⁹ Tim Wu, The Master Switch: The Rise and Fall Of Information Empires (2010).

because new enterprises can pivot.⁶⁰ Most startups pivot several times before they find their footing. And often, even after they find their footing. As recognized by the dynamic capabilities framework, the key lies in recognizing when it is time to pivot.

- h) Since conventional structural analysis is not meaningful, the analysis of competitive effects is still the way to go... but we must get more flexible about it and introduce ecosystem robustness as the key metric by which to assess competitive effects. Revision to yesterday's structural thresholds is not the way out. Nor is the trotting out the analysis of traditional competitive effects (price and output) all that meaningful anymore.
- Diversification via M&A that builds upon or extends existing capabilities is a form of diversification that a capabilities-based competition policy view as meritorious.^{61,62,63} By contrast, competition policy should adopt less permissive standards towards diversification in areas in which a firm has a low capabilities position. Missing capabilities can often be remedied by M&A activity; blanket prohibitions in mergers are therefore likely damaging to innovation.

07 THE GIPHY ACQUISITION - HARMING DYNAMIC COMPETITION?

An issue that the CMA is actively considering is whether Giphy was or would (or could) become a realistic potential and/or actual competitor to Facebook ("FB") with respect to display advertising. The concern is that the removal through merger of such a competitor (removal from the markets but not the ecosystem) would harm dynamic competition. To assess "competitive effects" it is useful to focus on "innovation effects" as a surrogate. To do so, we must also consider the role of Giphy in the FB ecosystem. If it remains in the ecosystem (even if under the control of FB), then if it is still innovating and is impacting competition. As such, it is even possible that Giphy could bring competition to other parts of FB, although its ability to do so would be at the discretion of FB management.

Giphy is an online database and search engine that allows users to search for and share short looping and sometimes loopy videos with no sound. It was founded in Feb 2013 as a website with a search engine. By August 2013 it had expanded beyond a search engine to allow users to post, embed, and share Graphics Interchange Format ("GIF") digital images on Facebook, i.e. it provides tools to create, share, and remix GIFs. Users can search with keywords and then choose a GIF from among thousands. It is a social platform and search engine.

Giphy was recognized as a top 100 website in 2013 by PC magazine. Three months later, it also integrated with Twitter. Its Giphy tools are often embedded in apps, allowing users to instantly find the right GIF. For Giphy, each search and send of a GIF provides (valuable) customer behavioral data... beacons that can be used to help track how and where an image is being shared.

Ownership of Giphy by FB enables FB to enhance its ad tracking capabilities. It was purchased in 2020 by Facebook. It is now integrated everywhere including on the iOS keyboard. The purchase by FB was reported to come in at a cost of about \$400m, whereas Giphy was reportedly worth \$600M. Pre the Facebook acquisition it was the largest search engine for 6-second videos. Giphy has direct competitors such as Tenor, which was purchased by Google in 2018.

Whereas Giphy was started with 15000 GIFs but now has more than 1billion; it also has 100 million users. However, its business model was not proven at the time of the FB acquisition. One can define a business model as follows:

"A business model articulates the logic and provides data and other evidence that demonstrates how a business creates and delivers value to customers. It also outlines the architecture of revenues, costs, and profits associated with the business enterprise delivering that value."⁶⁴

60 Sometimes this can be facilitated by using a hackathon in which employees are brought together and challenged to produce new ideas. Often, they are used to solve a narrow problem; but they can also be used to figure out what to do next. Using this tool, Odeo became Twitter.

- 61 Teece, supra note 43.
- 62 David J. Teece, Towards an Economic Theory of the Multiproduct Firm, 3 J. Econ. Behavior & Org. 39 (1982)
- 63 Teece, Pisano, & Shuen, supra note 29.
- 64 David J. Teece, Business Models, Business Strategy, and Innovation, 43 Long Range Planning 172 (2010).

It appears from a distance that none of these elements had been well thought out and properly developed/implemented by Giphy.

At the time of the FB acquisition, the 7-year-old company had raised over \$150.9 million in venture capital, but it still had a rather clumsy and unproven advertising model. It would host GIFs for brands and let them pay to promote them in conversations. This generated a very modest (experimental level) income from advertising.

Giphy tried (but failed) to line up licensing deals with media producers and music companies to become a content distribution company. The fundamental business model problem the company struggled with, but never solved, lay in using someone else's original content. Such usage undermines a copyright owner's ability to control derivatives of their work, and where and how their work is shared, and their right to receive proceeds. This does not impact individuals, but it is an issue where commercial use is concerned.

Social media platforms like Giphy and FB develop services they hope will attract a critical mass of users. They then seek to attract a second "side" to the platform... usually advertisers. Advertisers pay to display ads to those users. A large user base and resulting attention from advertisers also spurs activity on a third side i.e. content publisher, who use the platform as a distribution system. Content publishers then share advertising revenue with the platform that steered the traffic. The user does not pay cash but provides attention to the platform and allows the platform to collect personal (behavior) data about the user that assists in selling advertising targeted to that user. Targeted advertising is a good thing... users find it informative.

Giphy was a company that had not found its footing and did not yet have a viable business model. It had very limited capabilities. Its only asset was a user base; but that was hardly a user base that could be used to take on Facebook. Its product was useful across multiple platforms, making it an asset that FB could use.

The mere fact that Giphy might be a potential competitor is of no moment if the innovation in the ecosystem is not harmed by the acquisition. This would follow if: (a) there is plenty of existing competition, and (b) there are other likely or possible competitors, and (c) Giphy left alone would not be a viable competitor to FB, (d) Giphy stays viable in the ecosystem, albeit as part of FB.

Absent an acquisition, Giphy would most likely have failed. It is not my understanding that there were multiple bidders... or that it would have been able to maintain independent status, let alone take on Facebook.

If the threshold to compete with Facebook is as low as Giphy, there are no doubt scores of companies that are

equally qualified as potential competitors. Giphy's products/services are still in the market; so there is likely an improvement in the user experience across all ecosystems/ platforms. That improvement is maintained/sustained by the acquisition.

Put differently, for the competitive effects of the acquisition to be negative, Giphy would, in the "but for" world, have to have:

- 1. Found additional venture capital resources and designed and implemented a viable business model.
- 2. Pivoted to something quite different from what it was... at least with respect to its business model.
- 3. Developed a management team with the audacity and skills to not just survive, and grow nicely, but take Facebook head on.

There is not much information available publicly, so my assessment is highly provisional; but at a first glance the chances of (1), (2), and (3) were close to zero in my judgement. There was very little chance Giphy would become an advertising giant that could take on Facebook.

What is new and challenging with the dynamic competition paradigm is that we are going where competition economists haven't gone before, and opening up the black box of the firm. By not taking up this challenge 50+ years ago, learning has not occurred. As a result, antitrust analysis is not only static. It is silent when it comes to understanding the essence of what makes a potential competitor a viable entrant. It is not appropriate to say that the Chicago School got it wrong, and that the Neo-Brandeisians have it right. What is needed is a new dynamic competition-based set of rules that would refashion the assessment of competitive effects in the manner indicated here.

O8 CONCLUSION

A new science of innovation, entrepreneurship, and competition has been emerging for some time. Our knowledge of venture capital, entrepreneurship, enterprise capabilities, and innovation and complex systems is such that we are now able to look inside the firm and gain insight. It is not just about understanding platforms and network effects. We must also renovate the potential competition doctrine by creating frameworks that require and enable us to understand and assess organizational capabilities. There is now a field of organization economics, and there are also vibrant literatures on innovation and strategic management. Tapping into these literatures, integrating them, and focusing on competition will at minimum give competition policy economists and lawyers a better perspective on the *FB-Giphy* transaction and other M&A activity in the tech sector.

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