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Antitrust in Crisis: The Economic Theories Debate

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Abstract

Today, antitrust law, policy, and enforcement are in crisis. The dominant intellectual paradigms are increasingly being questioned. The world is revisiting what antitrust has come to mean and deliberating on what it must mean. For instance, countries around the world, including India, are deliberating whether to introduce an ex-ante regime to regulate digital markets from an antitrust standpoint. To make sense of the different perspectives in this debate, it is crucial for Indian policymakers, businesses, and ordinary citizens to be well-versed in the fundamental tenets of the economic theories undergirding them. This paper discusses four major schools of thought: a. Neo-classical (Chicago School); b. Neo-Brandeisian; c. Post-Chicago; and d. Complexity-minded Antitrust. It points out where and how these schools of thought converge and diverge. Lastly, the paper consciously avoids taking any position with respect to this debate.

The purpose of this paper is to make a humble contribution toward apprising Indian policymakers of the major debates in antitrust economics (and economics more generally). Those debates have a direct bearing on our competition policy and enforcement. In doing so, the paper also seeks to speak to Indian citizens, whose fates are inextricably tied to this crucial debate.

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I. Introduction

This working paper has a single purpose: to discuss the economic theories animating the various perspectives on antitrust law, policy, regulation, and enforcement—with a particular focus on the digital economy.

The debate around antitrust regulation must be situated in a larger context. Today, competition law, policy, and economics find themselves in an existential crisis.[1] The dominant intellectual paradigms are increasingly being questioned. The world is revisiting what antitrust has come to mean and deliberating on what it must mean. For instance, countries around the world, including India, are deliberating whether to introduce an ex-ante regime to regulate digital markets from an antitrust standpoint.

To make sense of these debates, policymakers and other stakeholders must necessarily be well-versed in the theoretical underpinnings of the different perspectives. As it happens, that's also the starting point for understanding debates around how legal enforcement should or should not change. For example, antitrust academia around the world is debating whether the "consumer welfare" standard (as it has come to be known around the world) must continue to govern enforcement.

Antitrust policy is—at heart—economic policy. In general, there is little else that comes with stakes as high as economic policymaking. In '*What's Wrong with Economics: A Primer for the Perplexed*,' Sir Robert Skidelsky writes that "The authority of economics derives in no small measure from its opacity[2]." The point of this paper is to demystify the debate surrounding different economic theories of competition law and policy, not just in the digital economy but more widely. More than anything else, then, this is a descriptive exercise.

What makes that debate critical is that we live in times when technocratic economic policymaking is being questioned from all sides of the ideological spectrum—whether justifiably or unjustifiably (in part or wholly).

This paper seeks to make a humble contribution toward helping our policymakers and other stakeholders make sense of what is one of the most crucial economic debates of our times. Of course, one of the most important reasons for writing this paper is that it will help the citizen to understand crucial aspects of competition policy.

A robust competition law and policy framework can play a critical role to improve India's long-term economic growth prospects. To that end, policymakers will need to build knowledge and expertise, create enforcement tools, and ensure sound enforcement. Needless to say, developments in competition law and policy scholarship can have profound insights for a developing country like India.

An in-depth understanding of the economic foundations of different perspectives regarding competition regulation is the appropriate starting point for an analysis of how regulation must adapt to the needs and demands of the present moment.

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[1] Darryl Biggar and Alberto Heimer, '*Digital Platforms and the Transaction Cost Approach to Competition Law*,' Industrial and Corporate Change (Oxford Academic) (2021) (https://academic.oup.com/icc/article-abstract/30/5/1230/6360733?redirectedFrom=fulltext).

[2] Robert Skidelsky, '*What's Wrong With Economics: A Primer for the Perplexed*,' Yale University Press (2021) (https://yalebooks.yale.edu/book/9780300257496/whats-wrong-with-economics/).

II. The Tussle of the Economic Theories

A. Chicago School (Neoclassical Economics)

The history of modern antitrust enforcement is really the history of neoclassical economics (also known as Chicago School[3] economics). The Chicago School applied price theory to antitrust.[4] Alongside academics from the University of Chicago, Donald Turner[5] and Phillip Areeda[6] of the Harvard University advanced the use of price theory and, more generally, economic analysis in antitrust. Before the Chicago School influenced antitrust—pre-1969—the basic doctrine adhered to the principle "big is bad" and "any constraints imposed upon some firms by others are suspicious and most likely represent an exercise of market power that reduces competition.[7]

After price theory, the next major Chicago School economic insight on antitrust came from Harold Demsetz. The prevailing intellectual paradigm, structure-conduct-performance, was that more market concentration would lead to higher prices and reduced output. He turned that paradigm on its head, arguing that efficient firms could increase concentration and yet lower costs and prices and also expand economic output.[8] Subsequent work by economists such as Harvey J. Goldschmidt[9] and John Sutton[10] (using game theory) confirmed that analyzing markets solely through the prism of concentration could be misleading. Later, Oliver E. Williamson[11] explained how conduct otherwise presumed to be anticompetitive could be justified when seen from the context of minimizing transaction costs.[12]

A landmark development in Chicago School antitrust was the publication of Richard Posner's *Antitrust Law: An Economic Perspective* (1976)[13], and Robert Bork's *The Antitrust Paradox*

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[3] Chicago School economics famously inspired the law and economics movement, founded by Aaron Director in the 1950s. See '*Aaron Director founded field of Law and Economics,*' The University of Chicago Chronicle (Vol. 24, No. 1) (http://chronicle.uchicago.edu/040923/obit-director.shtml). Director was influenced by the views of other prominent Chicago School academics like Milton Friedman and George Stigler.

[4] Caroline Banton, 'What Is Theory of Price? Definition In Economics and Example,' Investopedia (2023) (https://www.investopedia.com/terms/t/theory-of-price.asp).

[5] William G. Shepherd, 'Donald Turner and the Economics of Antitrust,' Sage Journals (1996) (https://journals.sagepub.com/doi/10.1177/0003603X9604100409?icid=int.sj-abstract.similar-articles.3).

[6] The Harvard Law School Library Blog, '*852 RARE: Phillip E. Areeda Papers now Open for Research,*' (https://etseq.law.harvard.edu/2010/06/852_rare_phillip_e_areeda_papers_now_open_for_research/).

[7] Dennis W. Carlton and Kenneth Heyer, 'The Revolution in Antitrust: An Assessment,' SSRN (2020) (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3661815).

[8] Harold Demsetz, '*Information and Efficiency: Another Viewpoint,*' The University of Chicago Press Journals (1969) (https://www.journals.uchicago.edu/doi/abs/10.1086/466657).

[9] Harvey J. Goldschmidt, Michael H. Mann, J. Fred Weston, and Herschel H. Man, '*Industrial Concentration: The New Learning,*' Waterstones (1974) (https://www.waterstones.com/book/industrial-concentration/harvey-j-goldschmid/michael-h-mann/9780316319416).

[10] John Sutton, '*Sunk Costs and Market Structure: Price Competition, Advertising, and the Evolution of Concentration,*' MIT Press (2007) (https://mitpress.mit.edu/9780262693585/sunk-costs-and-market-structure/).

[11] Oliver E. Williamson, '*Markets and Heirarchies: Analysis and Antitrust Implications,*' Barnes & Noble (2015) (https://www.barnesandnoble.com/w/market-and-hierarchies-analysis-and-antitrust-implications-doliver-williamson-encyclopaedia-universalis/1140886423).

[12] *Ibid.*

[13] Richard A. Posner, '*Antitrust Law: An Economic Perspective,*' The University of Chicago Law School (1976) (https://chicagounbound.uchicago.edu/books/13/).

(1978)[14]. By prioritizing "consumer welfare" as a public policy goal above all else, these academic contributions made a substantial part in shaping antitrust as it exists today.[15] And Areeda and Turner's paper on predatory pricing attempted to derive a practical judicial test from price theory.

Another important neoclassical economics-based contribution came from Frank H. Easterbrook (1984)[16]. He used decision theory to frame antitrust policy in terms of decision theory. He showed that a decisionmaker must necessarily rely on imperfect data or theory when deciding the desirability of a certain form of market conduct. His work assumed self-correcting markets.

George Stigler (1971)[17] made a pioneering contribution which sought to assess the role of regulators realistically. Far from always acting in public interest, Stigler tells us, regulators are presented with the problems of imperfect knowledge and misaligned incentives.

These contributions (and many more) have shaped antitrust thinking for decades across all jurisdictions of the world. What's more, the Chicago School, or the neoclassical school remains one of the most important paradigms for intellectual analysis in economics.

From an enforcement perspective, the Chicago School believes that market outcomes are the consequences of market forces and technical factors alone. In other words, market structure reflects prevailing market dynamics.

Staunch defenders of the Chicago School (and neoclassical economics) contend that the consumer welfare standard remains the best legal standard to tackle anticompetitive conduct and the associated antitrust harms. However, critics argue that neoclassical paradigms fail to capture market realities and lead to severe enforcement problems (see the discussion in the following pages).

Importantly, especially when it comes to the digital economy), distinguished academics at the University of Chicago take the view that the economics of digital markets is very different from traditional markets.[18]

[14] Robert Bork, '*The Antitrust Paradox*,' Blackwell's (2021) (https://blackwells.co.uk/bookshop/product/The-Antitrust-Paradox-by-Robert-H-Bork-Mike-Lee-introduction-Robert-H-Bork-foreword/9781736089705).
[15] Rather than "consumer welfare," Bork used the term total welfare.
[16] Frank H. Easterbrook, '*The Limits of Antitrust*,' *University of Chicago Law School: Chicago Unbound*'(1984) (https://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=2152&context=journal_articles;).
[17] George J. Stigler, '*The Theory of Economic Regulation*,' JSTOR (1971) (https://www.jstor.org/stable/3003160).
[18] Sai Krishna Kamepalli, Raghuram Rajan, and Luigi Zingales, '*Kill Zones*,' NBER Working Paper Series (2021) (https://www.nber.org/papers/w27146).

Main Takeaway:

Economic theory for enforcement need not change

B. Neo-Brandeisian School (Economic Structuralism)

Whereas for the Chicago School "[w]hat exists is ultimately the best guide to what should exist[19]," economic structuralism holds that how markets are structured inevitably and invariably results in firms engaging in specific forms of market behavior.[20] The movement for antitrust reform that grounds its critique of the Chicago School in economic structuralism has come to be known as the Neo-Brandeisian School.[21] How is that relevant in the context of, for example, competition regulation in the digital economy? If digital markets are structured in a way that market firms will inevitably and invariably engage in conduct that results in a certain market structure, then regulation must be pre-emptive. But if that's not true, the interplay of market forces unique to a specific digital market determines—and reflects—their specific market structure.

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[19] Lina Khan, '*Amazon's Antitrust Paradox*,' The Yale Law Journal (2017) (https://www.yalelawjournal.org/note/amazons-antitrust-paradox). For a critique of the role of neoclassical economics in antitrust policy, regulation, and enforcement, see: Sandeep Vaheesan, '*The Profound Nonsense of Consumer Welfare Antitrust*,' University of Utah (2019). (https://econ.utah.edu/antitrustconference/session_material/The%20Profound%20Nonsense%20of%20Consumer%20Welfare%20Antitrust.pdf). For a defence of the role of neoclassical economics in antitrust, see: Jorge Padilla, '*Neoclassical Competition Policy without Apology*,' Compass Lexecon (2022) (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4266176).

[20] Lina Khan, '*Amazon's Antitrust Paradox*,' The Yale Law Journal (2017) (https://www.yalelawjournal.org/note/amazons-antitrust-paradox). In this seminal paper that has come to be regarded as a classic in antitrust scholarship, Khan, presently the Chair of the Federal Trade Commission (FTC) and a professor at Columbia Law School, acknowledges that a set of new scholars at the University of Chicago have "departed from the neoclassical approach" and, in doing so, situate market competition within the broader context of market power. She cites Raghuram Rajan and Luigi Zingles's book '*Saving Capitalism from the Capitalists: Unleashing the Power of Financial Markets to Create Wealth and Spread Opportunity*,' Princeton University Press (2005) (https://press.princeton.edu/books/paperback/9780691121284/saving-capitalism-from-the-capitalists) as an illustration. Interestingly, in a radical departure from the theories and prescriptions of neoclassical economics, the Stigler Center at the University of Chicago—that Luigi Zingales heads—advocates aggressive antitrust enforcement, at least in the context of developed economies (including in the digital realm). For his views on contemporary antitrust enforcement, see: F. Lancieri E. Posner Luigi Zingales, '*The Political Economy of the Decline of Antitrust Enforcement in the United States*,' Becker Friedman Institute for Economics, University of Chicago (2022) (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4011335).

[21] See: Lina Khan, '*The Neo-Brandeis Movement: America's Antimonopoly Debate*,' Journal of European Competition Law & Practice (2018) (https://academic.oup.com/jeclap/article/9/3/131/4915966?). More generally, see: Lina Khan, '*The End of Antitrust History Revisited*,' Harvard Law Review (2020) (https://harvardlawreview.org/print/vol-133/the-end-of-antitrust-history-revisited/). Also see: Antitrust Update (November 8, 2018), '*A Brief Overview of the "New Brandeis" School of Antitrust Law*,' Patterson Belknap (https://www.pbwt.com/antitrust-update-blog/a-brief-overview-of-the-new-brandeis-school-of-antitrust-law). For a critique of the Neo-Brandeis movement, see: Christine S. Wilson, '*The Neo-Brandeisian Revolution: Unforced Errors and the Diminution of the FTC*,' Federal Trade Commission (2021) (https://www.ftc.gov/news-events/news/speeches/neo-brandeisian-revolution-unforced-errors-diminution-ftc).

As opposed to the Chicago School, the Neo-Brandeisian School argues in favor of expanding the scope of antitrust regulation and enforcement. Rather than be tunnel visioned—the accusation made against the Chicago School adherents—Neo-Brandeisians argue that regulators should pursue multiple goals with wider political-economic ramifications. Notably, some scholars argue that in framing the debate about the economic foundations of antitrust enforcement in terms of the Chicago School and the Neo-Brandeisian school is a case of a false binary.[22] That framing, the argument goes, ignores the contributions of the Harvard School to the development of antitrust law as it exists today. Both the Chicago School and the Harvard School (Turner and Arida) stood for what's the known as the "consumer welfare standard" in antitrust jurisprudence—a standard that has come to be widely accepted in jurisdictions across the world, including India. The unilateral focus on the Chicago School at the expense of the Harvard School ignores the institutional considerations basis which the Harvard School rejected a "pluralistic-goals" framework of antitrust enforcement.[23] Those considerations included concerns for administrability[24] and the limited ability of courts and agencies to enforce rules and regulations and the limited ability of business to comply with them. Even as the Chicago School and the Harvard School worry about the damage that over-enforcement of antitrust can inflict on markets, they tend to be more sanguine about underenforcement.[25] But defenders of the Neo-Brandeisian School take issue with that characterization. They readily concede that antitrust enforcement must not have a chilling effect on competition, innovation, and investment. Some of them also accept that economic analysis must play an important role in enforcement.[26] Importantly, though, some adherents do not regard traditional economic analysis as very important (in fact those adherents see it as part of the problem).

What Neo-Brandeisians want is more aggressive enforcement—with an expanded scope. And they wish to see antitrust enforcement for reasons that go beyond consumer harm. Their goals include protecting small and powerless suppliers such as small businesses, farmers, and workers.[27] They are also sceptical about the notion that the benefits of humongous size outweigh the harms as far as market competition is concerned.[28] What's more, they are

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[22] William E. Kovacic, '*The Chicago Obsession in the Interpretation of US Antitrust History*,' The University of Chicago Law Review (2020) (https://chicagounbound.uchicago.edu/uclrev/vol87/iss2/7/). For an explanation of what a false dilemma or binary means, see: '*FALSE DILEMMA*,' Logically Fallacious (https://www.logicallyfallacious.com/logicalfallacies/False-Dilemma).

[23] *Ibid.*

[24] But note that some scholars like Rory Van Loo of the Boston University do not think that administrability is that big a concern when it comes to antitrust enforcement outside the scope of the Harvard School. See: R. Van Loo, '*In Defense of Breakups: Administering A "Radical" Remedy*,' Boston University School of Law (2020) (https://scholarship.law.bu.edu/cgi/viewcontent.cgi?article=1951&context=faculty_scholarship).

[25] Statement of Federal Trade Commission Chairman William E. Kovacic, '*Modern U.S. Competition Law and the Treatment of Dominant Firms: Comments on the Department of Justice and Federal Trade Commission Proceedings Relating to Section 2 of the Sherman Act*,' Federal Trade Commission (2007) (https://www.ftc.gov/sites/default/files/attachments/press-releases/ftc-commissioners-react-department-justice-report-competition-monopoly-single-firm-conduct-under/080908section2stmtkovacic.pdf).

[26] Maurice E. Strucke and Ariel E. Ezrachi, '*The Rise, Fall, and Rebirth of the U.S. Antitrust Movement*,' Harvard Business Review (2017) (https://hbr.org/2017/12/the-rise-fall-and-rebirth-of-the-u-s-antitrust-movement).

[27] Greg Ip, '*Antitrust's New Mission: Preserving Democracy, Not Efficiency*,' The Wall Street Journal (2021) (https://www.wsj.com/articles/antitrusts-new-mission-preserving-democracy-not-efficiency-11625670424).

[28] See: Tim Wu, '*The Curse of Bigness: Antitrust in the New Guilded Age*,' Columbia Global Reports (https://globalreports.columbia.edu/books/the-curse-of-bigness/). Also see: Jennifer Szalai, 'A Look at Competition Urges Us to Think Small,' The New York Times (2018) (https://www.nytimes.com/2018/12/12/books/review-curse-of-bigness-antitrust-law-tim-wu.html). More generally, see: Yadav, J. (2020). Wu, Tim. *The Curse of Bigness: Antitrust in the New Gilded Age*. Competition Commission of India Journal on Competition Law and Policy, *1*, 165–174. (https://doi.org/10.54425/ccijoclp.v1.18).

inherently suspicious of economic concentration—because of its apparent tendency to impede market competition.

Perhaps, the Neo-Brandeisian School most closely aligns with the Cambridge School of economics. Consider what the Cambridge School has to say about regulation in general: "In their need for regulation, economic systems are no different from biological or mechanical systems; without regulation and maintenance and rules-of-the-road they invariably fail in a very short time."[29] As described elsewhere, the economic structuralism school of thought offers largely the same prescription about markets: they are organized in such a way that they inevitably and invariably result in a certain market structure: concentration.[30] If markets are not regulated in time, they will inevitably and invariably result in market failures resulting from high market concentration. For these reasons, the Neo-Brandeisians reject the consumer welfare standard.

The Cambridge School takes issue with the salience of price theory in neoclassical economics. While its proponents agree with the Chicago School on the importance of empiricism (including mathematical empiricism), they disagree on the methods that must govern intellectual analysis in economics.[31]

Notably, the Neo-Brandeisians do not limit their prescriptions to the digital economy (they obviously apply to the digital economy).

Neoclassical economists and even Post-Chicago School economists have raised what they think are serious concerns about the lack of robust foundations in Neo-Brandeisian enforcement. For example, how would that school of thought resolve trade-offs between competing objectives?[32]

[29] James K. Galbraith, '*What is economics? A policy discipline for the real world*,' real-world economics review (2021) (http://www.paecon.net/PAEReview/issue96/Galbraith96.pdf).
[30] Supra Note 20.
[31] Supra Note 30. Note that The Cambridge School acknowledges that other schools like behavioral economics and complexity economics question the universality of the neoclassical school. But it criticizes those schools for retaining the idealized models of the neoclassical school as the fundamental basis for analysis.
[32] Supra Note 1.

Main Takeaway:

Economic theory for enforcement must change to reflect economic structure of markets. Scope and goals of enforcement should be expanded. Traditional methods of economic analysis may need to be replaced.

C. Post-Chicago School (or Neo-Chicago School)

Proponents of the Post-Chicago School are in agreement with the Neo-Brandeisians to a large degree. What unites both schools of thought is their vision for strengthening antitrust laws and deploying them against market power. But while the neo-Brandeisians treat market power as a direct consequence of market concentration, the post-Chicago reformers approaches questions of market concentration and its impact on competition via neoclassical economic analysis or traditional economic analysis.[33] What unites the Chicago School and the Post-Chicago School, on the other hand, is that both camps agree that antitrust should focus exclusively on maximizing consumer welfare.[34] So both camps approve of the consumer welfare standard.[35] But while the Post-Chicago school perceives current antitrust enforcement as insufficient, the Chicago School defends the status quo as a matter of principle (as mentioned elsewhere, the Chicago School agrees that the economics of digital platforms is qualitatively different)

One cannot conclude this discussion without mentioning a critical contribution from Darryl Biggar (Australian Competition and Consumer Commission) and Alberto Heimler (Italian National School of Government) in the context of the digital economy.[36] They argue that, as a general matter, the consumer welfare standard doesn't capture competition harms adequately. In practice, enforcers don't adhere to the tenets of the consumer welfare standard.

According to Biggar and Heimler, conventionally trained economists contend that competition law and policy should seek to promote the conventional concept of total welfare or total surplus. The primary harm under this approach is the reduction in total welfare known as deadweight loss, which policy should seek to eliminate. But according to the authors, that's not how competition laws are drafted in practice. And while academics like Daniel Zimmer argue that competition law must protect trading partners from exploitation (an approach that takes into account the concerns of competition authorities), it lacks foundations in economic theory.

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[33] See: Jonathan B. Baker, '*Finding Common Ground Among Antitrust Reformers*,' Antitrust Law Journal (2022) (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4141668). According to the Post-Chicago-School antitrust rules don't deter anticompetitive conduct nearly enough—and that's why stronger rules are needed so urgently. Note that according to Baker, the Neo-Brandeisians do not utilize economic analysis for antitrust regulation and enforcement. But, importantly, Maurice E. Strucke and Ariel Ezrachi disagree with that characterization. See Maurice E. Strucke and Ariel Ezrachi, '*The Rise, Fall, and Rebirth of the U.S. Antitrust Movement*,' Harvard Business Review (2017) (https://hbr.org/2017/12/the-rise-fall-and-rebirth-of-the-u-s-antitrust-movement).

[34] Christopher Yoo, '*The Post-Chicago Antitrust Revolution: A Retrospective*,' University of Pennsylvania Carey Law School: Legal Scholarship Repository (2020) (https://scholarship.law.upenn.edu/faculty_scholarship/2237/).

[35] See: Jonathan B. Baker, '*Finding Common Ground Among Antitrust Reformers*,' Antitrust Law Journal (2022) (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4141668).

[36] Supra Note 1.

The authors propose a transaction cost approach to competition policy that focuses on the "importance of sunk investments upstream and downstream as a prerequisite for extracting the benefits of on-going economic trading relationships." It recognizes that most economic relationships require sunk investments to maximize their gains from an economic relationship. Based on welfare economics, this approach focuses on what's known as dynamic efficiencies. According to Biggar and Heimler, the transaction cost approach is particularly suited to analyze digital markets.

However, some antitrust scholars who subscribe to the Neo-Brandeisian school argue in favor of a complete departure from neoclassical economics, including the transactions-cost approach.[37]

Main Takeaway:

Economic theory for enforcement must change to take into account the concerns Neo-Brandeisians raise. Scope and goals of enforcement should be expanded. Economic methods must be utilized.

D. Complexity-Minded Antitrust

The following discussion is based on a paper titled 'Complexity-minded antitrust,' authored by Nicolas Petit and Thibault Schrepel in the Journal of Evolutionary Economics.[38] Proponents of this school of thought argue that neoclassical methods make "limitative assumptions" about the economy, constraining the application of law. That makes those methods ill-suited for economies that are increasingly complex: "there is a global increase in the number of activities and interactions between them." Digital firms, argue complexity-minded academics, challenge conventional understandings of traditional competition law because they are at the center of interdependent ecosystems. Increasing returns on supply and demand flowing from economies of scale and network effects create incentives for growth and diversification. Finally, market dynamics depend significantly on a digital firm's environment and technological resources.

Neo-Brandeisians, argue Petit and Schrepel, fail to translate their methodological observations about the massive market power of digital firms into practice. As a consequence, they err in portraying a 'big is bad' picture of digital markets. Likewise, the Neo-Chicago school errs in relying on "observations of rising output in the digital sector to draw a general inference of economic efficiency and justify a blanket *laissez-faire* approach." What's more, the Neo-Chicago school doesn't take into account how technology interacts with the knowledge economy. Factors like lock-in by historical events and path dependence are unfairly dismissed.

Complexity scholars understand competition as multilevel system—quite apart from the single-level system in the neoclassical perspective. According to them, it helps them examine the competitive and anticompetitive forces that neoclassical antitrust discards. They study a competitive system in terms of three levels: a. macro (market) (; b. meso (market); and c. micro

[37] Sanjukta Paul, '*Beyond Neoclassical Antitrust*,' Boston Review (2022) (https://www.bostonreview.net/forum_response/beyond-neoliberal-antitrust/).
[38] Nicolas Petit and Thibault Schrepel, '*Complexity-minded antitrust*,' European University Institute (2023) (https://cadmus.eui.eu/handle/1814/75453).

(firm or enterprise). That approach advocates intervention based on uncertainty rather than efficiency. As for empirical methods of analysis, scholars highlight the importance of *real-time* data documenting feedback loops.

In the context of a monopoly, a modern antitrust law, based on complexity, would ask whether the monopoly has exhausted all increasing returns to scale. In doing so, it may even permit price controls in some cases. As to the goals of antitrust, complexity promotes uncertainty. Regulators would ask whether increases in uncertainty can catalyz competitive effort and innovation. And compared to the deconcentration method of neoclassical antitrust, it advances the "unfreezing" markets methods. Finally, we will talk about remedies. In contrast to the concept of a negative feedback loop in neoclassical economics, complexity antitrust asks whether intervention can add a positive feedback loop to 'shake' markets.

Critics would argue that because this school fundamentally builds on the neoclassical models (not just in the context of antitrust), it ends up generating intricate and unpredictable patterns. And so they are either not useful or not as useful for economic analysis as their proponents tout them to be.[39]

[39] Supra Note 30.

Main Takeaway:

Economic theory for enforcement must change. Interventions should be based on uncertainty rather than solely efficiency.

III. Conclusion

Different schools of thought advance distinct visions of competition law and policy. This paper describes the four major schools.

Understanding the different economic theories that animate the different perspectives on enforcement is critical not just for policymakers but also the other stakeholders, including ordinary citizens. This debate is most pronounced in the context of digital markets but also extends to traditional markets. What's more, antitrust academia across the world is deliberating on what the goals and scope of antitrust regulation and enforcement should be.

While the Chicago School is a big tent, many adherents (with several notable exceptions) see little reason to change the economic theory behind enforcement, except in the case of digital markets. By contrast, the Neo-Brandeisians argue that enforcement must change to reflect that markets are often not "self-correcting," but rather prone to monopolization. Many adherents of the Neo-Brandeisian school call for a departure from traditional methods of economic analysis. Like the Chicago School, even the Post-Chicago School seems to be a big tent, but generally speaking, adherents agree with the Neo-Brandeisians about the need to police markets for anticompetitive conduct more aggressively. To do so, they stress the need for economic methods for market analysis. As for the complexity-minded school of antitrust, scholars argue that enforcement should keep in mind factors like uncertainty rather than efficiency.

If at all there is some consensus among all four schools of thought, it is about the nature of the digital economy. Proponents of all schools (with some exceptions, particularly in the Chicago School) seem to converge on the point that digital markets have a distinct economics. They are winner-take-all markets characterized by economies of scale and powerful network effects.[40] Some adherents in all major schools seem to agree on the need for heightened antitrust scrutiny and more expansive enforcement in digital markets.

Pertinently, different economic theories will likely advocate for different legal standards when it comes to enforcement. That debate, of course, outside the scope of this paper.

The author stresses that they have consciously avoided taking any position in this debate.

This working paper must end on a note about its future versions: they may discuss certain other less influential schools. They may also contain a more detailed conclusion.

[40] Patrick Barwise, '*Why Tech Markets are Winner-Take-All*,' London School of Economics Blog (2018) (https://blogs.lse.ac.uk/businessreview/2018/06/16/why-tech-markets-are-winner-take-all/).