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The Hidden Grace of Market Definition

Abstract. Market definition has traditionally been among the most important steps in antitrust litigation. Whether a firm has monopolized a market, or whether merger would substantially lessen competition in a market, depends critically on what the "market" in question is. Today, however, antitrust market definition is a deranged affair. Judges reach inconsistent outcomes as they attempt to juggle a confusing tangle of different approaches. Experts scoff at market definition as an old and outmoded technique, offering little help to floundering courts.

This Article reconstructs the notion of market definition from a combination of historical review and economic analysis. By decoupling the purpose of antitrust market definition from its process, the Article reveals a hidden grace to the exercise: a surprising flexibility that has allowed market definition to survive significant changes in antitrust policy without losing its connection to the doctrine. In short, changes in the process of market definition have historically worked to preserve consistency in the purpose of the exercise. This same technique may be exploited to correct problems with modern market definition practice.

The proposed approach to market definition has several concrete implications for antitrust law. First, it indicates that different processes of market definition are needed to analyze and address different concerns. Second, it suggests a basis for selecting among alternative market definition processes: the best process is the one that most clearly serves the traditional analytical purposes of the exercise. Third, it identifies concepts in antitrust practice—like safe harbors of presumptive legality—that do not reflect an appropriate understanding of market definition, and that should therefore be modified or eliminated.

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Introduction

In 1945, Learned Hand delivered his one "Supreme Court" opinion. Through a combination of the Expediting Act providing direct appeal to the Supreme Court and the recusal of at least four justices resulting in lack of a quorum, final review of the first major monopolization case brought under Section 2 of the Sherman Act fell to the Second Circuit—Chief Judge Hand in particular. In a pivotal passage of the opinion, Hand observed that whether the Aluminum Company of America (ALCOA) could be found to have monopolized the aluminum ingot market depended on what products and competitors were included in the definition of that market. "Hence," said Hand, "it is necessary to settle what [the court] shall treat as competing in the ingot market."[1] As soon as scrap metal was found to be outside the scope of the ingot market, ALCOA's fate was sealed.[2]

Much has changed since 1945, but not the importance of market definition. Details of market definition have probably decided the outcome of more antitrust inquiries than any other issue.[3] Modern examples abound. In *FTC v. Rag-Stiftung*, the Federal Trade Commission was recently denied preliminarily injunction of a merger of two hydrogen peroxide producers.[4] The district court decided the case on market definition grounds, finding insufficient evidence to assess the merger's effects in the many parochial markets it defined around individual end uses of the product.[5] In *United States v. Sabre Corporation*, the Department of Justice was similarly denied injunction of a dominant firm's acquisition of a disruptive technology firm.[6]

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[1] United States v. Aluminum Co. of Am., 148 F.2d 416, 424 (2d Cir. 1945).

[2] *See id.* at 425 ("We conclude therefore that [ALCOA's] control over the ingot market must be reckoned at over ninety per cent; that being the proportion which its production bears to imported 'virgin' ingot."). For a detailed history of this case, see Spencer Weber Waller, *The Story of Alcoa: The Enduring Questions of Market Power, Conduct, and Remedy in Monopolization Cases*, *in* ANTITRUST STORIES 121 (Eleanor M. Fox & Daniel A. Crane eds., 2007).

[3] *See* Jonathan Baker, *Market Definition: An Analytical Overview* 74 ANTITRUST L.J. 129, 129 (2007) ("Throughout the history of U.S. antitrust litigation, the outcome of more cases has surely turned on market definition than on any other substantive issue."); *see also* Eastman Kodak Co. v. Image Technical Servs., Inc., 504 U.S. 451, 469 n.15 (1992) ("[M]arket definition generally determines the result of the case."); Bathke v. Casey's Gen. Stores, Inc., 64 F.3d 340, 345 (8th Cir. 1995) ("Antitrust claims often rise or fall on the definition of the relevant market.").

[4] FTC v. RAG-Stiftung, No. CV 19-2337 (TJK), 2020 WL 532980, at *28 (D.D.C. Feb. 3, 2020).

[5] *Id.* at *19.

[6] United States v. Sabre Corp., No. CV 19-1548-LPS, 2020 WL 1855433, at *44 (D. Del. Apr. 7, 2020).

The court found for the defendants after concluding that they operated in different relevant markets.[7] And in *Mylan Pharmaceuticals v. Warner Chilcott*, summary judgement was upheld against a private plaintiff complaining of a name-brand drug manufacturer's abuse of the regulatory process to prevent generic competition.[8] The plaintiff's claim collapsed the moment that the name-brand drug, Doryx, was found to compete in the same relevant market as other oral tetracyclines for the treatment of acne.[9]

These cases show why market definition is one of the hardest fought issues in antitrust litigation.[10] By narrowing or expanding the scope of trade in which conduct is evaluated, market definition can sharpen or dull the apparent risk of anticompetitive harm. The same firm that looms over its rivals in a narrowly defined market may stand trembling among giants in a broadly defined market. At the same time, unambiguous determinations of market scope are rarely possible. Do all-electric Tesla vehicles compete in the same market as plug-in hybrids? Are Teslas in the same market as gas-powered cars? For city dwellers, do Teslas compete with bicycles and public transportation?[11] The attribution of frequently decisive significance to such subtle fact questions has long been a disquieting property of rule of reason analysis in antitrust cases.

Today, however, "disquieting" has become "despairing." True, decades of litigation have produced a sprawling body of decisional law on market definition.[12] And, true, decades of economic work have produced an elaborate framework—the Hypothetical Monopolist Test—to guide the federal antitrust agencies and many courts in market definition.[13] But

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[7] *Id.* at *34.

[8] Mylan Pharm. Inc. v. Warner Chilcott Pub. Ltd. Co., 838 F.3d 421, 441–42 (3d Cir. 2016).

[9] *Id.* at 436.

[10] *See* Robert Pitofsky, *New Definitions of Relevant Market and the Assault on Antitrust*, 90 COLUM. L. REV. 1805, 1807 (1990) ("Knowledgeable antitrust practitioners have long known that the most important single issue in most enforcement actions—because so much depends on it—is market definition.").

[11] *Cf.* Allen-Myland, Inc. v. Int'l Bus. Machines Corp., 33 F.3d 194, 206 (3d Cir. 1994) (noting that "a person needing transportation to work could accordingly buy a Ford or a Chevrolet automobile, or could elect to ride a horse or bicycle, assuming those options were feasible"); Gregory H. Shill, *Should Law Subsidize Driving?*, 95 N.Y. U. L. REV. 498 (2020) (questioning how much popular preference for cars owes to systemic legal biases).

[12] *See* David Glasner & Sean P. Sullivan, *The Logic of Market Definition*, 83 ANTITRUST L.J. § 1 (forthcoming 2020) (identifying and classifying many of the various tests of market definition devised by the Supreme Court).

[13] Promulgated in an agency guidance document, the HMT framework is not binding on any court. *See* United States v. H & R Block, Inc., 833 F. Supp. 2d 36, 52 n.10 (D.D.C. 2011). It has nonetheless been adopted as persuasive authority for market definition in many contexts.

nothing in this body of authority has rendered market definition anywhere near reliably accurate and helpful in practice. The common law has not worked itself pure on this topic.[14] On the contrary, modern market definition is messy, chaotic, and increasingly shunned.

The previous cases illustrate not just the importance of market definition, but also how badly courts are fumbling the issue. In *Mylan*, the Third Circuit's defense of a broad relevant market rested in part on a mistake known as the *Cellophane* fallacy.[15] This well-known error—for which there is no modern excuse—confuses the effects of monopoly power with the absence of that power, leading to the definition of inappropriately broad relevant markets.[16] In *Sabre*, the Delaware district court judge made repeated factual findings that the merging parties were actual and active competitors[17] before reaching the shocking conclusion that "as a matter of antitrust law" the two firms could not compete in the same market.[18] This conclusion—which rested on a single sentence taken out of context from a recent Supreme Court opinion[19]—defies both common sense and decades of authority on the factual nature of market definition.[20] And in *Rag-Stiftung*,

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See Gregory J. Werden, *The 1982 Merger Guidelines and the Ascent of the Hypothetical Monopolist Paradigm*, 71 ANTITRUST L.J. 253, 254–59 (2003) (describing widespread adoption of the HMT both domestically and internationally).

[14] *Cf.* Omychund v Barker, 26 Eng Rep 15, 23 (Ch 1744) (Mansfield, J.) (famously discussing "the common law, *that works itself pure* by rules drawn from the fountain of justice"). *But see* Frederick Schauer, *Do Cases Make Bad Law?*, 73 U. CHI. L. REV. 883 (2006) (questioning whether individualized cases are an appropriate context for law making).

[15] *Compare* Mylan Pharm. Inc. v. Warner Chilcott Pub. Ltd. Co., 838 F.3d 421, 437 (3d Cir. 2016) (emphasizing that "when Defendants increased the price of Doryx, its sales decreased and the sales of other oral tetracyclines increased") *with* United States v. E. I. du Pont de Nemours & Co. (Cellophane), 351 U.S. 377, 400 (1956) (wrongly concluding that the "(g)reat sensitivity of customers in the flexible packaging markets to price or quality changes" meant that du Pont could not possess monopoly power).

[16] *See, e.g.*, 2B PHILIP E. AREEDA, HERBERT HOVENKAMP, & JOHN L. SOLOW, ANTITRUST LAW ¶ 539 (4th ed. 2014) (explaining the *Cellophane* fallacy); RICHARD POSNER, ANTITRUST LAW 150–51 (2d ed. 2001) (same).

[17] United States v. Sabre Corp., No. CV 19-1548-LPS, 2020 WL 1855433, at *15, *33 (D. Del. Apr. 7, 2020).

[18] *Id.* at *32.

[19] *Id.* (citing as sole authority a single line of dicta in *Ohio v. American Express*: "Only other two-sided platforms can compete with a two-sided platform for transactions"). This misses the point of the cited sentence, which is explained by the following sentence of that opinion: "A credit-card company that processed transactions for merchants, but that had no cardholders willing to use its card, could not compete with Amex." Ohio v. American Express Co., 138 S. Ct. 2274, 2287 (2018). Having already found that the merging parties did in fact compete, this passage of *American Express* was simply irrelevant to the facts of *Sabre*.

[20] *See, e.g.*, Brown Shoe Co. v. United States, 370 U.S. 294, 336 (1962) ("Congress prescribed a pragmatic, factual approach to the definition of the relevant market and not a

the D.C. district court judge all but ignored the now standard Hypothetical Monopolist Test in rejecting a commodity product market for an ostensibly commoditized product.[21] Madly conflating market definition with market structure and supply-substitution inquiries, the opinion spirals down into a bewildering mess of relevant markets defined around every conceivable end use of the same standard-grade hydrogen peroxide product.[22] This sinks below error into chaos.[23]

Reeling from the havoc of these opinions, one might turn to the scholarly literature for assistance. But, here, the situation grows bleaker still. Instead of striving to correct and clarify market definition practice, recent scholarship opts to attack the exercise. Louis Kaplow is perhaps the most ardent opponent of market definition, having argued over the course of several years that market definition should be excised from every aspect of antitrust law.[24] But others in the literature are not far behind. In the merger context, market definition is increasingly derided as "crude," "clumsy," and "arbitrary;" a tool be used sparingly, if it must be used at all.[25]

At the intersection of deranged caselaw and dismissive scholarship, antitrust market definition has become something of a madhouse. Experts portend the demise of the exercise[26] even as market definition continues to decide cases, as market definition continues to be "a necessary predicate to a finding of a violation"[27] in many contexts, and as failure to plead plausible

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formal, legalistic one."); Columbia Metal Culvert Co. v. Kaiser Aluminum & Chem. Corp., 579 F.2d 20, 28 (3d Cir. 1978) ("[A] pronouncement as to market definition is not one of law, but of fact."); Todd v. Exxon Corp., 275 F.3d 191, 199 (2d Cir. 2001) (Sotomayor, J.) (explaining that "market definition is a deeply fact-intensive inquiry").

[21] *Cf.* FTC v. RAG-Stiftung, No. CV 19-2337 (TJK), 2020 WL 532980, at *12 (D.D.C. Feb. 3, 2020) (observing that standard grade hydrogen peroxide "is often referred to as a 'commodity' . . . that can be used interchangeably among suppliers with ease").

[22] *Id.* at *14.

[23] This language borrows from another moment of market definition exasperation. Morris A. Adelman, *The Antimerger Act, 1950-60*, 51 AM. ECON. REV. 236, 237 (1961).

[24] *See* Louis Kaplow, *Why (Ever) Define Markets?*, 124 HARV. L. REV. 437 (2010) [hereinafter Kaplow, *Why Ever*]; Louis Kaplow, *Market Definition and the Merger Guidelines*, 39 REV. IND. ORGAN. 107 (2011); Louis Kaplow, *Market Definition Alchemy*, 57 ANTITRUST BULL. 915 (2012); Louis Kaplow, *Market Definition: Impossible and Counter-Productive*, 79 ANTITRUST L.J. 361 (2013) [hereinafter Kaplow, *Impossible*].

[25] *See infra* notes 123–131 (collecting recent critiques of market definition).

[26] *E.g.*, Daniel A. Crane, *Market Power Without Market Definition*, 90 NOTRE DAME L. REV. 31, 33 (2014) ("[T]he handwriting is on the wall for market definition."); *supra* note 24 and sources cited therein.

[27] United States v. E. I. du Pont de Nemours & Co. (*du Pont-General Motors*), 353 U.S. 586, 593 (1957). This particular quote pertains to violations of Section 7 of the Clayton Act, but the idea generalizes. *See, e.g.*, Walker Process Equip., Inc. v. Food Mach. & Chem. Corp.,

relevant markets continues to be a potential basis for dismissal.[28] Other commentators defend the status quo,[29] even as opinion after opinion shows just how sick and unreliable the status quo has become.[30] The Supreme Court's recent opinion in *Ohio v. American Express* poetically captures the unfolding crisis.[31] After opining that "courts usually cannot properly apply the rule of reason without an accurate definition of the relevant market,"[32] the majority opinion in *American Express* fumbled its application of rule of reason analysis.[33] Incredibly, the Court's error traces to its own inaccurate definition of the relevant market.[34]

This Article take on the market definition madhouse, aiming to clarify and rationalize the exercise through a simple but forcible correction. Much of the confusion surrounding market definition traces to a false belief that the process of defining markets is the same in every setting.[35] This leads judges to reach for inapposite tests, just as it leads commentators to criticize market definition as crude or clumsy when in reality their objection is that a market definition process designed for one particular application fails to fit another application. The message of this Article is that rational, helpful market defemination processes vary by context to match the specifics of each inquiry. This is not just a normative statement. It is a description of how market definition has actually evolved over time.

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382 U.S. 172, 177 (1965) ("Without [market definition] there is no way to measure [an attempted monopolist's] ability to lessen or destroy competition.").

[28] *E.g.*, City of New York v. Grp. Health Inc., 649 F.3d 151, 155 (2d Cir. 2011) ("To state a claim under § 7 of the Clayton Act, §§ 1 or 2 of the Sherman Act, . . . a plaintiff must allege a plausible relevant market in which competition will be impaired."); Newcal Indus., Inc. v. Ikon Office Sol., 513 F.3d 1038, 1044 (9th Cir. 2008) ("[T]o state a valid claim under the Sherman Act, a plaintiff must allege . . . both that a 'relevant market' exists and that the defendant has power within that market.).

[29] *See, e.g.*, James A. Keyte & Kenneth B. Schwartz, *"Tally-Ho!": UPP and the 2010 Horizontal Merger Guidelines*, 77 ANTITRUST L.J. 587, 600-13 (2011) (criticizing departures from older methods of market definition).

[30] *See, e.g.*, *supra* notes 4–9, 15–23 and accompanying text.

[31] Ohio v. Am. Express Co., 138 S. Ct. 2274 (2018).

[32] *Id.* at 2285.

[33] *See generally* Herbert Hovenkamp, *Platforms and The Rule of Reason: The* American Express *Case*, 2019 COLUM. BUS. L. REV. 35 (2019) (sharply criticizing the opinion); John B. Kirkwood, *Antitrust and Two-Sided Platforms: The Failure of American Express*, 41 CARDOZO L. REV. 1805 (2020) (same).

[34] *See* Hovenkamp, *supra* note 33, at 57-65; Kirkwood, *supra* note 33, at 1837-1846.

[35] This belief has long endured in antitrust. *See* United States v. E. I. du Pont de Nemours & Co. (*Cellophane*), 351 U.S. 377, 404 (1956) (commenting that while "[t]he 'market' which one must study . . . will vary with the part of commerce under consideration[,] [t]he tests [of market definition] are constant").

Courts have been defining markets in antitrust cases since at least 1945. Market definition long predated modern industrial organization economics and the ascent of the consumer welfare standard in antitrust.[36] One could say that market definition survived these developments. But the truth is that the market definition of today is not the market definition of the 1960s. Nor was the market definition of the 1960s the related concept of earlier times. Throughout history, the process of defining markets has evolved to keep pace with the changing goals and focuses of antitrust law.

Why, then, do courts and commentators describe market definition as if it were the same in every application?[37] The answer seems to lie in a subtle conflation of the *process* of market definition, which has changed over time, with the *purpose* of market definition, which has stayed basically the same. Indeed, past changes in the process of market definition have actually been necessary to maintain consistency in its purpose.

The thesis of this Article is that hidden within this initially confounding flexibility of process and consistency of purpose is a graceful framework for defining markets in antitrust analysis. This proposed framework clarifies the role market definition plays in antitrust and reveals a smooth path to correcting many of the biggest problems that beset market definition today. The argument proceeds as follows.

Part I of this Article undertakes a brief survey of market definition to show how the process has changed over time. Comparing market definition practice and commentary during the populist era of the 1960s, the Chicago-school era of the 1980s, and the post-Chicago era of the 2000s surfaces a tendency for changes in antitrust policy and focus to motivate criticism of existing market definition methods as flawed and uneconomic. It also reveals how the exercise has adapted to fit new regimes. The key observation is that not all market definition processes are the same.

Part II shows that, despite historic changes in the process of defining markets, there has always remained a consistent underlying purpose to the exercise. A synthesis of existing market definition processes reveals that

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[36] *See* Glasner & Sullivan, *supra* note 12, §§ I.A–I.C (chronicling the development of market concepts in antitrust and industrial organization economics); William E. Kovacic & Carl Shapiro, *Antitrust Policy: A Century of Economic and Legal Thinking*, 14 J. ECON. PERSP. 43 (2000) (chronicling the convergence of legal and economic analysis in antitrust).

[37] *See, e.g.*, Christine S. Wilson, The Unintended Consequences of Narrower Product Markets and the Overly Leveraged Nature of Philadelphia National Bank, Remarks as Prepared for Delivery at The Antitrust Enforcement Symposium 2019, 6 (June 30, 2019), https://www.ftc.gov/public-statements/2019/06/unintended-consequences-narrower-product-markets-overly-leveraged-nature (commenting that despite a trend toward defining narrower markets, "the basic legal rule for defining relevant product markets has not changed in almost 70 years").

every significant market definition process is concerned with (1) identifying a scope of trade in which a given type of anticompetitive injury could occur, (2) connecting the structure of competition in this scope of trade to the plausibility of that injury, and (3) contextualizing further analysis of the potential injury. The lesson of this discussion is that flexibility in the process of market definition should be not only accepted but exploited to help the exercise serve consistent analytical purposes in every setting.

Part III applies these lessons to the case of unilateral effects arising from mergers of competitors in differentiated product spaces—the posterchild of contexts in which the literature denies a role for market definition. While it is certainly true that historic market definition processes are not usually helpful in this setting, this is not because modern economic "alternatives" to market definition obviate the exercise in this context. On the contrary, these alternatives to market definition actually *are* market definition—albeit, a process of market definition evolved to suit one specific antitrust injury. This is not a simple or semantic argument. Beyond showing that the alternatives serve same purposes as other market definition processes, this Part explains how they rely on the same information and provide the same type of results as other modern market definition processes. The important point is that refusing to recognize these processes as market definition confuses antitrust practice and stunts potential policy growth.

Part IV summarizes the concrete, practical implications that the proposed approach to market definition holds for antitrust policy. The proposed understanding of market definition exposes the unsound basis of recent claims that market structure is only weakly related to market power inferences. It also exposes conceptual flaws in efforts to use market definition and market structure thresholds as a way of screening out benign conduct or identifying "safe harbors" of presumptive legality in antitrust.

A brief conclusion recaps the argument. Done right, market definition not only escapes the type of errors discussed above, but actually elevates antitrust law. The remainder of this Article shows how.

I. How Market Definition Has Changed over Time

There is a tendency in antitrust opinions, if not scholarship, to act as thought the policy goals of antitrust have stayed more or less the same over time.[38] They have not, and to pretend otherwise blinds the law to important

[38] *E.g.*, Verizon Commc'ns Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398, 408-10 (2004) (relegating to the status of narrow "exception" all opinions contrary to the "long recognized right" of a firm to refuse to deal with its competitors); Brooke Grp. Ltd. v. Brown & Williamson Tobacco Corp., 509 U.S. 209, 221 (1993) (sprinting past competitor-

lessons. Case in point, changes in antitrust goals and focuses have led to unappreciated changes in the way that market definition is conducted over time. The following highlights these changes by contrasting market definition at three snapshots in antitrust history: (1) the populist era of the 1960s, (2) the Chicago-school era of the 1980s, and (3) the post-Chicago era of the 2000s. While this Article addresses all applications of market definition, discussion focuses particularly on merger practice, where market definition has received the most attention and is most developed.

A. The Populist Era of the 1960s

In histories of antitrust law, the 1960s stand out as unique period of activism and intervention. The policy goals that motivated antitrust during this era were far from the laser-like focus of the modern consumer welfare standard. Indeed, one important difference from modern antitrust is just how many policy goals held sway at this time.

The now-familiar goal of economic efficiency made the list. One of the pillars of 1960s antitrust was a strong form of "structuralism:" the belief that concentrated industries perform less effectively than unconcentrated industries.[39] Where opinions of the 1960s exhibited concern about market concentration, there was at least a perceived connection between this concern and the goal of economic efficiency.[40]

But various populist objectives were also pillars of 1960s antitrust—and often crowded efficiency concerns out of center stage. The Warren Court's antitrust jurisprudence encompassed, among other things, the ideas that antitrust could be used to address income disparities and to protect and equalize opportunities for workers and entrepreneurs.[41] It also encompassed

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protecting exceptions to "antitrust laws' traditional concern for consumer welfare and price competition"); *cf.* Robert H. Bork, *Legislative Intent and the Policy of the Sherman Act*, 9 J.L. & ECON. 7 (1966) (deriving a "consumer welfare" standard from creative interpretation of the legislative history of the Sherman Act); ROBERT H. BORK, THE ANTITRUST PARADOX: A POLICY AT WAR WITH ITSELF ch. 1–2 (1978) (similar).

[39] *See* Donald I. Baker & William Blumenthal, *The 1982 Guidelines and Preexisting Law*, 71 CALIF. L. REV. 311, 315 (1983) ("[M]erger policy during the 1960's tended to flow from a simple equation: increases in concentration lead to less efficient performance."); Herbert Hovenkamp, *Markets in Merger Analysis*, 50 ANTITRUST BULL. 887, 889 (2012) (observing that "highly influential in the economic literature of the 1960s, was structuralism, which found a close link between eco-nomic performance and market structure").

[40] *See, e.g.*, United States v. Philadelphia Nat. Bank, 374 U.S. 321, 363 (1963) (relating market structure tests in merger enforcement to economic scholarship of the time).

[41] *See* Arthur D. Austin, *The Emergence of Societal Antitrust*, 47 N.Y.U. L. REV. 903, 904–05 (1972) (discussing the Warren Court's "societal antitrust" as exalting "to a first priority status" such goals as "a fairer distribution of income, racial equality and a host of other

the populist goal of protecting small, local businesses against competition from larger, more efficient rivals.

In its pivotal *Brown Shoe* opinion, the Supreme Court actually placed protectionism above efficiency concerns. In amending Section 7 of the Clayton Act, the Court said, "Congress was desirous of preventing the formation of further oligopolies" because of "their attendant adverse effects upon local control of industry and upon small business."[42] The opinion candidly acknowledged the conflict between this objective and the erstwhile goals of promoting economic efficiency and low prices for consumers. But where "occasional higher costs and prices might result" from the protection of small business, the Court read Congress to have "resolved these competing considerations in favor of decentralization."[43]

More could be said about the policy goals of 1960s antitrust, but for present purposes this thumbnail sketch suffices to make the important points. With its peculiar mix of structuralism and populist objectives,[44] 1960s antitrust was quite different from modern antitrust policy. This was an antitrust regime in which small increases in market share could raise competition concerns.[45] It was a regime in which efficiency advantages were a problem to be avoided.[46] It was a regime in which price cutting to attract consumers could be labeled anticompetitive.[47] And it was the regime in which much of the current law of market definition developed.

Prior to 1950, there was little explicit discussion of market definition in antitrust opinions. To the extent that markets were being defined implicitly, questions of scope seem to have followed physical distinctions in products.[48] In the mid 1950s, several opinions attempted to define markets by reference

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similar socio-political objectives"); Joel B. Dirlam & Irwin M. Stelzer, *The Du Pont-General Motors Decision: In the Antitrust Grain*, 58 COLUM. L. REV. 24, 25 (1958) (discussing the fairness norms and social purposes understood to be addressed by the Sherman Act).

[42] Brown Shoe Co. v. United States, 370 U.S. 294, 333 (1962).

[43] *Id.* at 344.

[44] Thomas E. Kauper, *The Warren Court and the Antitrust Laws: of Economics, Populism, and Cynicism*, 67 MICH. L. REV. 325, 329 (1968) (similarly discussing the "peculiar blend" of economic theory and populism that motivated antitrust decisions of this era).

[45] *E.g.*, United States v. Von's Grocery Co., 384 U.S. 270, 272 (1966) (breaking up a merger that produced a firm with a total market share of about 7.5 percent).

[46] *See, e.g.*, Hovenkamp, *supra* note 39 at 895 ("The perceived injury in *Brown Shoe* was . . . [that] Brown Shoe would acquire a competitive advantage over its competitors.").

[47] *E.g.*, Utah Pie Co. v. Cont'l Baking Co., 386 U.S. 685, 690-98 (1967) (describing price cutting that lead to a "deteriorating price structure" as a "lessening of competition").

[48] *See* Guy B. Maseritz, *The Relevant Market - A Case Study of the DuPont-General Motors Decision*, 6 ANTITRUST BULL. 487, 489 (1961) ("Initially, the courts distinguished products by their physical characteristics. The market analysis was based on the assumption that only physically similar products could be associated with the same market.").

to more economically sound ideas about the substitutability of products or their cross-elasticities of demand.[49] The tests were superficial, providing no indication how much substitutability was required to define a market[50] and often seemingly invoked as little more than window dressing for markets actually defined by physical distinctions or trade language.[51] By the late 1950s, the Supreme Court was showing interest in a strategy that focused less on abstract substitutability and more on observational discovery of recognizable industry boundaries and trade lines.[52]

Brown Shoe—the same opinion that elevated the protection of small businesses above the promotion of economic efficiency—struck this path decisively. Beyond introducing the modern terminology of relevant markets composed of relevant product markets and relevant geographic markets,[53] the opinion espoused a test for defining "submarkets" which is still cited as primary authority for market definition in merger cases today.[54] The test defines relevant markets by reference to various sources of observational evidence, or "practical indicia," of product and industry boundaries:

> [Market boundaries] may be determined by examining such practical indicia as industry or public recognition of the submarket as a separate economic entity, the product's peculiar characteristics and uses, unique production facilities,

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[49] *E.g.*, United States v. E. I. du Pont de Nemours & Co. (Cellophane), 351 U.S. 377, 380–81 (1956) (articulating a test based on "reasonable interchangeability by consumers"); Times-Picayune Pub. Co. v. United States, 345 U.S. 594, 612 n.31 (1953) (articulating a test based on "cross-elasticities of demand").

[50] Glasner & Sullivan, *supra* note 12, at 14 ("[N]either [test] even attempts to articulate where the cutoff lies. How small must be the cross-elasticity of demand, and how poor must be the interchangeability of use, before the edge of a relevant market has been reached?").

[51] *Id.* at 13–14 (discussing the reliance of these opinions on such evidence as physical product characteristics and popular recognition of distinct lines of industry).

[52] *See* Gregory J. Werden, *The History of Antitrust Market Delineation*, 76 MARQ. L. REV. 123, 143 (1992) (interpreting the Court's 1957 opinion in *du Pont-General Motors* as marking "a significant shift in ideology on the Court, which was to prove decisive over the remainder of Chief Justice Warren's tenure").

[53] Previous Supreme Court cases had used the language of "relevant markets." *See, e.g.*, United States v. Columbia Steel Co., 334 U.S. 495, 508 (1948). *Brown Shoe* adopted the decomposition of the relevant market into a "relevant product market" and "relevant geographic market" and connected these concepts to statutory hooks in the Clayton Act. Brown Shoe Co. v. United States, 370 U.S. 294, 324 (1962).

[54] *E.g.*, United States v. Aetna Inc., 240 F. Supp. 3d 1, 21 (D.D.C. 2017) ("In [defining markets], the Court has a number of analytical tools at its disposal. The first is provided by the Supreme Court's decision in *Brown Shoe*. There, the Court explained that the boundaries of a product market 'may be determined by examining such practical indicia as . . . .'").

> distinct customers, distinct prices, sensitivity to price changes, and specialized vendors.[55]

Brown Shoe similarly delineated geographic boundaries by observational discovery and reference to the "commercial realities of the industry."[56]

The approach struck a chord. To this day, *Brown Shoe* remains the last significant discussion of market definition in a Supreme Court opinion. The practical indicia test dominated market definition in merger cases well into the 1970s,[57] diffusing into the analysis of non-merger conduct cases as well.[58] Without mentioning the practical indicia by name, the Department of Justice's 1968 Merger Guidelines adopted a similar approach. This document, persuasive but not binding on courts, explained that the DOJ defined relevant product markets as "[t]he sales of any product or service which is distinguishable as a matter of commercial practice from other products or services."[59]

From a modern perspective, the practical indicia approach is hard to love. Few of the indicia have any serious connection to market power or constraints on the exercise of that power.[60] Over the intervening decades, creative judges and scholars have reinterpreted some of these factors as

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[55] *Brown Shoe*, 370 U.S. at 325.

[56] *Id.* at 336.

[57] Werden, *supra* note 52, at 172 ("In the two decades following the Supreme Court's decision in *Brown Shoe Co. v. United States*, the submarket concept and the practical indicia dominated thinking on market delineation in the lower courts.").

[58] *See, e.g.*, United States v. Grinnell Corp., 384 U.S. 563, 572 (1966) ("In s 2 cases under the Sherman Act . . . there may be submarkets that are separate economic entities."); Columbia Metal Culvert Co. v. Kaiser Aluminum & Chem. Corp., 579 F.2d 20, 26–27 (3d Cir. 1978) ("[U]nder either s 1 or s 2 of the Sherman Act, judges . . . are adjured to follow the well-trodden trail illuminated by [*Brown Shoe*'s test of market definition]."); In re IBM Peripheral EDP Devices Antitrust Litig., 481 F. Supp. 965, 983 (N.D. Cal. 1979), *aff'd sub nom.* Transamerica Computer Co. v. Int'l Bus. Machines Corp., 698 F.2d 1377 (9th Cir. 1983) ("In any event, the Brown Shoe submarket indicia can provide valuable clues as to whether plug-compatible tapes and control units and plug-compatible disks and control units are sufficiently distinct that they could be monopolized.").

[59] U.S. DEP'T OF JUSTICE, MERGER GUIDELINES § 3(i) (1968).

[60] *See, e.g.*, Baker, *supra* note 3, at 149 (commenting that not all of the practical indicia are related to "identification of buyer and seller substitution patterns" and noting "confusion and error" where the practical indicia have not focused on these concerns); Pitofsky, *supra* note 10, at 1815 (describing the distinct customers factor as "problematic" and the industry or the public recognition factor as "decidedly marginal on the question of market definition"); Werden, *supra* note 52 at 172–79 (sharply criticizing the market power significance of many of the practical indicia).

rough proxies for market power considerations.[61] But this anachronism masks the point of the practical indicia test, which was never about market power in the first place.[62] Indeed, applications of market definition in the 1960s rarely made even the faintest efforts to connect market definition to market power.[63] This was not the concern of the time.

Market definition, in the populist regime of the 1960s, was instead a method of scoping potential harm to competitors and excess concentration in industries. "Industry" as the term is used by anyone other than modern antitrust practitioners, has less to do with competitive closeness than it does with similarity of production technology and conventional classification of trade lines.[64] To the extent that the motivating goals of 1960s antitrust included the protection of small competitors and the prevention of excess concentration in "industries" as popularly conceived, the practical indicia test was a sensible way of identifying a scope of competition in which the relevant harms could arise.[65] Indeed, it is difficult to envision a better process of defining relevant markets for this purpose.

The market definition tests of the 1960s were thus a satisfactory process for the antitrust objectives of the time. They had their detractors—

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[61] *See, e.g.*, Rothery Storage & Van Co. v. Atlas Van Lines, Inc., 792 F.2d 210, 218–19 (D.C. Cir. 1986) (Bork, C.J.) (reinterpreting the Court's practical indicia as "evidentiary proxies for direct proof of substitutability"); Jonathan Baker, *Stepping Out In An Old Brown Shoe: In Qualified Praise of Submarkets*, 68 ANTITRUST L.J. 203, 205 (2000) ("Some of the seven practical indicia appear related to the identification of buyer substitution patterns, the concern of market definition under the Merger Guidelines.").

[62] Glasner & Sullivan, *supra* note 12, at 11 ("[These tests] were never meant to fit the focus of modern antitrust analysis."); Hovenkamp, *supra* note 39, at 896–97 ("[T]he rationale for market definition in *Brown Shoe* was very different from, and is fundamentally at odds with, the rationale for market definition . . . today.").

[63] *See* Werden, *supra* note 52, at 186 (noting the rarity of connecting market definition to market power from the mid 1950s to the mid 1970s). Where the language of "market power" was used, it appears often to deviate from its modern meaning. *See, e.g.*, Brown Shoe Co. v. United States, 370 U.S. 294, 322 n.38 (1962) (using the term "market power" only one time, in a footnote, and without any obvious connection to its modern meaning).

[64] *See* 2B AREEDA, HOVENKAMP, & SOLOW, *supra* note 16, ¶530a, at 235 n.5 (noting that, outside of modern antitrust, the idea of a "market" often encompasses collections of non-competing products, such as the products sold at a farmers' market, a retailing market, or a market defined by a "category of manufacture" such as the "motors and generators" market); Hovenkamp, *supra* note 39, at 891 (commenting that the term "line of commerce" describes, "in commercial law and other settings . . . a set of products that a layperson might regard as in the same 'line,' such as clothing or groceries.").

[65] *Cf.* Lawrence A. Sullivan, *The New Merger Guidelines: An Afterword*, 71 CALIF. L. REV. 632, 639 (1983) ("If one . . . were convinced that Congress wanted to maintain markets of many small firms, regardless of effects on costs and prices[,] then one might justify the use of market definition and concentration ratios as primary legal categories." (footnotes omitted)).

economists chief among them.[66] But as long as antitrust remained focused on industry-level structuralism and populist measures like the promotion of small business and local control, these market definition processes served a useful role.[67] The only thing that would unseat their connection to antitrust would be regime change.

B. The Chicago-School Era of the 1980s

In a 1983 symposium on recent revisions to the Merger Guidelines, Lawrence Sullivan summarized the views of commentators with a blunt prognosis: "Antitrust is being cut to a new pattern."[68] The populist agenda of the 1960s had begun to unravel by the middle of the 1970s. As Donald Baker and William Blumenthal tellingly observed, "the Supreme Court last sounded the key populist phrases, … retention of 'local control' and 'protection of small businesses,' … in 1974 in a dissenting opinion."[69] The growing power of the Chicago-School approach to antitrust—epitomized by Robert Bork's influential scholarship—joined the 1980 election of Ronald Reagan to herald sweeping regime change in antitrust.[70]

Championed by reformers in both the academy and Department of Justice,[71] the new regime flatly rejected the populist goals of the 1960s. All objectives other than economic efficiency were set aside as issues to be addressed elsewhere in law and government.[72] But the changes were not merely rejections of previous ideas; 1980s antitrust introduced new policy goals and new enforcement focuses as well. Both of these pivots were

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[66] *E.g.*, George J. Stigler, et al., *Report of the Task Force on Productivity and Competition*, 2 ANTITRUST L. & ECON. REV. 13, 27 (1969) (criticizing market definition in the 1986 Merger Guidelines as "so loose and unprofessional as to be positively embarrassing").

[67] *Cf.* Kauper, *supra* note 44, at 339 ("On the whole, given the complexity of market definition and the lack of adequate expert guidance furnished to the Court, it has handled the process as well as can be expected.").

[68] Sullivan, *supra* note 65, at 632.

[69] Baker & Blumenthal, *supra* note 39, at 320 n.41 (referring to Gulf Oil Corp. v. Copp Paving Co., 419 U.S. 186, 207 (1974) (Douglas, J., dissenting)).

[70] *See* William F. Baxter, *Responding to the Reaction: The Draftsman's View*, 71 CALIF. L. REV. 618, 618 (1983) (characterizing an existing "trend in antitrust jurisprudence toward a focus on economic efficiency and consumer welfare").

[71] *See* Phillip Areeda, *Justice's Merger Guidelines: The General Theory*, 71 CALIF. L. REV. 303, 307 (1983) (commenting that "[Department of Justice] officials have given every indication of a mission to improve and rectify antitrust law, a mission pursued through public statement, amicus briefs, and the Guidelines").

[72] Frank H. Easterbrook, *Workable Antitrust Policy*, 84 MICH. L. REV. 1696, 1703–04 (1986) (describing antitrust goals "other than efficiency (or its close proxy consumers' welfare)" as political questions of income redistribution without "any semblance of 'legal' criteria" upon which judges decide cases).

apparent in 1982, when the DOJ revised its merger guidelines for the first time since their initial publication in 1968.[73]

As far as policy was concerned, the objectives of antitrust were sharply narrowed. Scholarship of the time described the 1982 Merger Guidelines as making economic efficiency the sole objective of antitrust enforcement.[74] By the mid-1980s, lower courts were extending this interpretation to all of antitrust law.[75] The truth was only a little messier. The "consumer welfare standard" of the 1980s was then, and is now, a schizophrenic concept, sometimes the same as economic efficiency, sometimes not.[76] More accurate and more telling is to say that 1980s antitrust required all light to pass through the lens of market power.[77] Conduct without market power consequences was simply invisible to this regime.[78]

As for focus, the gaze of 1980s antitrust fell upon certain ways in which market power might be acquired. The primary injury contemplated by the 1982 Merger Guidelines was that a merger of competing firms might facilitate coordinated conduct among remaining competitors.[79] A Seventh

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[73] U.S. DEP'T OF JUSTICE, MERGER GUIDELINES (June 14, 1982) [hereinafter 1982 MERGER GUIDELINES].

[74] *See* Baker & Blumenthal, supra note 39, at 317 ("Where economic, social, and political considerations once received more or less equal billing as the basis for merger policy, economic considerations have now achieved primacy." (footnote omitted)); Robert G. Harris & Thomas M. Jorde, *Market Definition in the Merger Guidelines: Implications for Antitrust Enforcement*, 71 CALIF. L. REV. 464, 465 (1983) ("[T]he thrust of the Merger Guidelines is that economic efficiency is the *only* factor relevant to the enforcement of antitrust laws."); Sullivan, *supra* note 65, at 634 ("[E]fficiency is now the only enforcement goal.").

[75] *E.g.*, Morrison v. Murray Biscuit Co., 797 F.2d 1430, 1437 (7th Cir. 1986) ("The purpose of antitrust law, at least as articulated in the modern cases, is to protect the competitive process as a means of promoting economic efficiency."); Westman Comm'n Co. v. Hobart Int'l, Inc., 796 F.2d 1216, 1220 (10th Cir. 1986) ("We adhere to the view that the antitrust laws should not restrict the autonomy of independent businessmen when their activities have no adverse impact on the price, quality, and quantity of goods and services offered to the consumer.").

[76] *See* Sean P. Sullivan, *Antitrust Amorphisms*, ANTITRUST CHRON., November 2019, at 1, 5-6; *see generally* Steven C. Salop, *Question: What Is the Real and Proper Antitrust Welfare Standard? Answer: The True Consumer Welfare Standard*, 22 LOY. CONSUMER L. REV. 336 (2010) (discussing various possible antitrust standards); Sean P. Sullivan, *Lumps in Antitrust Law*, U. CHI. L. REV. ONLINE § II (Mar. 30, 2020), https://lawreviewblog.uchicago.edu/2020/03/30/lumps-in-antitrust-law-by-sean-p-sullivan/ (same).

[77] *See, e.g.*, 1982 MERGER GUIDELINES, *supra* note 73, § I ¶ 3 ("The unifying theme of the Guidelines is that mergers should not be permitted to create or enhance 'market power' or to facilitate its exercise.")

[78] *See* Herbert Hovenkamp, *Antitrust Policy after Chicago*, 84 MICH. L. REV. 213, 215 (1985) (observing that relevance, in antitrust, is determined by both policy and models).

[79] *See* Baker & Blumenthal, *supra* note 39, at 315 ("From among the many conceivable economically based enforcement theories, the Department has plucked one of comparatively

Circuit opinion by Richard Posner crisply summarizes this view: "When an economic approach is taken in a [merger] case, the ultimate issue is whether the challenged acquisition is likely to facilitate collusion."[80]

Merger enforcement implemented this pivot by repurposing market concentration as a measure of market power. Concentration remained an important consideration, but no longer reflected an abstract preference for deconcentrated industry; the concern was now that concentration might facilitate coordinated exercises of market power.[81] The sole exception to this single-minded focus on coordination was a lonely paragraph in the 1982 Guidelines on the "leading firm proviso:"[82] the idea that a merger might "create or enhance the market power of a single dominant firm."[83] For now, it suffices to note that here, too, concern with market concentration flowed only from its potential to enhance market power.

Along with regime change came market definition discontent. Existing market definition processes were criticized by economists like Janusz Ordover and Robert Willig as "an inadequate substitute for, and a diversion from, sound direct assessment of a merger's effects."[84] Joseph Stigler called market definition analysis "an almost impudent exercise in economic gerrymandering."[85] Baker and Blumenthal complained that "case law offers neither sensible counsel nor a coherent pattern as to the necessary interchangeability within a well-defined market," and castigated 1960s market definition as "ad hoc evidentiary selection, hand-waving, or result

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narrow (but hardly unanticipated) focus: mergers must not be permitted to enhance substantially the risk of tacit collusion."); *id.* ("[T]he principal risk associated with a merger is that it might better enable firms in the industry to conspire tacitly to increase prices and restrain production."); Pitofsky, *supra* note 10, at 1807 ("Merger enforcement . . . proceeds from the premise that when a small group of firms occupies a large share of the relevant market, they can more easily collude or coordinate sales policies in order to raise prices above competitive levels.").

[80] Hosp. Corp. of Am. v. F.T.C., 807 F.2d 1381, 1386 (7th Cir. 1986) (Posner, J.).

[81] *Id.* at 1386 ("[T]he economic concept of competition, rather than any desire to preserve rivals as such, is the lodestar that shall guide the contemporary application of the antitrust laws . . . ."); Baker & Blumenthal, supra note 39, at 316 ("Unlike the 1960's cases, however, the Guidelines view concentration as mattering not for its own sake, but because it increases the likelihood of collusion."); Janusz A. Ordover & Robert D. Willig, *The 1982 Department of Justice Merger Guidelines: An Economic Assessment*, 71 CALIF. L. REV. 535, 555 (1983) ("The view that a reduction in the number of firms facilitates coordinated use of assets among the incumbent firms is a rock upon which much of industrial economics has been built.").

[82] 1982 MERGER GUIDELINES, *supra* note 73, § III.A.2.

[83] *Id.*

[84] Ordover & Willig, *supra* note 81, at 536.

[85] George J. Stigler, *The Economists and the Problem of Monopoly*, 72 AM. ECON. REV., May 1982, at 1, 8 (1982).

orientation."[86] These sentiments aptly reflect the broad disdain that had emerged for existing processes of market definition.[87] The root problem was that these processes had nothing to do with the new and singular focus of antitrust on market power.

The 1982 Merger Guidelines addressed this deficiency with a new process for defining markets.[88] The Hypothetical Monopolist Test (HMT) sought to delineate markets not by observationally discovering industry boundaries, but by analytically identifying a scope of trade in which joint market power could be exercised. The precise algorithm of the HMT was and is rather involved.[89] In rough terms, it starts by hypothesizing a small provisional market and asking whether the firms in that market would, if joined together as a monopolist not constrained by price regulation or the entry of new firms, choose to increase price by a small but substantial

[86] Baker & Blumenthal, *supra* note 39, at 324.

[87] *See, e.g.*, *id.* at 312 ("Most economists today regard the . . . the market analyses of [the Warren Court] era as inept."); Barry C. Harris & Joseph J. Simons, *Focusing Market Definition: How Much Substitution Is Necessary*, 12 RES. IN L. & ECON. 207, 208 (1989) at 208 (commenting that rather than trying to specify how interchangeability delineates a market "[t]he Court has instead turned to seemingly arbitrary and ad hoc line drawing to resolve this issue"); John S. McGee, *Why Not "Deregulation" for Antitrust?*, 46 ANTITRUST L.J. 777, 780 (1977) (musing that "it would [] help if there were some way to guarantee that markets will be sensibly defined"); David T. Scheffman & Pablo T. Spiller, *Geographic Market Definition under the U. S. Department of Justice Merger Guidelines*, 30 J. L. & ECON. 123, 128 (1987) (implying that the *Brown Shoe* market definition processes "[failed to] focus on whether the merger may have an anticompetitive effect"); Richard Schmalensee, *Another Look at Market Power*, 95 HARV. L. REV. 1789, 1799 (1982) (stating that market share analysis could only yield useful results in the unusual situation that a market was "bounded by a 'marked gap in the chain of substitutes'"); *see also* David Scheffman, Malcolm Coate & Louis Silvia, *Twenty Years of Mer-ger Guidelines Enforcement at the FTC: An Economic Perspective*, 71 ANTITRUST L.J. 277, 282 (2003) (reminding that, before the 1982 Merger Guidelines, antitrust "had labored for decades with an amorphous approach to market definition, which often was not economically sound and provided little actual guidance or clarity").

[88] Though the 1982 Merger Guidelines are often credited as introducing this test, the idea seems to have occurred to various authors around the same time. *See, e.g.*, LAWRENCE SULLIVAN, HANDBOOK OF THE LAW OF ANTITRUST 4 (1977) (defining relevant markets by asking whether a price increase in a provisional market could be maintained for some time); 2 PHILLIP AREEDA & DONALD F. TURNER, ANTITRUST LAW 347 (1978) (defining a market as a group of firms that would have market power if acting in unison); Gregory J. Werden, *The Use and Misuse of Shipments Data in Defining Geographic Markets*, 26 ANTITRUST BULL. 719, 721 (1981) (defining a market by asking whether a merger of all its producers would result in a price increase); Kenneth D. Boyer, *Is There a Principle for Defining Industries?*, 50 S. ECON. J. 761, 763 (1984) (defining a market as an ideal collusive group).

[89] The HMT has been significantly revised over the years but has retained much of its core structure. *Compare* 1982 MERGER GUIDELINES, *supra* note 73, § II.A *with* U.S. DEP'T OF JUSTICE & FED. TRADE COMM'N, HORIZONTAL MERGER GUIDELINES § 4.1 (August 19, 2010) [hereinafter 2010 HORIZONTAL MERGER GUIDELINES].

amount. If the answer is "yes," then the provisional market is validated as a potential relevant market; if "no," then more firms and products are added to the provisional market and the process is repeated—iterating until the market has been expanded enough that a small but substantial price increase would be imposed.[90]

The HMT was immediately lauded as a triumph. Ordover and Willig called it as a "noteworthy intellectual feat," that focused "much of the best available economic learning" on the task of "appropriate economic analysis" in merger cases.[91] Robert Pitofsky praised it as a "formidable achievement,"[92] crediting its "orderly, intellectual approach" as helping to make market definition "a more coherent exercise during the 1980s than in previous decades."[93] Others were equally effusive.[94] While the Federal Trade Commission did not initially include the HMT in its public statements,[95] it seems to have quickly adopted the approach internally,[96] and formally endorsed the HMT in jointly issued merger guidelines in 1992.[97] One after another, lower courts and international antitrust jurisdictions likewise joined in, accepting the HMT as the newest and most sophisticated test of market definition to date.[98]

Enthusiasm for the HMT owed to its tight connection to the policy goals and enforcement focuses of 1980s antitrust. Like antitrust policy generally,

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[90] This presentation of the HMT leans closest to the its most recent recitation in the 2010 Horizontal Merger Guidelines. Distinctions from the 1982 version are not relevant to the analysis of this Article.

[91] Ordover & Willig, *supra* note 81, at 539. *See also id.* at 537 (describing the HMT as "consistent with economic learning and helpful for logically resolving otherwise difficult [market delineation] issues").

[92] Pitofsky, *supra* note 10, at 1822.

[93] *Id.* at 1808.

[94] *See, e.g.*, Baker & Blumenthal, *supra* note 39, at 322 (commenting that in suggesting the HMT, the 1982 Merger Guidelines "probably make their most important contribution to future merger enforcement"); *see also* John E. Lopatka, *Market Definition?*, 39 REV. INDUS. ORGAN. 69, 86 (2011) ("The reformulation of market definition in the 1982 guidelines was lauded because it shaped merger analysis in an economically appropriate way."); Scheffman, Coate, & Silvia, *supra* note 87, at 282 (commenting that "[t]he importance and brilliance of [the HMT] cannot be overstated," that the HMT is "far superior to what it replaced," and that "to this day, no one has advanced anything better").

[95] FED. TRADE COMM'N, STATEMENT OF FEDERAL TRADE COMMISSION CONCERNING HORIZONTAL MERGERS § VI.A (June 14, 1982).

[96] Scheffman, Coate, & Silvia, *supra* note 87, at 281 ("[A]lmost from the beginning, FTC legal staff embraced the DOJ Guidelines as the analytical framework for merger analysis.").

[97] U.S. DEP'T OF JUSTICE & FED. TRADE COMM'N, HORIZONTAL MERGER GUIDELINES § 1.11 (April 2, 1992) [hereinafter 1992 HORIZONTAL MERGER GUIDELINES].

[98] *See supra* note 13.

the HMT was concerned with market power, its accretion and exercise.[99] Like merger enforcement in particular, the HMT was focused on identifying groups of competitors that could collude to raise prices, at least under ideal conditions.[100] This made relevant markets defined by the HMT valuable tools of merger analysis. Only within such markets did it make sense to explore a merger's potential to bring about coordinated harm.[101] And when that exploration *was* undertaken, the HMT provided a principled connection between market concentration and the threat of coordinated exercises of market power.[102]

Space constraints prevent exhaustive discussion of all the possible examples, but outside of coordination concerns, concentration in an HMT relevant market was informative of other potential market power concerns as well. It related market concentration to the risk of post-merger market power being exercised by a leading firm, for example.[103] Suitably modified, it could also relate market structure to exclusionary practices and market power concerns in monopolization cases.[104]

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[99] *See* Areeda, *supra* note 71, at 307 ("[The HMT] correctly relate[s] market definition to the ultimate legal issue—the prospect that the merging firms will achieve price-raising power or that the merger will facilitate price coordination among oligopolists."); Pitofsky, *supra* note 10, at 1822 ("[B]y focusing on the capacity for the future exercise of market power, [the HMT asks] a central question that often had been inadequately treated in the past.").

[100] *See* Baxter, *supra* note 70, at 623 ("The idea behind [the HMT] is quite simple. The merger of two sellers of a product in an area can create a significant danger of collusive price increases only if the merger of all sellers of that product in that area would cause price to rise significantly."); Glasner & Sullivan, *supra* note 12, at 24 (more generally defining a relevant market as "a class of transactions in which the suspected injury could occur, at least under assumptions favorable to that theory of harm").

[101] *See* Baxter, *supra* note 70, at 625 ("After having defined the relevant market, the Division must analyze the effect of the merger in that market."); Gregory J. Werden, *Market Delineation and the Justice Department's Merger Guidelines*, 1983 DUKE L.J. 514, 532 (1983) ("Given any cost of collusion, such as the risk of prosecution, there must be some point at which sellers compete so little that they would never collude.").

[102] *See, e.g.*, Ordover & Willig, *supra* note 81, at 553 (describing the connection between coordination, market concentration, and market shares as "well-supported and generally accepted" though noting the importance of other variables as well); *see also* George J. Stigler, *A Theory of Oligopoly*, 72 J. POL. ECON. 44 (1964) (modeling cartel stability as a function of market concentration).

[103] *See* William M. Landes & Richard A. Posner, *Market Power in Antitrust Cases*, 94 HARV. L. REV. 937, 944-50 (1981) (relating market share to the market power of a dominant firm); Janusz A. Ordover, Alan O. Sykes, & Robert D. Willig, *Herfindahl Concentration, Rivalry, and Mergers*, 95 HARV. L. REV. 1857, 1867–72 (1982) (relating market concentration to merger effects at various levels of cooperativeness among firms).

[104] *Cf.* Lawrence J. White, *Market Power and Market Definition in Monopolization Cases: A Paradigm is Missing*, *in* 2 ISSUES IN COMPETITION LAW AND POLICY 913, § III (Wayne D.

In summation, the Chicago-School revolution of the 1980s brought more than a change in policy and focus to antitrust; it also ushered in a new approach to market definition. Within the antitrust agencies and among practitioners, tests like *Brown Shoe*'s practical indica were supplanted by the HMT. The important exception was the courts, which continued to recite and rely upon the old tests as binding precedent. Even here, however, the HMT was accepted as persuasive authority,[105] and the market-power focus of the HMT did much to help reshape understanding of older market definition standards.[106] To put it simply, the HMT's rein in antitrust was sure and strong—until things changed again.

C. The Post-Chicago Era of the 2000s

Compared to the upheaval of the Chicago-School revolution of the 1980s, Post-Chicago antitrust arose on a slower boil. The workhorse models of Chicago-School antitrust were known from the start to be oversimplified in important respects.[107] Efforts to enrich the models began immediately.[108] This research—which used game theory and new empirical methods to work from more realistic models of competition—eventually came to be known as Post-Chicago antitrust.[109] Starting in the early 1990s and continuing well into the 2010s, efforts to update Chicago-School thinking revealed several derelict antitrust concerns to be more serious or tractable

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Collins ed., 2008) (discussing modification of the HMT to fit a monopolization context); Glasner & Sullivan, *supra* note 12, § II.B.2 (similar).

[105] *See supra* note 13.

[106] *See supra* note 61.

[107] *See* Hovenkamp, *supra* note 78, at 256–64 (critiquing classical Chicago-School antitrust as relying too much on static models of competition and insufficiently addressing strategic considerations); Schmalensee, *supra* note 87, at 1793–98 (identifying restrictive assumptions in one influential model, and discussing how the model's implications change when these assumptions are relaxed or varied).

[108] *See, e.g.*, Steven C. Salop & David T. Scheffman, *Raising Rivals' Costs*, AM. ECON. REV., May 1983, at 267 (illustrating how a dominant firm might profit by strategically raising the production costs of its rivals); Louis Kaplow, *Extension of Monopoly Power Through Leverage*, 85 COLUM. L. REV. 515 (1985) (critiquing the persuasiveness of Chicago-School arguments against antitrust intervention in some leveraging cases); Robert D. Willig, *Merger Analysis, Industrial Organization Theory, and Merger Guidelines*, 1991 BROOKINGS PAPERS ON ECON. ACTIVITY: MICROECONOMICS 281, 299–305 (1991) (describing a modern unilateral effects model for a merger of competitors in a differentiated product space).

[109] *See* Herbert Hovenkamp, *Post-Chicago Antitrust: A Review and Critique*, 2001 COLUM. BUS. L. REV. 257, 268 (2001) ("The real value of post-Chicago economics is its renewed recognition of the fact that markets are much more varied and complex than Chicago theorists were willing to admit.").

than previously believed.[110] These were significant developments, but in the language of this discussion, they were changes not in policy but focus.

The policy goals antitrust remained the same as they were in the 1980s. The consumer welfare standard still reined.[111] Potential price effects and questions of economic efficiency still animated scholarship.[112] Market power and changes in market power still delimited the universe of antitrust concerns and injuries.[113]

The major changes in post-Chicago antitrust were methodological. Many antitrust scholars,[114] and even some courts,[115] cautioned against too much reliance on the competitive process to cure market power problems, and certain categories of conduct came to be viewed more skeptically than in the 1980s. The most obvious example of this change in focus was a seismic shift in merger enforcement from its previous concern with "coordinated effects" to concern with "unilateral effects."

The difference between these concepts is subtle. Where coordinated effects involve something like the facilitation of tacit collusion by merger, unilateral effects involve the elimination of competition between the merging entities and the incentives this creates for the merged firm to exercise market power.[116] The difference from an economic perspective is that the latter approach is often more determinate. Economic models of coordination support qualitative inferences about the effects of a merger, but rarely provide quantitative statements about market power.[117] Unilateral

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[110] *See id.* at 258 (attributing to Post-Chicago antitrust a less permissive view of the conduct of dominant firms, a more serious concern for the potential effects of mergers, and willingness to consider some vertical restraints to be anticompetitive).

[111] *See supra* note 76 and sources cited therein.

[112] *See* Hovenkamp, *supra* note 39, at 903–04 ("[T]he central concern of merger policy is to protect consumers from high prices that result from reduced output.").

[113] *See, e.g.*, U.S. DEP'T OF JUSTICE & FED. TRADE COMM'N, COMMENTARY ON THE HORIZONTAL MERGER GUIDELINES 1 (March 2006) ("The core concern of the antitrust laws, including as they pertain to mergers between rivals, is the creation or enhancement of market power.").

[114] *See generally* HOW THE CHICAGO SCHOOL OVERSHOT THE MARK: THE EFFECT OF CONSERVATIVE ECONOMIC ANALYSIS ON U.S. ANTITRUST (Robert Pitofsky ed., 2008) (collecting Post-Chicago commentary on antitrust policy).

[115] *E.g.*, United States v. AMR Corp., 335 F.3d 1109, 1114–15 (10th Cir. 2003) (noting that "[r]ecent scholarship has challenged the notion that predatory pricing schemes are implausible and irrational" and that "[p]ost–Chicago economists have theorized that price predation is not only plausible, but profitable, especially in a multi-market context" before stating that "[a]lthough this court approaches the matter with caution, we do not do so with the incredulity that once prevailed").

[116] *Compare* 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 89, § 7 *with id.* § 6.

[117] *See* Louis Kaplow & Carl Shapiro, *Antitrust*, *in* 2 HANDBOOK OF LAW AND ECONOMICS 1073, 1106 (A. Mitchell Polinsky & Steven Shavell eds., 2007) (describing supergame theory,

effects models, in contrast, often do offer quantitative statements about the market power implications of mergers. The apparent precision of these statements is attractive to both economists and litigators.

Starting in the mid 1990s, rapidly growing attention to unilateral effects led this concern to overtake coordinated effects as the primary focus of merger enforcement. From data compiled on Federal Trade Commission investigations, Malcolm Coate reports unilateral effects rising from the primary focus of less than 20 percent of horizontal merger investigations at the start of the 1990s to well over 75 percent of investigations by 2010.[118] The same change in focus is reflected in the Merger Guidelines. Where the 1982 Merger Guidelines devoted barely a paragraph to an early precursor to unilateral effects analysis,[119] the 1992 Horizontal Merger Guidelines treated unilateral effects in roughly the same detail as coordinated effects, and the 2010 Horizontal Merger Guidelines currently discuss unilateral effects at length, devoting nearly twice the space to this topic as to a decidedly looser treatment of coordinated effects.[120]

This was a regime change; and once again regime change invigorated complaints about existing market definition processes. Kaplow's campaign against market definition focused on the ability of economists to use estimates of elasticities and other terms to predict market power without delineating markets.[121] This claim, and the responses it provoked,[122]

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upon which most economic models of coordination are based, as "of limited use because it proves too much").

[118] Malcolm B. Coate, *The Merger Review Process at the Federal Trade Commission from 1989 to 2016*, Table 4 (February 28, 2018), https://ssrn.com/abstract=2955987. If anything, these figures undercount the prevalence of unilateral effects theories, as they do not include a number of "merger to monopoly" cases involving unilateral effects concerns; *see also* Herbert Hovenkamp & Carl Shapiro, *Horizontal Mergers, Market Structure, and Burdens of Proof*, 127 YALE L.J. 1996, 2014 (2018) ("[T]he clear majority of merger investigations focuses on unilateral effects; only a minority focuses on coordinated effects."); Carl Shapiro, *The 2010 Horizontal Merger Guidelines: From Hedgehog to Fox in Forty Years*, 77 ANTITRUST L.J. 49, 60 (2010) ("The biggest shift in merger enforcement between 1992 and 2010 has been the ascendency of unilateral effects as the theory of adverse competitive effects most often pursued by the Agencies.").

[119] *See* Shapiro, *supra* note 118, at 54.

[120] *Compare* 1992 HORIZONTAL MERGER GUIDELINES, *supra* note 97, §§ 2.1–2.2 *with* 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 89, §§ 6–7; *see also* Herbert Hovenkamp, *Harm to Competition Under the 2010 Horizontal Merger Guidelines*, 39 REV. INDUS. ORGAN. 3, 11 (2011) (observing this same expansion in the treatment of unilateral effects).

[121] *See supra* note 24.

[122] *See, e.g.*, Duncan Cameron, Mark Glick, & David Mangum, *Good Riddance to Market Definition?*, 57 ANTITRUST BULL. 719 (2012); Malcolm B. Coate & Joseph J. Simons, *In Defense of Market Definition*, 57 ANTITRUST BULL. 667 (2012); Gregory Werden, *The Relevant Market: Possible and Productive*, ANTITRUST L.J. ONLINE (April, 2014); Gregory Werden, *Why (Ever)*

concerned market definition broadly. But the critique fell hardest where distaste for market definition was already most strong: in the differentiated product space, where unilateral effects models were already being used to draw market power inferences without recourse to tools like the HMT. Other criticisms of market definition as crude and economically unsophisticated quickly emerged and continue to this day.[123]

A common subject of critique is the binary way in which market definition, including the HMT, labels products and producers as either inside or outside of a relevant market. Joseph Farrell and Carl Shapiro, for example, warn that in a differentiated product space "there is no clearly right way" to make these determinations, creating the "risk that the outcome of a merger [case] may turn on an inevitably artificial line-drawing exercise."[124] Mark Lemley and Mark McKenna similarly caution that current market definition "draws an arbitrary line when what we need is a continuum that reflects the partial differentiation of products."[125] Lack of granularity is a concern upon which many commentators agree.[126]

More generally, market definition has come to be regarded as an old and unsophisticated tool of analysis. Dennis Carlton calls it "crude."[127] Farrell and Shapiro call it "clumsy."[128] The point is the same. At best, market definition is seen as a tool designed for the undifferentiated product spaces of the past.[129] Otherwise, it is seen as less "based in economics" than more

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Define Markets? An Answer to Professor Kaplow, 78 ANTITRUST L.J. 729 (2013) [hereinafter Werden, *Answer*].

[123] David S. Evans, *Lightening Up on Market Definition*, *in* RESEARCH HANDBOOK ON THE ECONOMICS OF ANTITRUST LAW 53, 72 (Einer Elhauge ed., 2012) ("While the hypothetical monopoly test was viewed as a significant methodological advance when it was introduced in 1982, the antitrust profession has become less enamored with it over time.").

[124] Joseph Farrell & Carl Shapiro, *Antitrust Evaluation of Horizontal Mergers: An Economic Alternative to Market Definition*, 10 B.E. J. THEORETICAL ECON., March 2010, art. 9, at 1, 4.

[125] Mark A. Lemley & Mark P. McKenna, *Is Pepsi Really a Substitute for Coke? Market Definition in Antitrust and IP*, 100 GEO. L. REV. 2055, 2098 (2012).

[126] *E.g.*, 2B AREEDA, HOVENKAMP, & SOLOW, *supra* note 16, ¶ 530, at 238 ("This 'either-or' nature of market definition can readily be criticized to the extent that compromises between full inclusion or full exclusion are typically not available.); Malcolm B. Coate & Jeffrey H. Fischer, *Is Market Definition Still Needed After All These Years*, 2 J. ANTITRUST ENFORCEMENT 422, 425 (2014) ("Of course, the idea of a market—and, in particular, the idea that products are 'in' or 'out' of the market—is an abstraction, especially when product differentiation is material.").

[127] Dennis W. Carlton, *Market Definition: Use and Abuse*, 3 COMPETITION POL'Y INT'L 3, 3 (2007).

[128] Farrell & Shapiro, *supra* note 124, at 1.

[129] *See* Lemley & McKenna, *supra* note 125, at 2081 ("Antitrust market definition hearkens back to the days of readily interchangeable commodities, like grain or plywood.");

sophisticated tools like modern unilateral effects models.[130] Worst of all, the process of defining relevant markets is increasingly characterized as entirely untethered to economic theory.[131]

In the thumbnail sketches of previous antitrust regimes, this is the point where a new market definition process is introduced to regain acceptance and renewed confidence in the exercise. Part III of this Article argues that a new processes has indeed arisen: unilateral effects models are a market definition innovation of this regime. But the conventional narrative is different. It does not connect these new models to the historic evolution of market definition. Instead, it holds that market definition is being replaced by things like unilateral effects models and similar tools based on estimated elasticities, price-cost margins, and diversion ratios.

The 2010 Horizontal Merger Guidelines epitomize the replacement narrative. The Guidelines state, for example, that in diagnosing unilateral effects, the antitrust agencies "need not rely on market definition or the calculation of market shares and concentration."[132] They also opine that "[s]ome of the analytical tools used by the Agencies to assess competitive effects do not rely on market definition."[133] Statements like these are read by many as suggesting a diminished role for market definition.[134]

Shapiro, *supra* note 118, at 53 ("The 1982 Guidelines were written with relatively homogeneous, industrial products in mind.").

[130] *E.g.*, Farrell & Shapiro, *supra* note 124, at 2 ("[O]ur approach is . . . much more directly based in economics[] than the market concentration approach."); *see also* Joseph Farrell & Carl Shapiro, *Upward Pricing Pressure in Horizontal Merger Analysis: Reply to Epstein and Rubinfeld*, 10 B.E. J. THEORETICAL ECON., September 2010, art. 41, at 1, 1 ("[I]t is desirable to diagnose unilateral price effects using simplified methods that are well-grounded in economics and not necessarily based on market definition and market shares.").

[131] *See, e.g.*, Evans, *supra* note 123, at 54 ("Market definition, and the related subject of market power, is one of the few remaining areas in which the courts rely on an approach that is not supported by economic science."); Kaplow, *Impossible*, *supra* note 24, at 364 ("[T]he notion of a relevant market does not exist [in industrial organization economics].").

[132] 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 89, § 6.1 ¶ 6; *see also id.* ("The Agencies rely much more on the value of diverted sales than on [market concentration] for diagnosing unilateral price effects in markets with differentiated products."); Shapiro, *supra* note 118, at 63 (commenting that the 1992 Horizontal Merger Guidelines "suffered from a mismatch between the basic theory of differentiated product pricing competition, which emphasizes diversion, and . . . historical reliance on market shares and HHIs.").

[133] 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 89, § 4 ¶ 2.

[134] *E.g.*, Dennis W. Carlton & Mark Israel, *Will the New Guidelines Clarify or Obscure Antitrust Policy?*, ANTITRUST SOURCE, October 2010, 1, 4 (expressing concern with the "de-emphasis of the use of market definition"); Crane, *supra* note 26, at 32 (noting that the Guidelines "demoted market definition from the critical starting point to merely one available tool in merger cases"); Keyte & Schwartz, *supra* note 29, at 599 (expressing concern with the "the Agencies' diminished focus on market definition").

As earlier foreshadowed, however, efforts to move away from market definition have not gone smoothly. Even as the current Guidelines indicate that market definition is not always necessary, they paradoxically retain quasi-safe harbors and presumptions of anticompetitive concern based on market definition.[135] Courts have long viewed market definition as the threshold to rule of reason analysis,[136] and some have balked at the mere prospect of a case being litigation without discrete definition of a relevant market.[137] This has led to the disquieting practice of antitrust agencies sometimes defining relevant markets for litigation purposes alone.[138] And whenever the agencies do define relevant markets in litigation, they remain partly tethered to the old 1960s market definition tests that courts still to cling to despite decades of disconnect from modern policy.[139]

This brief history of market definition ends with the current crisis. While new and excitingly quantitative models have stolen the eye of many antitrust practitioners and economists, the HMT remains awkwardly fixed in at least merger practice, and courts continue to recite and rely upon the old market definition tests of the 1960s. The standoff between these various approaches is at the heart of the chaos and confusion that abounds today. The way to end the standoff is to look for common ground.

II. How Market Definition Has Stayed the Same

The tendency to ignore changes in antitrust policy when reciting old opinions also compels a common but false narrative: that all the various

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[135] 2010 Horizontal Merger Guidelines, *supra* note 89, § 5.3.

[136] *Cf.* United States v. Oracle Corp., 331 F. Supp. 2d 1098, 1110 (N.D. Cal. 2004) ("In determining whether a transaction will create or enhance market power, courts historically have first defined the relevant product and geographic markets within which the competitive effects of the transaction are to be assessed.").

[137] *E.g.*, F.T.C. v. Whole Foods Mkt., Inc., 548 F.3d 1028, 1036 (D.C. Cir. 2008) (objecting that "[i]nexplicably, the FTC now asserts a market definition is not necessary in a § 7 case . . . in contravention of the statute itself").

[138] *See, e.g.*, Carl Shapiro, Update from the Antitrust Division, Remarks as Prepared for the American Bar Association Section of Antitrust Law Fall Forum (Nov. 18, 2010), https://www.justice.gov/atr/file/518246/download (reassuring listeners that the DOJ still "recognizes the necessity of defining a relevant market as part of any merger challenge we bring").

[139] *Cf.* Fed. Trade Comm'n v. Wilh. Wilhelmsen Holding ASA, 341 F. Supp. 3d 27, 47 (D.D.C. 2018) ("Courts employ two main analytical approaches in [market definition]. These include the hypothetical monopolist test . . . and the 'practical indicia' described by the Supreme Court in Brown Shoe"); United States v. Aetna Inc., 240 F. Supp. 3d 1, 20–21 (D.D.C. 2017) (citing both the *Brown Shoe* practical indicia and the HMT as parallel sources of evidence upon which market definition would be based); United States v. H & R Block, Inc., 833 F. Supp. 2d 36, 50–52 (D.D.C. 2011) (same).

processes of market definition aim to identify the same market concept. Acting as though the different tests target the same thing, for example, lower courts frequently rely on both the *Brown Shoe* practical indicia and the HMT as parallel authority for defining relevant markets in merger cases.[140] Scholarship is susceptible to this trap as well, especially when it describes market definition in terms suggesting too much constancy in the exercise or when it reads new policy objectives into old tests.[141]

The weakness of the constant-concept narrative is laid bare by the previous discussion. Over the decades, different antitrust regimes have pursued different policy goals and enforcement focuses through different processes of market definition. Looked at this way, it would actually be quite shocking if the various market definition processes did converge on the same relevant market outcomes with any frequency. They should not be expected to do so. In market definition, all roads do not lead to Rome.

Still, even false narratives may grow around a kernel of truth—and looking back over the various market definition processes reveals a set of underlying purposes that has remained remarkably unchanged even as the process of market definition has twisted and evolved over the decades. The following discussion separates this constant purpose of market definition from its changing process and explores what this historic consistency in purpose reveals about market definition.

A. The Constant Purpose of Market Definition

Nobody would confuse an MRI with a cardiovascular stress test, yet both serve the common purpose of helping to identify or rule out potentially serious medical conditions. The analogy to antitrust market definition is closer than it appears. Though targeted at different antitrust concerns, all the various market definition processes appear to serve similar diagnostic ends. These include (1) identifying a scope of trade within which a particular injury could occur, (2) connecting the structure of competition in that scope of trade to the potential injury in question, and (3) providing a context within which further analysis may help to assess the potential injury. The following elaborates on each of these function in turn.

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[140] *See supra* note 139.

[141] *Cf.* Phillip Areeda, *Market Definition and Horizontal Restraints*, 52 ANTITRUST L.J. 553, 583 (1983) ("Antitrust law uses the relevant market concept only for the purpose of inferring the defendant's market power from his market share."); Pitofsky, *supra* note 10, at 1810–1817 (discussing the "conventional approach" to market definition of the 1960s, and its defects, in terms of market power considerations).

1. Identifying the Scope of Potential Injury

Throughout the history of antitrust law, market definition has always served to identify a scope of trade within which a given type of competitive injury could occur.[142] This function is implicitly recognized in claims that the role of market definition is to help assess the potential for competitive harm.[143] It is all but explicit in the Supreme Court's explanation that the purpose of market definition "is to determine whether an arrangement has the potential for genuine adverse effects on competition."[144] But while the base notion that market definition performs a scoping function is not itself remarkable, the flexibility and durability of this purpose *is* remarkable, and also instructive for market definition practice.

The HMT is a helpful starting point. Here, the scoping function of market definition is obvious. Developed initially for merger cases in which coordinated effects were the primary concern, the HMT is by its terms concerned with identifying a group of competitors who could potentially collude to successfully exercise jointly held market power.[145]

The requirement that a relevant market satisfy the conditions of the HMT serves two scoping functions in this context. First, it ensures that efforts will not be wasted exploring an impossible theory of coordination. If even united as a hypothetical monopolist the competitors in question could not sustain a small price increase, then the risk of their coordination poses no threat of enhancing market power.[146] Second, it ensures that in exploring a plausible theory of coordination, it is the interaction of competitors in the

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[142] *See* Hovenkamp, supra note 39, at 900 ("Those challenging a merger need to be able to identify a grouping of sales in which the feared harm to competition is likely to occur."); Werden, *supra* note 52, at 197 ("The main idea upon which the Guidelines' approach is built is that market delineation must be closely linked to the ultimate goal of identifying mergers that create or enhance market power.").

[143] *E.g.*, 2B AREEDA, HOVENKAMP, & SOLOW, *supra* note 16, ¶ 531 ("Finding the relevant market and its structure is . . . but a mechanism for considering the plausibility of antitrust claims that the defendants' business conduct will create, enlarge, or prolong market power."); Christine E. Varney, *The 2010 Horizontal Merger Guidelines: Evolution, Not Revolution*, 77 ANTITRUST L.J. 651, 653 (2011) (commenting that flexibility in the process of market definition "flows from the purpose of defining markets—helping to assess a merger's potential to harm consumers.").

[144] F.T.C. v. Indiana Fed'n of Dentists, 476 U.S. 447 (1986).

[145] *Cf.* 2B AREEDA, HOVENKAMP, & SOLOW, *supra* note 16, ¶ 533e, at 275 ("The function of defining a market is to determine that grouping of sales that, if controlled by a single firm or a cartel, could charge noncompetitive prices."); *supra* note 88 (collecting similar notions of market definition).

[146] *See* Areeda, *supra* note 141, at 562 (commenting that the initial analytical question in assessing concerns about anticompetitive collaboration is to ask "whether the collaborators, viewed collectively, possess market power").

relevant market that most directly informs the potential injury. This follows from the way the HMT defines a relevant market: encompassing those competitors whose competition currently frustrates the hypothesized exercise of market power.[147]

Similar scoping functions are performed by the old market definition tests of the 1960s—though for different theories of harm. As previously discussed, the populist antitrust regime of the 1960s was motivated by the objective of maintaining deconcentrated industries and protecting small businesses, among other things.[148] Tests like *Brown Shoe*'s practical indicia facilitate assessment of these concerns by identifying significant "industries" within which problems could arise.[149]

This is, in fact, how the tests were described at the time. In *du Pont-General Motors*, the Supreme Court counseled that market definition was necessary "because the threatened monopoly must be one which will substantially lessen competition 'within the area of effective competition.'"[150] In *Walker Process*, it explained that without market definition "there is no way to measure [an attempted monopolist's] ability to lessen or destroy competition."[151] Neither statement makes any sense by modern standards. Market power can be assessed without engaging in the market definition. But the Court's claims make perfect sense in terms of the concerns of the time.[152] To forestall rising industrial concentration and to product small businesses, it is indeed necessary to start from a relevant market: how else could one assess claims of increased concentration (in what market would concentration grow?) or injury to small business (in what market would small businesses be harmed?).[153]

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[147] *See* Willig, *supra* note 108, at 284 ("[T]his process of delineating relevant markets calibrates the market power that is of concern in a horizontal merger."); *see also* Franklin M. Fisher, *Economic Analysis and "Bright-Line" Tests*, 4 J. COMP. L. & ECON. 129, 133 (2008) (suggesting that "a useful market definition should include in the market all of the firms and products or services that constrain the exploitation of monopoly power by the firm (or group of firms) under consideration").

[148] *See supra* notes 41–43.

[149] *See* Glasner & Sullivan, *supra* note 12, at 10–11 (noting that for purposes of protecting small businesses and preventing industrial concentration, *Brown Shoe*'s practical indicia test was a reasonable approach); *id.* at 15 (drawing a connection between early substitutability tests and the observation of industry boundaries).

[150] United States v. E. I. du Pont de Nemours & Co. (*du Pont-General Motors*), 353 U.S. 586, 593 (1957).

[151] Walker Process Equip., Inc. v. Food Mach. & Chem. Corp., 382 U.S. 172, 177 (1965).

[152] *See supra* notes 65, 67 (connecting 1960s market definition processes to the policy goals of the time).

[153] In *Brown Shoe*, the Court described Congress as intending "the protection of small businesses," *Brown Shoe Co. v. United States*, 370 U.S. 294, 316 (1962), while also intending

Finally, similar scoping functions are performed by unilateral effects models in post-Chicago merger review—in this case, helping to assess the potential unilateral exercise of market power by the merging firms. While much of the relevant discussion is deferred to Part III, the key property of unilateral effects models suffices to establish this point: by construction, these models purport to identify a pair of competitors who, if they were to merge, would have capacity to exercise market power despite the presence of competitors.[154] In the same way that the HMT identifies a set of competitors capable of exercising joint market power, and the practical indicia identified an industry in which concentration could be increased or small business interests could be harmed, unilateral effects models identify a set of competitors capable of exercising unilateral market power. The only remarkable thing about this observation is that these models are not today seen as a process of market definition.[155]

2. Connecting Market Structure to Potential Injury

Another consistent function of market definition has been to connect market structure to the potential injury in question.[156] This role is important enough that market definition and market structure analysis are frequently confused for one another.[157] A related misconception is that the only purpose of market definition is to facilitate computation of market shares.[158] While connecting market shares to certain potential injuries is indeed an important role of market definition, the relationship between relevant

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"the protection of competition, not competitors," *id.* at 320. A reasonable way to reconcile these positions is to read the protection of antitrust law as extending to the general interests of all small businesses in the relevant market, as opposed to the proprietary interests of any given business. This suggests a need for market definition even when individualized small-business injuries might be identifiable in the record.

[154] *See infra* notes 179–185 (summarizing unilateral effects models).

[155] *Cf.* Hovenkamp, *supra* note 39, at 908 (observing that unilateral harm in a differentiated product space "does not fit well into our conception of market definition").

[156] *See* Cameron, Glick, & Mangum, *supra* note 122, at 724 ("The relevant market exercise channels [] information into a useable analytical framework that identifies the important restraints on a firm's ability to exercise market power.").

[157] *See* Baker & Blumenthal, supra note 39, at 327 (commenting that the identification of market participants, and calculation of shares, is so closely related to market definition that the two are often conflated with each other).

[158] *E.g.*, Areeda, *supra* note 141 ("Antitrust law uses the relevant market concept only for the purpose of inferring the defendant's market power from his market share."); Kaplow, *Impossible*, *supra* note 24, at 363 & n.3 (equating market definition with drawing "market power inferences from market shares" and expressing doubt that it serves other purposes).

markets and competitive structure is broader and more flexible than this one specific example suggests.

The HMT is, again, a natural starting point. By identifying a scope of trade in which joint market power could be exercised if enough of the constituent competitors cooperated to do so, the HMT connects the threat of this potential injury to features of market structure, such as the number of independent competitors in the potentially collusive group, their relative sizes, capacities, and incentives. The idea that collusion is easier with fewer competitors was consistent with oligopoly models of the 1980s[159] and is still consistent with oligopoly models today.[160] Market definition thus connects market structure to the assessment of this potential injury.

In the interest of brevity, a few similar examples will be noted without detailed discussion. Where the concern is that a merger of competitors may lead to price elevation in a commodity product space, economic models connect the market shares of the merging firms in an HMT relevant market to the threat of price increases.[161] Likewise, where the concern is that a dominant firm may leverage existing contracts to exclude smaller rivals, market share figures may again be informative.[162] Here, appropriate modification of the HMT could identify a scope of trade within which exclusionary conduct could lead to the maintenance of market power, and also connect the market share of the dominant firm to the plausibility of successful and anticompetitive exclusion.[163]

The above examples illustrate well-known examples of market structure inferences, but hardly exhaust the ways that market structure can relate to

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[159] *See supra* note 102 (providing early examples of the connection between market concentration and the likelihood of anticompetitive coordination).

[160] *See, e.g.*, Kaplow & Shapiro, *supra* note 117, § 3.2.1 (summarizing elements of successful collusion in economic models of oligopoly); *id.* at 1112 ("Collusive outcomes are less likely to occur in industries with more firms because greater numbers make it more difficult to satisfy the . . . conditions necessary for successful collusion."); Steffen Huck, Hans-Theo Normann, & Jörg Oechssler, *Two Are Few and Four Are Many: Number Effects in Experimental Oligopolies*, 53 J. ECON. BEHAV. & ORG. 435 (2004) (reporting experimental evidence on the relationship between number of competitors and collusion).

[161] *See, e.g.*, Joseph Farrell & Carl Shapiro, *Horizontal Mergers: An Equilibrium Analysis*, 80 AM. ECON. REV. 107 (1990) (discussing how unilateral output incentivization may result from a merger of competitors in an undifferentiated product space); R. Preston McAfee and Michael A. Williams, *Horizontal Mergers and Antitrust Policy*, 40 J. INDUS. ECON. 181 (1992) (similar).

[162] *Cf.* Lorain Journal Co. v. United States, 342 U.S. 143, 149–50 (1951).

[163] *See* HERBERT HOVENKAMP, FEDERAL ANTITRUST POLICY: THE LAW OF COMPETITION AND ITS PRACTICE 110–11 (5th ed. 2016) (citing predatory pricing, foreclosure, and tying as examples of exclusionary conduct offenses "that are plausible only [when] the defendant occupies a large portion of the relevant market in question").

potential injury concerns. In the highly structural and protectionist era of the 1960s, for example, increased concentration was to a significant extent the potential injury that antitrust sought to avoid. The inference did not run from market structure to market power in the way it does in the above examples, but this was certainly a context in which market definition served to connect market structure to potential injuries of concern. The very point of tests like *Brown Shoe*'s practical indicia was to connect evidence of market structure to the antitrust concerns of the time.

Market structure inferences are also implicated in the post-Chicago unilateral effects models of the 2000s. As discussed further in Part III, the prediction that unilateral market power will be exercised following a merger of competitors in a differentiated product space is essentially a statement that the products of the merging firms are—alone—a valid relevant market. Put another way, modern unilateral effects models identify relevant markets in which the merging parties are the only competitors. To the extent that economic theory predicts market power effects from this type of merger, it is precisely because the merger would convert the structure of this relevant market from duopoly to monopoly.[164] The only remarkable thing about this observation is that unilateral effects models are today seen as not involving market structure inferences.[165]

3. Contextualizing Further Analysis of Potential Injury

Finally, history shows another important role of market definition to be provision of a context in which further analysis can be helpfully performed. This purpose is well recognized in the literature, where market definition is often described as a foundation for full competitive effects analysis,[166] or as serving to organize the information relevant to a potential injury.[167] The root observation is that market definition is not an end itself, but a tool to aid in further analysis of a competitive concern.

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[164] Though an uncommon characterization of unilateral effects analysis, the root idea is not new. *See* Ordover & Willig, *supra* note 81, at 557 ("If the merger partners were the only actual and potential participants in the relevant market, then the merger would have the effect of forming the very cartel whose existence was postulated in the market definition process.").

[165] *See supra* notes 132–134, 182–185.

[166] *E.g.*, Coate & Simons, supra note 122, at 667 (describing market analysis as "the foundation for a case-specific competitive analysis").

[167] *E.g.*, SULLIVAN, *supra* note 88, at 64 ("[T]he only purpose for defining a market is to organize available data in a way which facilitates judgment about the extent of that power."); Fisher, *supra* note 147, at 130 ("Market definition can be a useful tool, a way to begin organizing the material that must be studied.").

This contextualizing role is particularly clear in coordinated effects analysis, where markets defined by the HMT set the stage for a long list of considerations including evidence that entry or repositioning will alleviate market power concerns, evidence of imminent business failure absent a merger, and evidence of efficiencies that might offset incentives to exercise market power gained through a merger.[168] HMT markets also help to identify evidence like market stability or a history of collusion that can be economically informative about the possibility of future coordination.[169] The contextualizing role of market definition was recognized in even the earliest articulations of the HMT.[170] This is unsurprising. By its terms, the HMT identifies a scope of trade in which coordinated market power *could* be exercised; only further analysis and study can possibly say whether coordinated market power *would* be exercised.[171]

A similar contextualizing function is clear in the market definition tests of the 1960s, albeit for different theories of harm. *Brown Shoe* made exactly this point in stating that, while evidence of market structure was important, "only a further examination of the particular market—its structure, history and probable future—can provide the appropriate setting for judging the probable anticompetitive effect of the merger."[172] Some of the cases of that era admittedly undertook this further examination on a less than neutral basis.[173] But in both logic and effect, assessment of the concentration and protectionist concerns of the 1960s required inquiry into details of past and

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[168] *See* 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 89, §§5–6, 9, 11, 10 (discussing each of these inquiries, respectively).

[169] Edward J. Green & Robert H. Porter, *Noncooperative Collusion under Imperfect Price Information*, 52 ECONOMETRICA 87, 90–91 (1984) (relating various aspects of competitive structure to the feasibility of self-enforcing collusion); Subhasish M. Chowdhury & Carsten J. Crede, *Post-Cartel Tacit Collusion: Determinants, Consequences, and Prevention*, 70 INT'L J. OF INDUS. ORG., May 2020, at 1 (discussing experimental evidence of post-collusion coordination among competitors).

[170] *See* Areeda, *supra* note 72, at 309 (commenting that market structure inferences "do not purport to be determinative" and so must be considered alongside a exhaustive list of additional "matters affecting the ease of tacit price coordination").

[171] *See* Ordover & Willig, *supra* note 82, at 552 (noting that a "remaining question [post-HMT] is whether the merger would significantly facilitate such cartellike coordination").

[172] Brown Shoe Co. v. United States, 370 U.S. 294, 322 n.38 (1962); *see also* Board of Trade v. United States, 246 U.S. 231, 238 (1918) (prescribing a holistic set of factors to be considered in applying the rule of reason to particular cases).

[173] *Cf.* United States v. Von's Grocery Co., 384 U.S. 270, 301 (1966) (Stewart, J., dissenting) (complaining that "[t]he sole consistency that I can find [in recent decisions] is that in litigation under s 7, the Government always wins.").

likely future competition, and the appropriate context for this inquiry was supplied by the market definition processes of the time.[174]

Finally, a contextualizing function is also performed by unilateral effects analysis. Detailed discussion is again deferred to Part III, but it suffices to note that the mere prediction of enhanced market power in unilateral effects analysis is rarely dispositive. The accuracy of model predictions depends on many assumptions about past and future competition.[175] Assessment of these assumptions is focused and contextualized by the scope of predicted market power in unilateral effects models.[176] The only surprising thing about this observation is that these models are not today recognized as serving the contextualizing function of market definition.

B. The Future of Market Definition

Up to this point, this Article has been mainly historical review. While it is interesting and helpful to consider different market definition processes in their historic context, the most useful lessons are not for understanding the past but for shaping the future. The goals and focuses of antitrust shifted tectonically over the sixty-year period reviewed in the previous pages, and every indication is that they will continue to change in future years.[177] It is therefore not enough to understand past market definition, or even to correct the deficiencies of current practice. For market definition to remain consistently reliable and helpful in antitrust, it must be flexible enough to function appropriately across different policy agendas and applications.

The view of market definition surfaced in the previous pages promises this flexibility. Decoupling the process of market definition from its purpose lights a path to rationalize divergent processes of market definition and clarifies how they can all coexist within a uniform and sensible body of competition policy. This strategy also suggests a precedentially justified and economically sounds framework for conducting future market definition practice across all manner of applications.

[174] *E.g.*, United States v. Gen. Dynamics Corp., 415 U.S. 486, 501 (1974) (focusing on evidence of the likely future competitive significance of competitors in a relevant market).

[175] *See infra* notes 198-199 and accompanying text.

[176] *See infra* notes 216-217 and accompanying text.

[177] William E. Kovacic, *The Modern Evolution of U.S. Competition Policy Enforcement Norms*, 71 ANTITRUST L.J. 377, 400 (2003) ("Whatever the exact process of change, antitrust enforcement norms are certain to change over time. This flows inexorably from the inherently evolutionary character of competition policy. Whatever their specific institutional design, most competition systems share a basic characteristic that entails inevitable adjustments in policy over time." (internal footnote omitted)).

The key to the framework is to make the purpose of market definition the lodestar of the exercise. The appropriate market definition process in a given application follows from the purpose of the exercise in that context. The ambitions of this Article are bold enough without attempting to claim exhaustive enumeration of every necessary or sufficient purpose of market definition. The Article does, however, identify several historically important purposes that market definition has served across different applications and policy regimes: (1) identifying a scope of trade in which a given injury could occur, (2) connecting the structure of competition within this scope to the potential injury of concern, and (3) providing a context for further analysis of the potential injury.

A graceful approach to market definition would, at a minimum, accept as a relevant market the outcome of any process of market definition that served the purposes outlined above. This broad claim is unavoidably abstract, but the following discussion will help to make it concrete. Part III shows how modern unilateral effects analysis serves all the purposes of market definition identified in this Article and should therefore be accepted as a legally and economically sufficient process of defining relevant markets. Part IV identifies other concrete implications of this approach for market definition and broader antitrust practice.

III. Unwinding the "Alternatives" Narrative

Modern unilateral effects models are the posterchild for the narrative that economic theory may be used to replace and obviate market definition. The thesis of this article unwinds that narrative. It does not deny the often-helpful insights of these models; it simply rejects their supposed distinction from market definition. The following defends this claim. First, it shows that unilateral effects models perform all the purposes of market definition identified in Part II. Second, it discusses how the informational content of unilateral effects analysis is the same as that of other modern methods of market definition. The practical consequence is actually to increase the usefulness of unilateral effects analysis. As the appropriate market definition process for assessing the relevant potential injury, no unilateral effects theory should ever be rejected or modified on the basis of some other, less appropriate process of market definition.

A. The Conventional "Alternatives" Narrative

Before turning to the arguments, it may help to briefly summarize the "alternatives" narrative. In the context of mergers of competitors operating in a differentiated product space, economic theory supports a handful of models that purport to quantify one possible pricing consequence of a merger.[178] Intuitively, product differentiation—like luxury differences in automobiles or flavor and brand-image differences in tobacco products—can lead to situations in which pairs of competitors uniquely constrain each other's market power with respect to certain customers. Before a merger, each of the competitors might refrain from attempting to raise prices because they recognize that doing so will drive these customers to the other's substitute products. If the competitors merge, this constraint evaporates, and the resulting firm may have a unilateral incentive to raise prices. This price elevation incentive is stronger the more customers will either accept the higher post-merger prices or else switch to another product sold by the now-merged firm.

Unilateral effects models try to quantify this price elevation incentive. Merger simulation models offer quantitative predictions of price changes on the basis of exacting assumptions about the competitive process. Among the necessary assumptions are characterizations of how competitors interact (usually modeled as a single price-setting decision without dynamic interactions), how customers make purchasing decisions (usually modeled as a specific parametric representation of a demand system), and how easily firms can sell more products (usually modeled as a specific form of cost function).[179] A related tool, a price pressure index, offers less detailed price predictions—only predicting the direction of a price change, not its size—on the basis of somewhat less exacting assumptions.[180] It is easy to overstate the differences between these approaches. Price pressure indexes still require detailed information on costs and customer preferences, and the underlying economic model of competition is similar in either case.[181]

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[178] *See generally* Margaret Slade, *Merger-Simulations of Unilateral Effects: What Can We Learn from the UK Brewing Industry?*, *in* CASES IN EUROPEAN COMPETITION POLICY: THE ECONOMIC ANALYSIS 312, 313-21(Bruce Lyons ed., 2009) (providing intuition and technical details); Gregory J. Werden & Luke M. Froeb, *Unilateral Effects of Horizontal Mergers*, in Handbook of Antitrust Economics 43 (Paolo Buccirossi, ed., 2008) (same); Gregory J. Werden, *Unilateral Competitive Effects of Horizontal Mergers I: Basic Concepts and Models*, *in* 2 ISSUES IN COMPETITION LAW AND POLICY 1319 (Wayne Dale Collins, ed., 2008) (same); Kaplow & Shapiro, *supra* note 117, at 1179–80 (surveying important papers).

[179] *See* Werden, *supra* note 178, at 1330–33 (describing common parameters).

[180] *E.g.*, Farrell & Shapiro, *supra* note 124; *see also* Steven C. Salop & Serge Moresi, Updating the Merger Guidelines: Comments 18–24 (Nov. 9, 2009), https://www.ftc.gov/sites/default/files/documents/public_comments/horizontal-merger-guidelines-review-project-545095-00032/545095-00032.pdf.

[181] Roy J. Epstein & Daniel L. Rubinfeld, *Understanding UPP*, 10 B.E. J. THEORETICAL ECON., May 2010, art. 21, at 1, 2 (commenting that price indexes "rel[y] on the same analytical assumptions as conventional merger simulation"); *id.* at 4 ("The conclusions from

In the antitrust literature, these unilateral effects models have come to be referred to as offering "direct" evidence of the price effects of mergers. The term "direct" is meant to signal that market definition is not required.[182] A closely related convention is to call these models "alternatives" to market definition.[183] Under the alternatives narrative, reliance on direct evidence of market power obviates market definition.[184] The narrative thus suggests a distinction between either the purpose or effect of unilateral effects analysis and that of market definition.[185] Courts have at times drawn a related distinction: interpreting market definition as a distinct step in antitrust analysis which an antitrust plaintiff must perform even when asserting a unilateral effects theory of harm.[186] As such, parties advancing unilateral

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a [pricing pressure] analysis therefore essentially coincide with merger simulation."). *But see* Farrell & Shapiro, *supra* note 130, at 1–4 (arguing that differences between the UPP index and merger simulation models are more substantial).

[182] *E.g.*, Coate & Fisher, *supra* note 126, at 448 (commenting that analysts can "either define a market and complete the analysis within that market or directly estimate the likely anticompetitive effects . . . associated with the merger"); *see* Hovenkamp, *supra* note 39, at 907 (commenting that these models are "said to be 'direct' because they do not depend on the use of the crude surrogates for price effects that market definition and market concentration numbers provide").

[183] *E.g.*, Farrell & Shapiro, *supra* note 124, at 2–3 (describing their upward pricing pressure index as an "alternative" to market definition, but also observing that the methods have "much in common").

[184] *E.g.*, John B. Kirkwood, *Market Power and Antitrust Enforcement*, 98 B. U. L. REV. 1169, 1196 (2018) ("[A] court can predict the likelihood of a unilateral price increase from the 'upward pricing pressure' created by a merger and other data. In these cases . . . market definition is unnecessary."); Willig, *supra* note 108, at 300 ("On the face of it, this perspective appears to remove consideration of market shares from merger analysis since there are no obvious systematic relationships among market shares and cross-price derivatives of demand.").

[185] *See, e.g.*, John D. Harkrider, *A Return to Von's Grocery?*, ANTITRUST SOURCE 3, (Oct. 2010), https://www.americanbar.org/content/dam/aba/publishing/antitrust_source/Oct10_FullSource.pdf ("[T]he concept of "market" does not necessarily make sense in the context of unilateral effects."); *see also* Lemley & McKenna, *supra* note 125, at 2080 (observing that "even when products clearly vary in quality . . . the basic assumption in antitrust law is that the products produced by individual companies compete in a larger market of (mostly) like goods."); *supra* note 133 and accompanying text (suggesting a similar distinction).

[186] *See supra* note 137; *see also* F.T.C. v. Swedish Match, 131 F. Supp. 2d 151, 156–65 (D.D.C. 2000) (extensively discussing market definition distinct from unilateral effects analysis); F.T.C. v. Staples, Inc., 970 F. Supp. 1066, 1073–81 (D.D.C. 1997) (similar); *cf.* Hovenkamp & Shapiro, *supra* note 118, at 17 ("[I]n most cases, unilateral effects can be estimated without the need to define a relevant antitrust market, and the legal requirement that it be done does not assist in this analysis.").

effects claims are often obliged to include the definition of an HMT relevant market among their arguments,[187] even if the analysis never uses it.

B. Serving the Purposes of Market Definition

It is unprincipled and unhelpful to woodenly import the HMT into the differentiated-product unilateral effects analysis. A technical, but accurate, response to obstinate courts is that the price-increase predictions of unilateral effects models suffice to prove a relevant market, at least in HMT terms.[188] But a deeper and more informative response is to reject the assumed distinction between market definition and unilateral effects in the first place. Unilateral effects models serve the same purposes that other processes of market definition serve in other contexts.

1. Identifying the Scope of Potential Injury

The first historically important function of market definition is to identify a scope of trade within which a given type of competitive injury could occur.[189] Under modern policy goals, this means a scope of trade in which market power could be enhanced, entrenched, or exercised as a result of the challenged conduct.[190] Nothing about this purpose necessitates a broad or all-inclusive market.[191] The objective is no longer to identify recognizable industries or trade lines; the point is now to identify a scope of trade in which market power effects could be felt.[192] Unilateral effects models serve precisely this scoping function.

By construction, unilateral effects models for firms operating in a differentiated product space identify a scope of trade in which a merger

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[187] *See supra* note 138 and accompanying text.

[188] *See* Kaplow, *Why Ever*, *supra* note 24, at 509–10 (discussing a result-oriented approach to market definition as a means of addressing potential legal requirements).

[189] *See supra* notes 142–144 and accompanying text.

[190] *See* Carlton, *supra* note 127, at 5 ("[T]he goal of market definition is . . . to measure market power."); *cf.* 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 89, § 1 ¶ 5 (opposing mergers that "create, enhance, or entrench market power or [] facilitate its exercise").

[191] *Contra* Hicks v. PGA Tour, Inc., 165 F. Supp. 3d 898, 908 (N.D. Cal. 2016), aff'd in part, vacated in part, 897 F.3d 1109 (9th Cir. 2018) (asserting that a relevant market "must include all products for which there is 'reasonable interchangeability of use or . . . cross-elasticity of demand'" and that a proposed market " not encompass[ing] all interchangeable substitute products . . . is legally insufficient").

[192] FTC v. Indiana Fed'n of Dentists, 476 U.S. 447, 460 (1986) (stating that the point of market definition is to determine "whether an arrangement has the potential for genuine adverse effects on competition.").

might enable the unilateral exercise of market power.[193] Where these models predict a substantial unilateral price increase as a result of a merger of competitors, they have identified a set of competitors (the merging parties) that if united as a single firm (the result of the merger) would be predicted to implement a price increase (the predicted price effect).[194] Unilateral effects models need not always predict a net increase in price, but when they do they have identified a scope of trade in which this potential injury could arise—transparently serving this function of market definition.

2. Connecting Market Structure to Potential Injury

The second historically important purpose of market definition is to connect evidence of market structure to the potential injury of concern.[195] As used here, market structure contemplates more than market shares. It also encompasses the identities, capacities, capabilities, and incentives of the competitors and trading partners that might facilitate or prevent a potential injury from occurring.[196] Unilateral effects analysis serves precisely this structure-to-effect mapping function.

The function is definitional. A unilateral effects model that predicts a price increase definitionally identifies structural separation between the merging parties as the key competitive constraint preventing the exercise of that market power. Unilateral effects analysis also identifies the trading partners and competitors of significance in enabling or potentially constraining the exercises of unilateral market power. The trading partners of significance are those that are captive to the merging firms, at least for the predicted price effect. The other competitors of significance are those that would plausibly create or reposition products in response to a unilateral exercise of market power by the merged firm.[197]

Where unilateral effects models are described as providing "direct" inferences about market power, as opposed to indirect inferences based on market structure, the distinction is largely semantic. Rather than reflecting

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[193] *See supra* notes 178–181 (describing unilateral-effects price predictions).

[194] *Cf. supra* notes 89–90 and accompanying text (describing the HMT); Farrell & Shapiro, *supra* note 124, at 29 (commenting that "market definition under the Guidelines is closely related to the simulation of a hypothetical merger to monopoly").

[195] *See supra* notes 156–158.

[196] *See* Cameron, Glick, & Mangum, *supra* note 122, at 726 ("When evaluating alleged anticompetitive behavior, we first want to know the impact of that behavior on the firms that constrain the defendant's market conduct. The market definition exercise identifies what products and firms are important constraints.").

[197] *Cf.* Coate & Fischer, *supra* note 126, at 433 (suggesting that market structure analysis, entry analysis, and repositioning considerations all address common concerns).

market structure in market shares, unilateral effects analysis bakes structural considerations—such as the structural separation of the merging parties, their product-space proximity, and their price elevation incentives—into formal assumptions about the demand and cost systems.[198] Unless these assumptions accurately represent the actual structure of competition, the model's predictions are unreliable descriptions of the real world.[199] Looked at this way, it is difficult to see how unilateral effects analysis does much *except* to connect market structure to the potential injury of concern.

3. Contextualizing Further Analysis of Potential Injury

The third historically important purpose of market definition is to provide a context for further analysis of the potential injury.[200] The HMT, for example, identifies a scope of trade in which coordinated exercises of market power are possible, but where competitive dynamics, potential entry, potential efficiencies, and other considerations may need to be considered in order to fully evaluate the likelihood of that injury.[201] Once again, unilateral effects analysis serve the same purpose.

The importance of accounting for both potential entry and efficiencies in unilateral effects analysis is well addressed in the literature. Unilateral effects models differ in how they account for, or do not account for,[202] the responses of other firms to an exercise of unilateral market power. But this matter, and also considerations of potential repositioning and entry, must

[198] Philip Crooke, Luke Froeb, Steven Tschantz, & Gregory J. Werden, *Effects of Assumed Demand Form on Simulated Postmerger Equilibria*, 15 REV. INDUS. ORGAN. 205, 206–08 (1999) (observing how demand curvature can substantially affect model predictions); Luke Froeb, Steven Tschantz, & Gregory J. Werden, *Pass-Through Rates and the Price Effects of Mergers*, 23 INT'L J. INDUS. ORG. 703, 710–11 (2005) (similar); Slade, *supra* note 178, at 331–338 (illustrating the sensitivity of costs, demand systems, and unilateral effects predictions to various possible modeling assumptions).

[199] Epstein & Rubinfeld, *supra* note 181, at 8 (observing that "the accuracy and reliability of the [a price index model]depends crucially on the accuracy of the diversion ratio [parameter]"); Gregory J Werden & Luke M Froeb, *Choosing Among Tools for Assessing Unilateral Merger Effects*, 7 EUR. COMPETITION J. 155, 158 (2011) (noting that model predictions are valid "only if the model actually captures the essence of competition in a particular industry, and only if the merger itself does not fundamentally change how competitors interact").

[200] *See supra* notes 166–167 and accompanying text.

[201] *See supra* notes 168–171.

[202] *See* Epstein & Rubinfeld, *supra* note 181, at 3 (commenting that "the UPP framework does not take allow [sic] for possible entry of new competitors when postulating a post-merger price increase. Nor does it allow for possible product repositioning by existing competitors in response to higher post-merger prices.").

always be addressed at some point in the analysis.[203] Possible efficiencies are likewise an important consideration,[204] as are various other matters. The scope of trade in which these matters must be assessed is that in which the exercise of unilateral market power is predicted to occur.[205]

What this means is that—just like market definition under the HMT in coordinated effects analysis—the prediction of price increases in unilateral effects analysis is really just a contextualizing step in full analysis of the potential injury.[206] As in all other examples of market definition, further study is required to decide whether the potential injury will actually materialize within this scope of trade.[207] And just as processes like the HMT indicate the appropriate context for that further study, so too do unilateral effects models.

C. Conveying the Information of Market Definition

Even if unilateral effects analysis does serve all the historically important purposes of market definition, one might still question whether that makes it the same as market definition. Perhaps the greater accuracy of unilateral effects analysis distinguishes it from the qualitative market power inferences supported by market definition processes like the HMT. Here again, apparent distinctions are superficial. Beyond serving the same purposes, both approaches rely on the same evidence and both approaches support the same inferences. Apparent differences in accuracy or effect mislead.

In terms of evidence, unilateral effects analysis and market definition under the HMT both rely on the same types of data: the same variables

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[203] *See* Hovenkamp, *supra* note 39, at 912 (describing unilateral effects analysis as a two-stage inquiry, with the second stage accounting for "the likelihood and effect of the responses that nonmerging firms are likely to make").

[204] This is particularly true when untested efficiency credits are baked into the unilateral effects analysis. *Cf.* Farrell & Shapiro, *supra* note 124 (discussing the inclusion of a "default efficiency parameter" or assumed "efficiency credit," at least in early-stage analysis).

[205] *Cf.* Crane, *supra* note 26, at 48 (questioning how entry can be assessed "in a 'direct' market power analysis since entry barriers require identification of a market into which entry is difficult."); Werden, *Answer*, *supra* note 122 at 729 ("Even if antitrust analysis never used market shares, the relevant market would remain essential for examining entry prospects and the durability of market power.").

[206] *See supra* note 203; Coate & Simons, *supra* note 122, at 681 (commenting that "the more recent Guidelines seemed to recognize that a simple merger simulation is not sufficient to evaluate the likely effect of a merger").

[207] *See, e.g.*, Shapiro, *supra* note 138, at 26 ("[T]he Agencies understand full well that measuring upward pricing pressure, or even performing a full merger simulation, typically is not the end of the story, especially in rapidly changing industries. Repositioning, entry, innovation, and efficiencies must also be considered.").

appear in either model.[208] In an ideal world, both would be implemented on the basis of large amounts of pristine data.[209] In the real world, both fall back on qualitative inference with similar regularity.[210] Carlton has made this very observation in the terminology of the alternatives narrative: "a merger simulation . . . where one uses the demand system combined with various assumptions of the competitive game . . . and perhaps cost . . . requires no market definition, but utilizes all the same information required to define a market."[211] Equivalence of informational inputs would seem good reason to question the supposed distinction.

The reason for question is especially strong where market shares in an HMT market are used to parameterize unilateral effects models.[212] There are serious theoretical limitations to this approach,[213] and it is typically used only when data scarcity and time constraints frustrate efforts to construct more plausible models. But data scarcity and time constraints are common in merger enforcement,[214] and when unilateral effects analysis is conducted on the basis of an HMT relevant market, it strains credulity to claim any fundamental difference between one process and the other.[215]

Finally, in terms of inferences supported, unilateral effects analysis again parallels market definition under the HMT. Unilateral effects models

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[208] *See* Farrell & Shapiro, *supra* note 124, (noting that technical specifications of the HMT "incorporate[] the same variables as [a unilateral price index model]").

[209] *Cf.* Harris & Simons, *supra* note 87 (suggesting a "critical loss" methodology for quantifying the HMT); Michael L. Katz and Carl Shapiro, *Critical Loss: Let's Tell the Whole Story*, ANTITRUST, Spring 2003, at 49 (relating critical loss analysis to the diversion ratio evidence upon which unilateral effects analysis often turns).

[210] *Cf.* Farrell & Shapiro, *supra* note 130, at 5 (commenting that "historical or documentary evidence from win/loss reports, discount approval processes, or customer switching patterns, can be highly informative about the diversion ratio"); Areeda, *supra* note 71, at 303 (critiquing even the HMT as "frequently call[ing] for information that is not available and for conclusions that are not knowable").

[211] Carlton, *supra* note 127, at 15.

[212] *See* Willig, *supra* note 108, at 299-305 (explaining this approach).

[213] *See* Jerry Hausman, *2010 Merger Guidelines: Empirical Analysis*, ANTITRUST SOURCE 1 (Oct. 2010), https://www.americanbar.org/content/dam/aba/publishing/antitrust_source/Oct10_FullSource.pdf. (noting that share-based diversion requires the IIA property, which is "unrealistic in many situations"); Willig, *supra* note 108, at 301 (commenting that the assumptions needed to justify parameterization in terms of market shares "are unlikely to be valid in many areas of application").

[214] *See* Shapiro, *supra* note 118, at 70 ("DOJ often uses market shares to assess diversion, and higher shares in a properly defined relevant market do generally go along with elevated concern about unilateral price effects.").

[215] *Cf.* Coate & Fischer, *supra* note 126, at 445 n.61 (commenting that unilateral effects models "cannot be considered a direct method of merger analysis" when parameterized in terms of shares of a HMT relevant market).

certainly appear more precise than things like the coordination prediction drawn from market structure inferences in an HMT market. The former often ends in a quantitative statement; the latter does not. But the literal accuracy of unilateral effects predictions is limited to the toy models of competition they assume—models that cannot describe the real world with much frequency.[216] Indeed, the predictions of these models are rarely validated when tested in empirical research.[217]

This lack of validation does not prevent unilateral effects models from providing compelling evidence of potential market power implications. Qualitatively similar predictions across different specifications of a model can bolster confidence in the approximate accuracy of these predictions. The supposed accuracy advantage of unilateral effects over other modern processes of market definition does not, however, withstand inspection. Both approaches provide potentially helpful, but ultimately qualitative, statements about market power.

D. The Proposed Market Definition Narrative

None of this impugns the usefulness of unilateral effects analysis in merger enforcement. For purposes of assessing the potential unilateral

[216] *See* Cameron, Glick, & Mangum, *supra* note 122, at 734 ("[O]ne should not confuse the apparent precision of these models that operate in the restrictive-assumptions world of economic modeling with a tool that will generate accurate and reliable measures of market power when applied in the complexity of the real world."); Franklin M. Fisher, *Games Economists Play: A Noncooperative View*, 20 RAND J. ECON. 113, 115 (1989) (describing the willingness of "distinguished academics" to testify "in antitrust cases that one should analyze real markets by using [similar stylized models of competition]" as "theory run riot").

[217] *See* Craig Peters, *Evaluating the Performance of Merger Simulation: Evidence from the U.S. Airline Industry*, 49 J. L. & ECON. 627, 627 (2006) (reporting that "standard simulation methods, which measure the effect of the change in ownership on unilateral pricing incentives, do not generally provide an accurate forecast"); Carlton & Israel, *supra* note 134, at 4 ("[T]here is only weak empirical evidence establishing the usefulness of merger simulation as a tool to predict anticompetitive mergers."); *see generally* Jonas Björnerstedt & Frank Verboven, *Does Merger Simulation Work? Evidence from the Swedish Analgesics Market*, 8 AM. ECON. J. 125 (2016) (reporting some successes, but also several respects in which merger simulation failed to adequately explain the apparent price and share effects of an observed merger); Lars Mathiesen, Øivind Anti Nilsen, & Lars Sørgard, *A Note on Upward Pricing Pressure: The Possibility of False Positives*, 8 J. COMP. L. & ECON. 881 (2012) (illustrating false positives in UPP analysis); Matthew C. Weinberg, *More Evidence on the Performance of Merger Simulations*, 101 AM. ECON. REV., May 2011, at 51 (reporting a retrospective study in which merger simulations substantially underpredicted the actual estimated price effects of a merger); *see also* Douglas D. Davis & Bart J. Wilson, *Differentiated Product Competition and the Antitrust Logit Model: An Experimental Analysis*, J. ECON. BEHAV. & ORG. 89, 91 (2005) (describing uninspiring experimental results.).

exercise of market power following a merger, these models bring the best of economics to bear on the substantive antitrust issues at hand. But that does not make unilateral effects analysis different from, or an alternative to, market definition in anything but a semantic sense. Looked at from every angle, unilateral effects analysis is a process of market definition appropriate to assessing one specific type of market power concern.[218]

This is a freeing observation. When assessing the potential for unilateral market power to be exercised following a merger of competitors in a differentiated product space, unilateral effects models indicating significant price effects define a relevant market around the products of the merging firms. This is a complete and appropriate relevant market for purposes of assessing this particular concern. Insisting on the additional delineation of an HMT relevant market, when unilateral effects analysis already identifies a relevant market better suited to assessing the potential injury of concern,[219] frustrates the purpose of market definition in service of nothing but fealty to a particular process of market definition designed for a different setting. The same goes for concerns that the relevant markets of unilateral effects models are in some way "too narrow" to be helpful in antitrust litigation.[220] Unless the claim is really that the model's predictions are inaccurate, predictions identifying a scope of trade in which unilateral market power could be exercised serve the purpose of market definition better than any other process for assessing this concern. Substantial injury in a narrow scope of trade is substantial injury nonetheless.

The view of market definition advanced in this Article shows that why it is both natural and clarifying to include unilateral effects models among the ranks of other market definition processes. Letting the process of market definition vary from one context to another brings constancy and coherence to antitrust law. The following Part discusses the broader implications that this observation holds for antitrust practice.

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[218] Even advocates of the alternatives narrative would likely accept this point. *See, e.g.*, Farrell & Shapiro, *supra* note 124, at 2 ("While our approach offers an alternative to [traditional market definition], they have much in common . . .").

[219] *See, e.g.*, Keyte & Schwartz 2012 at 599 (commenting on the "troubling inference" that the antitrust agencies may "use market definition against merging parties when it favors the Agencies, but may rely on a UPP screen (or other tools) . . . when it does not"). *But see Comments and Discussion*, 1991 BROOKINGS PAPERS ON ECON. ACTIVITY: MICROECONOMICS 313, 318 (comment by Steven C. Salop explaining that unilateral effects analysis "does not begin with the [HMT]" because in assessing this potential injury "there is no pricing coordination to use as a starting point").

[220] *See* Katz & Shapiro, *supra* note 209 (similarly dismissing concerns that market-power based markets may appear "too narrow" to some observers).

IV. Implications for Antitrust Practice

The strategy of this Article has been to separate the purpose of market definition from its process, and to show that historic inconsistencies in the process of market definition can be reconciled and rationalized as working to serve consistent purposes across different applications. The thesis of this Article is that this is the right way to understand market definition, and also the right way to conduct it.

What follows are several concrete implications of this thesis. First, the proposed view of market definition suggests the need to localize precedent in market definition. Judges and advocates need not reinvent the wheel in every case, but neither should they expect to rely on the same familiar market definition process in every setting. Different types of antitrust concern warrant different processes for defining the relevant market. Second, the proposed view of market definition recommends localized reliance on market structure inferences. While high concentration in a relevant market may signal reason for concern, low concentration in one relevant market does not generally foreclose the possibility of injury in another relevant market. Among other things, this means that safe harbors with more than localized effect are unsound and should be avoided.

A. Localized Market Definition Precedent

The first set of concrete implications for antitrust practice concerns the selection of market definition processes. Opinions today do not carefully distinguish between contexts when delineating relevant markets. A common practice is to recite several alternative processes as apparently parallel authority for defining a market.[221] Jury instructions are similarly misguided, typically seeming to favor processes more for their familiarity than for any particular connection to the actual issues in a case.[222]

The thesis of this Article refutes the notion that the same set of market definition processes should be applied in every setting. To be reliably

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[221] *E.g.*, McWane, Inc. v. F.T.C., 783 F.3d 814, 828–30 (11th Cir. 2015) (citing a variety of different market definition processes as the standard by which the relevant market would be defined); United States v. H & R Block, Inc., 833 F. Supp. 2d 36, 50–71 (D.D.C. 2011) (same); F.T.C. v. Lundbeck, Inc., No. CIV. 08-6379 JNE/JJG, 2010 WL 3810015, at *19–21 (D. Minn. Aug. 31, 2010), aff'd, 650 F.3d 1236 (8th Cir. 2011) (same).

[222] *See, e.g.*, 3A KEVIN F. O'MALLEY, JAY E. GRENIG & WILLIAM C. LEE, FEDERAL JURY PRACTICE & INSTRUCTIONS § 150:66 (6th ed. 2012) (proposing model instructions in which jurors are told that "in determining the product market, the basic idea is that the products within it are interchangeable as a practical matter from the buyer's point of view. . . . What you are being asked to do is to decide which products compete with each other.").

helpful, the process of market definition must suit the application. Appeals to precedent should therefore be localized to particular offenses and concerns. This is simpler and more administrable than it sounds.

Localizing market definition means adopting market definition processes at the level of particular concerns. The HMT, for example, was designed to address coordinated effects and potential collusion.[223] For purposes of assessing whether a merger may lead to tacit collusion, something like the HMT is the appropriate market definition process. Where market definition is to be used in a concerted action context, something like the HMT is again appropriate.[224] For addressing unilateral effects in horizontal mergers in a differentiated product space, on the other hand, the HMT will generally be inferior to unilateral effects models as a method of delineating the relevant market.[225] In this context, the predictions of unilateral effects models will usually be a superior process of market definition. In assessing the exclusionary conduct of a monopolist, yet other market definition processes may be appropriate.[226] Within each type of concern, precedent may expediently dictate the process of market definition; only cross-category appeals to precedent are questionable. Several comments follow naturally from this suggestion.

First, it should be noted that this approach does not deny the usefulness of any process of market definition as an abstract matter, but simply directs that each process should be limited to its appropriate range of applications. Individual processes of market definition are not globally good or bad, but only appropriate or inappropriate in a given application. *Brown Shoe*'s practical indicia test vividly illustrates this point.

The practical indicia test was designed for the strongly structural and protectionist concerns of the 1960s.[227] It is next to useless for modern market power concerns. The few factors with any serious connection to market power already inform the HMT; the other factors, and the test itself, only confuse matters. To reiterate: *Brown Shoe*'s practical indicia test is not an appropriate process of market definition for addressing modern market power concerns and should not be used today.

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[223] *See supra* notes 99–102 and accompanying text.

[224] Where market definition is deemed appropriate, something like the HMT is suited to the job. Allegations of ongoing collusion may, however, require modifications to the HMT process. *See* Glasner & Sullivan, *supra* note 12, at 26–34 (discussing the modification of HMT markets to fit the specific theory of harm in a given application).

[225] *See supra* notes 218–220 and accompanying text.

[226] *See supra* note 104.

[227] *See supra* notes 60–67 and accompanying text.

That does not render it obsolete. Antitrust is always changing. At the time of writing, there is a resurgence in support for enforcement objectives concerned with things like bigness per se and the political influence of large companies.[228] Should antitrust return to protectionist or strongly structural objectives, the *Brown Shoe* practical indicia test will again be needed. The HMT and other market-power based processes of market definition are every bit as ill-suited to addressing these populist concerns as the *Brown Shoe* factors are to addressing modern market power concerns.[229]

Second, it should be understood that while this approach to market definition diverges from current antitrust practice, it does not necessarily diverge from market definition precedent. The Supreme Court has never purported to exhaust the ways that a court may define a market.[230] On the contrary, its opinions suggest that the functional purpose of identifying potential harm is the lodestar of the exercise.[231] Uncritical obeisance to the market definition processes of the 1960s fails to accord this functional purpose proper weight. Faithful adherence to precedent may dictate the use of 1960s market definition processes for the concerns of the time, but it also dictates the use of modern market definition processes for the market power

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[228] *See, e.g.*, TIM WU, THE CURSE OF BIGNESS: ANTITRUST IN THE NEW GILDED AGE 127–39 (2018) (suggesting expansive antitrust reforms); Lina M. Khan, Note, *Amazon's Antitrust Paradox*, 126 YALE L.J. 710, 802–05 (2017) (arguing for an expansion of antitrust norms beyond the consumer welfare standard); Senator Elizabeth Warren, Reigniting Competition in the American Economy, Keynote Remarks at New America's Open Markets Program Event (June 29, 2016), https://www.warren.senate.gov/files/documents/2016-6-29_Warren_Antitrust_Speech.pdf; *cf.* Joshua D. Wright, Elyse Dorsey, Jonathan Klick & Jan M. Rybnicek, *Requiem For A Paradox: The Dubious Rise and Inevitable Fall of Hipster Antitrust*, 51 ARIZ. ST. L.J. 293 (2019) (surveying and critiquing recent populist arguments).

[229] It is frequently noted that the HMT may delineate relevant markets narrower than a lay person might expect. *E.g.*, Evans, *supra* note 123, at 82 ("When firms have relatively high price-cost margins the SSNIP test will often find markets that 'seem' quite narrow."). The apparent narrowness of these markets is irrelevant for purposes of assessing market power. *See* Dennis W. Carlton, *Revising the Horizontal Merger Guidelines*, 6 J. COMP. L. & ECON. 628-29 (2010). The tendency to delineate narrow relevant markets is, however, a serious obstacle to using the HMT in assessing populist antitrust objectives.

[230] *Cf.* Brown Shoe Co. v. United States, 370 U.S. 294, 320–21 (1962) ("Congress neither adopted nor rejected specifically any particular tests for measuring the relevant markets . . . within which the anti-competitive effects of a merger were to be judged.").

[231] *See* F.T.C. v. Indiana Fed'n of Dentists, 476 U.S. 447, 460–61 (1986) ("Since the purpose of . . . market definition and market power is to determine whether an arrangement has the potential for genuine adverse effects on competition, proof of actual detrimental effects . . . can obviate the need for an inquiry into market power . . . ." (internal quotation marks omitted)); *see also* Eastman Kodak Co. v. Image Tech. Servs., Inc., 504 U.S. 451, 467–79 (1992) (adopting a similarly functional approach to matters of market delineation).

concerns currently sought to be addressed by antitrust law. Again, it is the purpose of market definition that drives the bus.

Third, while the approach to market definition suggested in this Article may seem like adding yet another step to the overcomplicated framework of rule of reason analysis, on net it seems likely to streamline this analysis. Remember that the current approach to market definition—mechanical recitation of an often-irreconcilable tangle of conflicting processes—is not costless. The confusion and errors that trace to its false simplicity are the very problems that this Article seeks to address. The proposed approach requires a small investment on the front-end: selecting appropriate market definition processes from among the available options. But if that investment succeeds in achieving more predictable market definition standards and more reliably helpful relevant market concepts, the benefits will have been well worth the effort.

B. Localized Market Structure Inferences

A second set of concrete implications for antitrust practice concerns the scope at which market structure inferences should be drawn. Emboldened by the belief that all process of market definition lead to the same result, current thinking generalizes market structure inferences beyond the bounds of a particular concern. This manifests in two themes. The first is the idea that market structure is only a weak predictor of competitive effects. The second is the idea that market structure screens may be used to identify safe harbors of presumptive legality in things like merger review. Both concepts reflect an overboard use of market structure inferences.

The problem with the first theme is easy to state and easier to address. It is now frequently said that market structure and market concentration are at best weak predictors of anticompetitive effects.[232] This may be correct. It is undoubtedly true that many considerations beyond market structure feature in rule of reason analysis. But to the extent that these claims characterize empirical studies as showing weak correlation between market performance

[232] *E.g.*, Carlton, *supra* note 127, at 4 ("Unfortunately, there is only a weak link between change in market share and change in competitive performance, and that is why market definition and the use of market shares are very crude tools of analysis"); Garza, *Market Definition, the New Horizontal Merger Guidelines, and the Long March Away from Structural Presumptions*, ANTITRUST SOURCE, October 2010, 1, 5 ("[T]here is no apparent empirical basis establishing [market concentration's] predictive reliability in general or with respect to specific industries."); Hovenkamp, *supra* note 39, at 904 ("Increases in HHI correlate with price increases only in the grossest sense."); *id.* at 906 ("At best a poor correlation exists between concentration, changes in concentration in a defined market, and price increases from Cournot oligopoly or more explicit forms of collusion.").

and market concentration as a global matter, they overflow the proper scope of market structure inferences and potentially mislead competition policy.

Market structure inferences should be limited to the scope of a market definition process. An empirical study that estimates the relationship between concentration in census-defined industries and prices in those industries, does not necessarily say anything about the relationship between concentration in HMT markets and market power in those markets.[233] Similarly, an empirical study that estimates the relationship between concentration in HMT markets and market power in those market does not necessarily say anything about the relationship between market concentration in unilateral effects markets and market power in those markets.[234] Intuitively, the policy relevance of market structure differs across antitrust concerns, and therefore differs across associated market definition processes. It is potentially misleading to characterize average relationships between market structure and competitive effects across the scopes of different market definition processes.

The problem with the second theme relates to the first. For decades, the U.S. merger guidelines have endorsed the idea that mergers are typically legal if they do not result in significant increases in concentration or highly concentrated markets.[235] The markets to which these concentration tests apply are those defined by the HMT.[236] The typical justification for this practice is the argument that significant market concentration is a necessary but not sufficient condition for anticompetitive effects to result from a merger of competitors.[237] Mergers not appearing to meet minimum market

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[233] *See* Carl Shapiro, *Antitrust in a Time of Populism*, 61 INT'L J. INDUS. ORG. 714, 722–28 (2018) (similarly cautioning against the conflation of industry concentration metrics and relevant-market concentration metrics).

[234] Retrospective studies, which compare predicted and observed effects within a given scope of concern, exemplify a proper localization of market structure inferences. *See, e.g.*, JOHN KWOKA, MERGERS, MERGER CONTROL, AND REMEDIES: A RETROSPECTIVE ANALYSIS OF U.S. POLICY (2015); Orley Ashenfelter et al., *Did Robert Bork Understate the Competitive Impact of Mergers? Evidence from Consummated Mergers*, 57 J.L. & ECON. S67 (2014).

[235] *See* 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 89, § 5.3 ¶7 ("Mergers involving an increase in the HHI of less than 100 points are unlikely to have adverse competitive effects and ordinarily require no further analysis. . . . Mergers resulting in unconcentrated markets are unlikely to have adverse competitive effects and ordinarily require no further analysis."); 1982 MERGER GUIDELINES, *supra* note 73, § III.A.1.a (similarly identifying mergers in unconcentrated markets as unlikely to be challenged).

[236] *See* 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 89, § 4; 1982 MERGER GUIDELINES, *supra* note 73, § II.

[237] *See* Cameron, Glick, & Mangum, *supra* note 122, at 720–21 ("High market shares do not necessarily indicate a market power issue, but are typically a necessary (but not sufficient) condition for market power.").

structure thresholds are seen as requiring no detailed investigation.[238] This approach is advocated as economizing on enforcement budgets and offering a degree of predictability to the business community.[239]

Methods of focusing attention on problematic merger are important and necessary but treating low market concentration in one relevant market as dispositive for an entire transaction is unprincipled and inappropriate. Evidence that a merger would significantly increase concentration in an already concentrated HMT relevant market would provide some basis for concern about anticompetitive coordination. And lack of concentration in an HMT relevant market likewise eases concern about coordination in that market. But neither of these inferences generalizes to other anticompetitive concerns. A merger may certainly have the potential to lead to unilateral market power without plausibly creating a risk of coordinated pricing.[240] To condition willingness to explore one competitive concern on the plausibility of an entirely different concern is simply misguided.[241]

The solution is again to limit market structure inferences to the scope of a given relevant market. Quasi-safe harbors based on market structure may be a principled way of screening out individual competitive concerns. They are not a principled way to screen across concerns.[242] This may not offer the economy or predictability that practitioners hope to achieve through safe harbor provisions.[243] But to the extent that those aspirations conflict with the substantive goals of antitrust law, it is clear which interest must give way.

[238] *Cf.* Fed. Trade Comm'n & U.S. Dep't of Justice, Hart-Scott-Rodino Annual Report 5–6 (FY 2019), https:// www.ftc.gov/system/files/documents/reports/federal-trade-commission-bureau-competition-department-justice-antitrust-division-hart-scott-rodino/p110014hsrannualreportfy2019_0.pdf (reporting that only about 2-3 percent of merger notifications were subject to requests for additional information and documentary material in recent years).

[239] John Kwoka, *The Structural Presumption and the Safe Harbor in Merger Review: False Positives or Unwarranted Concerns?*, 81 ANTITRUST L.J. 837, 844-45 (2017) (summarizing the history and policy goals of safe harbor provisions in merger analysis).

[240] *See* Shapiro, *supra* note 118, at 70 ("[A] merger combining two products that are close substitutes can lead to substantial unilateral price increases for those products even if their combined market share [of an HMT relevant market] is less than 35 percent.").

[241] *Cf. id.* at 68 (commenting that the 2010 Horizontal Merger Guidelines continue to use market structure thresholds to screen out mergers "unlikely to have adverse competitive effects"); *id.* at 69 ("DOJ continues to apply the HHI thresholds to all horizontal mergers.").

[242] Steven C. Salop, *The First Principles Approach to Antitrust, Kodak, and Antitrust at the Millennium*, 68 ANTITRUST L.J. 187, 191–98 (2000) (similarly critiquing of the idea that market definition acts as a preliminary "filter" for ruling out competitive effects).

[243] *See supra* note 239.

Conclusion

The objective of this Article has been to clarify how market definition fits within the broader framework of antitrust law. To that end, the Article has sought to correct the history of market definition—showing how it has followed different processes in different antitrust regimes.[244] It has also sought to clarify the current practice of market definition—showing how existing processes can be reconciled and rationalized as serving the same purposes in different contexts.[245] And it has sought to clarify how future market definition would be best performed in antitrust—identifying a flexible framework of market definition applicable across different settings and readily adaptable to future changes in antitrust policy.[246] Throughout this discussion, market definition has been shown to be more nuanced, graceful, and substantive than current thinking supposes.

The proposed approach to market definition promises concrete improvements for antitrust practice. There is no way to guarantee that it will entirely foreclose the type of judicial missteps highlighted at the start of the Article;[247] nothing could. But errors are inevitable when building without a plan, and the tangled and unprincipled mess of current market definition standards is as devoid of any plan or unifying framework as anything could be. In this regard, the graceful approach to market definition put forth in this Article offers something powerful and new: a rigorous and internally consistent reconstruction of this cornerstone of antitrust, that promises both reliability and resilience in future market definition practice.

[244] *See supra* Part I.
[245] *See supra* Part II.
[246] *See supra* Parts III–IV.
[247] *See supra* notes 4–9, 15–23 and accompanying text.