# THE LOGIC OF MARKET DEFINITION

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For more than a half century, antitrust trials have usually begun with the definition of a relevant market for the inquiry. Long experience has given this exercise an air of familiarity, but closer examination reveals market definition to be a confused undertaking. Decades ago, Robert Pitofsky remarked that "no aspect of antitrust enforcement has been handled nearly as badly as market definition."[1] The situation has not improved.[2] Despite its long tenure in antitrust analysis, and despite its crucial role in the outcome of many cases and investigations, the process of defining a relevant market remains frustratingly confused and uncertain.

Why do we define markets? How should we define them? One would think that such fundamental questions would be long settled. But the novelty of the

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[1] Robert Pitofsky, *New Definitions of Relevant Market and the Assault on Antitrust*, 90 COLUM. L. REV. 1805, 1807 (1990); *see also* Donald F. Turner, *The Role of the "Market Concept" in Antitrust Law*, 49 ANTITRUST L.J. 1145, 1150 (1980) ("Let me turn now to what some of the current problems are with market definition. I have to say at the outset that as a general matter this whole area is a bloody mess.").

[2] *See, e.g.*, Louis Kaplow, *Why (Ever) Define Markets?*, 124 HARV. L. REV. 437, 466 (2010) ("[T]here is no canonical, operational statement of the standard for determining what constitutes a relevant market and, a fortiori, no developed underlying rationalization for whatever the principle might be."); WILLIAM BLUMENTHAL, *Why Bother?: On Market Definition under the Merger Guidelines* 2 (Statement before the FTC/DOJ Merger Enforcement Workshop Washington, DC; February 17, 2004), www.justice.gov/sites/default/files/atr/legacy/2007/08/30/202600.pdf ("[T]he meaning of 'relevant market' today … probably is not understood by more than 500 people on the planet.").



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exercise, and the halting, inconsistent evolution of the process in the courts, has evaded concise solution. Even the term, *market definition*, is more ambiguous than it first appears. Does it refer to the identification of popularly recognized lines of commerce or products with similar characteristics? Does it refer to products with high enough cross-elasticity of demand? Does it refer to things like the Hypothetical Monopolist Test (HMT) and efforts to identify groups of producers with potential market power?[3] That today all of these are potential answers is as remarkable as it is unsettling.

With this article, we hope to cut through the ambiguity and confusion that continue to envelop market definition. Our goal is to trace the internal logic of the exercise, identifying common errors and showing how the logic of market definition can be relied upon to focus and guide the inquiry. Our argument is mainly concerned with *how* markets should be defined in antitrust, but pragmatism requires us to pause to consider *why* we should aim for proper market definition as well.

The need for pause is the sometimes-popular claim that market definition is unnecessary in antitrust law. While this argument is not new,[4] Louis Kaplow has recently advanced the thesis with a particularly pointed argument that (1) market definition serves no role except to produce market shares, (2) market shares are poor measures of market power, and (3) antitrust would be better served by ignoring market shares and instead trying to assess market power from estimates of residual-demand curves and the like.[5] This argument is not

[3] This list does not purport to exhaust the range of possibilities. *See, e.g.*, Mario Forni, *Using Stationarity Tests in Antitrust Market Definition*, 6 AM. L. & ECON. REV. 441 (2004) (defining markets based on price stationarity); George J. Stigler and Robert A. Sherwin, *The Extent of the Market*, 28 J. L. & ECON. 555 (1985) (defining markets based on empirical similarity of price movements); Ira Horowitz, *Market Definition in Antitrust Analysis: A Regression-Based Approach*, 48 S. ECON. J. 1 (1981) (defining markets based on price movements); Kenneth G. Elzinga & Thomas F. Hogarty, *The Problem of Geographical Market Delineation in Antimerger Suits*, 18 ANTITRUST BULL. 45 (1973) (defining markets based on consumer flow information).

[4] *E.g.*, Blumenthal, *supra* note 2, at 1 ("Worse than unnecessary, any effort formally to define markets [would be] unduly costly, time-consuming, and invasive, and it probably would [yield] less reliable outcomes than more streamlined techniques."); Frank H. Easterbrook, *Limits of Antitrust*, 63 TEX. L. REV. 1, 22 (1984) ("Market definition is just a tool in the investigation of market power; it is an output of antitrust inquiry rather than an input into decisions, and it should be avoided whenever possible."); *id.* ("An inquiry into power does not entail the definition of a 'market,' a subject that has bedeviled the law of mergers.").

[5] *See generally* Kaplow, *supra* note 2; Louis Kaplow, *Market Definition and the Merger Guidelines*, 39 REV. IND. ORGAN. 107 (2011) [hereinafter Kaplow 2011]; Louis Kaplow, *Market Definition Alchemy*, 57 ANTITRUST BULL. 915 (2012) [hereinafter Kaplow 2012]; Louis Kaplow, *Market Definition: Impossible and Counterproductive*, 79 ANTITR L.J. 361 (2013) [hereinafter Kaplow 2013].

without its strengths, and certainly there are cases in which the market definition exercise can be skipped without any adverse effect on the outcome of the investigation or trial.

But even if market definition is not necessary in every antitrust case,[6] we believe that courts and practitioners must still understand how to properly define and interpret relevant antitrust markets in practice. There are three reasons for this.

First, the claim that market definition can be entirely replaced by things like econometric estimates of residual demand curves is doubtful, to say the least.[7] It is difficult, for example, to imagine courts and practitioners analyzing ease of entry without a market concept—what exactly would firms be entering?[8] Similar difficulties beset efforts to assess the danger of anticompetitive coordination without some idea what firms are in the market.[9] And while estimates of residual-demand elasticity may often suffice to establish current or historic market power, they are not generally sufficient to predict future competitive effects—as needed, for example, in cases involving unconsummated mergers or prospective acts of exclusion.[10] In such situations, properly defined relevant markets further antitrust analysis.

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[6] *See infra* Part IV.A (discussing cases where market definition is not necessary).

[7] *See generally* Gregory Werden, *The Relevant Market: Possible and Productive*, ANTITRUST L.J. ONLINE (April, 2014) [hereinafter Werden 2014]; Gregory Werden, *Why (Ever) Define Markets? An Answer to Professor Kaplow*, 78 ANTITR L. J. 729 (2013) [hereinafter Werden 2013]; 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).

[8] *See, e.g.*, Werden 2013, *supra* note 7, 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."); Franklin M. Fisher, *Economic Analysis and "Bright-Line" Tests*, 4 J. COMPETITION L. & ECON. 129, 131 (2008) ("Ease of entry must also be considered, and one might reasonably say that such a consideration requires one to know what it is that is being entered."). *Cf.* Louis Kaplow & Carl Shapiro, *Antitrust*, in 2 HANDBOOK OF LAW AND ECONOMICS 1073, 1185-86 (A. Mitchell Polinsky & Steven Shavell eds., 2007) (suggesting some ways to analyze exclusionary conduct in terms of elasticities); Kaplow 2013, *supra* note 5, at 363 n.3 (suggesting that potential entry analysis is similar to exclusionary conduct analysis).

[9] *See, e.g.*, Herbert Hovenkamp & Carl Shapiro, *Horizontal Mergers, Market Structure, and Burdens of Proof*, 127 YALE L.J. 1996, 2000 (2018) ("In cases in which the government alleges coordinated effects, the role of market definition and concentration measures such as the HHI is much more fundamental."); Werden 2013, *supra* note 7, at 739 ("[Coordinated effects analysis] uses the relevant market to determine how many, and which, competitors most likely would be involved in the coordination.").

[10] *See, e.g.*, 2B, ANTITRUST LAW ¶ 531d (4th ed. 2014) (commenting that assessment of current market power is insufficient to address concerns about future market power); Phillip Areeda, *Market Definition and Horizontal Restraints*, 52 ANTITRUST L.J. 553, 555 (1983)

Second, regardless of the academic debate, courts have long relied on market definition in antitrust cases,[11] and the Supreme Court shows no indication that it will abandon this practice soon. In fact he Court has recently reaffirmed its view that "courts usually cannot properly apply the rule of reason without an accurate definition of the relevant market."[12] So long as binding precedent continues to expect the definition of relevant markets, lower courts and practitioners will need to understand the logic and proper execution of the market definition exercise.

Third, despite Kaplow's insistence that market definition serves no purpose other than to permit calculation of market shares,[13] others perceive it to play additional roles. At investigational stages—in the review of merger notifications, for example—market definition is meant to clarify analysis by imposing analytic discipline on investigators,[14] by providing a logical way to organize

("[Past] performance data cannot reveal unexercised power. ... Thus, performance data is not relevant for determining whether a new merger creates new power."); Gregory Werden, *Market Delineation and the Justice Department's Merger Guidelines*, 1983 DUKE L.J. 514, 515 (1983) ("[A]pplication of [Clayton Act § 7] requires predictions about the effects on competition of changes in market structure."). Kaplow's best effort to extend his approach to merger analysis rests on the assumption that the merger is between producers of a homogenous (undifferentiated) product. Kaplow (2013), *supra* note 5, at 370–71. Problematically for this approach, Kaplow fails to explain how courts and practictioners are supposed to identify a homogenous product—an inference that normally arises from market definition.

[11] *See, e.g.*, Fisher, *supra* note 8, at 130 ("Market definition has become a necessary part of every antitrust case, and there is no avoiding discussing it."); Jonathan Baker, *Market Definition: An Analytical Overview* 74 ANTITRUST L.J. 129, 129 (2007) ("Market definition is often the most critical step in evaluating market power and determining whether business conduct has or likely will have anticompetitive effects."); DENNIS W. CARLTON, *Comment on Department of Justice and Federal Trade Commission's Proposed Horizontal Merger Guidelines* 3 (June 4, 2010), *available upon request* ("Any suggestion that the courts should abandon the use of market definition when analyzing the competitive effects of mergers is unwise, as the failure to define markets would likely increase the number of erroneous decisions reached by courts.").

[12] Ohio v. Am. Express Co., No. 16-1454, 2018 WL 3096305, at *8 (U.S. June 25, 2018); *see also id.* ("Without a definition of [the] market there is no way to measure [the defendant's] ability to lessen or destroy competition.") (bracketed text in original).

[13] *E.g.*, Kaplow 2013, *supra* note 5, at 363 (claiming the only point of market definition is to "make market power inferences from market shares"); *id.* at n.3 (defending the prior claim with the statement that "I am skeptical that market definition is useful for other purposes…").

[14] *See, e.g.*, Dennis W. Carlton, *Revising the Horizontal Merger Guidelines*, 6 J. COMP. L. & ECON. 619, 626 (2010) ("The discipline of forcing decision-makers to have a reasonable market definition in mind … is likely to be valuable in constraining agencies and especially courts from making decisions based on arbitrary criteria.); ROBERT WILLIG, *Public Comments on the 2010 Draft Horizontal Merger Guidelines* 2 (2010), www.ftc.gov/sites/default/files/documents/public_comments/horizontal-merger-guidelines-review-project-proposed-new-horizontal-merger-guidelines-548050-00015/548050-00015.pdf ("The purpose behind a requirement of market definition … is the imperative for disciplined consideration of sources of competition beyond the parties' own products, along with the need to generate a consistent calibration of the strength of that additional competition."); Turner, *supra* note 1, at 1145 ("[One role of market definition

information,[15] by helping to screen out implausible theories,[16] and by focusing the scope of further competitive effects analysis.[17] At evidentiary stages—at trial or before the Agencies—market definition supports structural inferences about competitive effects;[18] provides context for relevant evidentiary considerations, such as the possibility of entry or exit;[19] and again provides a conceptual framework to guide and discipline analysis.[20] As we discuss later in this article, there may be differences in the role market definition plays within the agencies and the courts. Yet in both contexts, market definition is described similarly as a tool for identifying conduct and situations that raise concerns about anticompetitive injury, and that therefore require scrutiny.[21]

We agree with the consensus that market definition serves broad purposes, but we suspect that this breadth of use may actually be a source of confusion. The common platitudes only reinforce the problem. The Supreme Court does not mislead when it says that "the purpose of [market definition] is to determine whether an arrangement has the potential for genuine adverse effects on

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is] to provide some sort of rational economic basis for assessing the consequence of the particular kind of conduct that is involved in the antitrust case…").

[15] *See, e.g.*, Fisher, *supra* note 8, at 130 ("Market definition can be a useful tool, a way to begin organizing the material that must be studied."); LAWRENCE SULLIVAN, HANDBOOK OF THE LAW OF ANTITRUST 64 (1977) ("[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.").

[16] *See, e.g.*, Easterbrook, *supra* note 4, at 14–19.

[17] *See, e.g.*, Werden 2013, *supra* note 7, at 739 ("The relevant market furthers the analysis by separating the active forces of competition from forces properly treated as part of the background."); *accord* ROBERT TRIFFIN, MONOPOLISTIC COMPETITION AND GENERAL EQUILIBRIUM THEORY 85 (1962) ("[One purpose of defining a market in economic analysis is] that of delineating practical boundaries for any given inquiry, in order to narrow down to essentials the empirical points to be investigated.").

[18] *See, e.g.*, Hovenkamp & Shapiro, *supra* note 9 ("[E]conomic theory and a wide range of economic evidence support the conclusion that horizontal mergers that significantly increase market concentration are likely to lessen competition and harm consumers"); Sean P. Sullivan, *What Structural Presumption?: Reuniting Evidence and Economics on the Role of Market Concentration in Horizontal Merger Analysis*, 42 J. CORP. L. 101, 107–08, 123–27 (2016) (discussing the probative value of market concentration evidence in predicting the competitive effects of horizontal mergers).

[19] *See supra* notes 7–10 and accompanying text.

[20] *See, e.g.*, Carlton, *supra* note 14, at 637 ("[E]ven though market definition may be a crude tool to use, it does provide some structure to an antitrust analysis and its use likely prevents courts from making egregious errors.").

[21] *See, e.g.*, 2B AREEDA & HOVENKAMP, *supra* note 10, ¶ 531 ("Finding the relevant market and its structure is typically not a goal in itself but a mechanism for considering the plausibility of antitrust claims that the defendants' business conduct will create, enlarge, or prolong market power."); Christine A. Varney, *The 2010 Horizontal Merger Guidelines: Evolution, Not Revolution*, 77 ANTITRUST L.J. 651, 653 (2011) ("[Flexibility in market definition] flows from the purpose of defining markets—helping to assess a merger's potential to harm consumers.").

competition,"[22] but neither does it take anything off the table. One reason the logic of market definition remains obscure is that so little effort has ever been devoted to specifying what *should not* factor into the exercise.

This article aims to fill that void. Our objective is to clarify the logic of antitrust market definition, but our strategy is to illustrate this logic by way of exclusion. The explanation of what should factor into the analysis is hardened by the explanation of what should not. The following parts of this article are thus organized around three common fallacies of antitrust market definition.

The first is what we call the *natural market fallacy*: the mistaken belief that relevant markets should conform to intuition, convention, or observation. The reason that they should not is simply that there is no such thing as a market. Markets are analytical devices; they have no tangible presence or natural form. Implications of this fallacy include demonstration that old market definition standards are inappropriate in modern antitrust analysis, and clarification that claims of unrealistic or gerrymandered markets—simply because a proposed market does not conform to lay intuition or observation—are wholly without merit.

The second is what we call the *independent market fallacy*: the common misconception that relevant antitrust markets exist independent of a theory of harm. The reason that they do not is contained in the prior fallacy. As purely analytic devices, markets do not exist independent of a problem or inquiry, but are defined in terms of a problem or inquiry. Specifically, antitrust markets are defined in terms of specific theories of anticompetitive harm. Implications of this fallacy include the need to avoid thinking of market definition as logically distinct from the identification of theories of anticompetitive injury, and the need to customize market definition to every specific theory of harm. Enduring confusion around the base price in HMT markets,[23] and even the infamous *Cellophane* fallacy itself,[24] are mere illustrations of this broader error.[25]

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[22] FTC v. Indiana Fed'n of Dentists, 476 U.S. 447, 460 (1986).

[23] *Cf.* U.S. DEP'T OF JUSTICE & FED. TRADE COMM'N, 2010 HORIZONTAL MERGER GUIDELINES § 4.1.2, http://www.justice.gov/sites/default/files/atr/legacy/2010/08/19/hmg-2010.pdf [hereinafter 2010 MERGER GUIDELINES] (describing the typical baseline price against which the HMT markets are constructed in horizontal merger cases).

[24] *See, e.g.*, RICHARD POSNER, ANTITRUST LAW 150–51 (2d ed. 2001) (providing the modern textbook treatment of the *Cellophane* fallacy); George W. Stocking, *Economic Tests of Monopoly and the Concept of the Relevant Market*, 2 ANTITRUST BULL. 479 (1957) (providing perhaps the earliest clear articulation of the Court's error in the *Cellophane* case).

[25] Many aspects of this fallacy have been previously identified and articulated by Steve Salop. *See generally* Steven C. Salop, *The First Principles Approach to Antitrust, Kodak, and Antitrust at the Millennium*, 68 ANTITRUST L.J. 187 (2000). Our approach adds to Salop's first principles approach in two respects. First, we extend the argument by showing not just the desirability, but the logical *necessity* of defining markets by reference to specific theories of competitive injury.

The third is what we call the *single market fallacy*: the common expectation that an antitrust case should revolve around a single relevant market (or group of markets in the case of multiple products) that is common to all aspects of the case or investigation. The reason not is implicit in the prior fallacies. Since a relevant market can be defined only by reference to a specific theory of harm, and since there may often be multiple theories of harm implicated by a given fact pattern, there may often be multiple relevant markets that could fairly and helpfully be drawn in analyzing the competitive effects of the conduct in question. Implications of this fallacy include the need to specify potentially different relevant markets for every theory of harm and the need to deemphasize the role of the trial court in selecting the correct relevant market.

The remainder of this article explores each of these fallacies separately, and then together in a discussion sketching some corollary implications for antitrust practice. Many of our suggestions about market definition can be extracted—to varying degrees of precision—from the text of the 2010 Horizontal Merger Guidelines,[26] and from scattered remarks, asides, and footnotes throughout vast literature on market definition.[27] But the diffusion of insights through subtle implication and easily overlooked margin notes is an inefficient way to explain a concept as challenging as market definition. The enduring confusion that still surrounds this exercise suggests that there is benefit to be gained from further exposition.

## I. THE NATURAL MARKET FALLACY

The *natural market fallacy* is the mistaken belief that the boundaries of relevant markets should conform to lay intuition, conventional language, or factual observation. The reason not is that economic markets are not tangible objects; they are analytical concepts with no necessary correspondence to industry practices or popular conceptions of trade lines.

If this seems obvious, consider two themes that have long permeated the discussion of market definition. The first is idea that market definition should

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Second, we show how the theory-dependence of market definition ties into the comprehensive logic of the market definition exercise.

[26] *See generally* 2010 MERGER GUIDELINES, *supra* note 23.

[27] *See generally* Hovenkamp & Shapiro, *supra* note 9; Werden 2013*, supra* note 7; Baker, *supra* note 11; Gregory Werden, *The 1982 Merger Guidelines and the Ascent of the Hypothetical Monopolist Paradigm*, 71 ANTITRUST L.J. 253 (2003); Jonathan Baker, *Stepping Out In An Old Brown Shoe: In Qualified Praise Of Submarkets*, 68 ANTITRUST L.J. 203 (2000); SULLIVAN, *supra* note 15, at 41–74; TRIFFIN, *supra* note 17, at 78–96. Salop, *supra* note 25, discusses some of our points about the independent market fallacy in greater detail.

be structured to prevent courts and plaintiffs from specifying artificially narrow markets.[28] The second is the concern that courts may fail to identify the correct market for analysis.[29] Each suggests a similar conception of the underlying exercise. To say a market is *artificial* is to say it is not a *natural* market; to say a market is defined *incorrectly* is to presume that the market could have been defined *correctly*. Both notions reflect the influence of the natural market fallacy on market definition practice.[30]

We shall now trace the natural market fallacy through caselaw and academic commentary, showing how and why it hinders antitrust analysis. Though the mapping is admittedly crude, it will be helpful to distinguish two types of natural market concepts: those that define markets by the observable characteristics of products and producers, and those that define markets by observed substitutability. Both concepts are problematic. Markets are nothing but abstractions used to facilitate economic analysis of specific problems. Excluding possible abstractions because they do not match some imagined set of natural market boundaries can only hinder that analysis.

### A. NATURAL MARKETS DEFINED BY CHARACTERISTICS

Of the many ways that the Supreme Court has tried to articulate the standard for defining markets, the most obviously naturalistic are those that equate market definition with identifying observable product characteristics and lay recognition of industry lines. At a high level, this approach seeks to find characteristics of products and producers that indicate how a market should be

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[28] This concern has endured over a span of decades. *Compare* United States v. Manufacturers Hanover Tr. Co., 240 F. Supp. 867, 918 (S.D.N.Y. 1965) ("[T]he government cannot gerrymander the market any way it chooses.") *with* Smalley & Co. v. Emerson & Cuming, Inc., 808 F.Supp. 1503, 1512 (D.Colo.1992), aff'd, 13 F.3d 366 (10th Cir.1993) ("Plaintiff cannot artificially create antitrust claims by narrowly defining the market to create the appearance of an antitrust injury.") *and* United States v. Anthem, Inc., 236 F. Supp. 3d 171, 202 (D.D.C. 2017) (The defense contends that [the plaintiff's] proposed market is "gerrymander[ed]" and "lacks economic coherence.").

[29] *See, e.g.*, Herbert Hovenkamp, *Markets in Merger Analysis*, 50 ANTITRUST BULL. 887, 901 (2012) ("It is well known that the relevant market estimates … are never 'correct' in product differentiated markets or in those that have significant spatial dispersion and relatively high transportation costs."); M. A. Adelman, *The Antimerger Act, 1950-60*, 51 AM. ECON. REV. 236, 237 (1961) ("It is a pathetic illusion that the market is whatever the courts choose to call it. The market, like the weather, is simply there, whether we only talk about it or do something: apply to it the standards of Clayton, or of Sherman, or of any law, or none.").

[30] This natural market fallacy might be viewed as a special case of the broader logical fallacy of attributing tangible forms and properties to abstract concepts. *See, e.g.*, ALFRED NORTH WHITEHEAD, SCIENCE AND THE MODERN WORLD 51–52, 58 (1925) (describing the "Fallacy of Misplaced Concreteness," wherein abstract concepts are mistaken for concrete entities, and therefor analyzed as though they were concrete facts); *see also* Rebecca Haw Allensworth*, Law and the Art of Modeling: Are Models Facts*, 103 GEO. L.J. 825, 832–34 (2015) (describing some properties of scientific models and their relationship to reality or optimal description).

categorized—almost as a biologist might compare the characteristics of an insect to those of known exemplars in trying to identify it.

The leading authority for defining markets around the distinguishing characteristics of products is *General Motors*, a merger case in which the Supreme Court distinguished a narrow relevant market of "automotive finishes and fabrics" from a broader class of ostensibly similar industrial finishes and fabrics. The Court based its definition of the market on its conclusion that "automotive finishes and fabrics have sufficient peculiar characteristics and uses [relative to the broader category] to make them [the relevant market for analysis]."[31] It is easy to imagine how differences in product characteristics and uses could indicate the competitive closeness of products, but the opinion merely noted the differences. Beyond providing an articulable basis for distinguishing one group of products from another, the Court did not even try to explain how or why such *peculiar characteristics and uses* should affect the boundaries of the relevant market.[32]

The leading authority for defining markets based on public recognition of specific trade and industry lines is another merger case, *Brown Shoe*.[33] The district court, in this case, recited the standard litany of market definition concepts before proceeding to focus almost exclusively on a simplistic factual reporting of how commercial entities and the public viewed the boundaries of the relevant market:

> [A] 'line of commerce' *cannot be determined by any process of logic* and should be determined by the processes of observation. ... Therefore, we must go to the facts in the case and see what the testimony here reveals and make a determination of the 'line of commerce' from the practices in the industry, the characteristics and uses of the products, their interchangeability, price, quality and style. *In other words, determine how the industry itself and how the users, the public, treat the shoe product*.[34]

The Supreme Court largely adopted this approach, articulating a laundry list of *practical indicia*—observational factors—that might be used to identify submarkets in which mergers could be assessed:

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[31] United States v. E. I. du Pont de Nemours & Co., 353 U.S. 586, 593–95 (1957) [hereinafter *General Motors*].

[32] *See id.* at n.12 (reciting trial testimony without further commentary).

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

[34] United States v. Brown Shoe Co., 179 F. Supp. 721, 730 (E.D. Mo. 1959), aff'd, 370 U.S. 294 (1962) (emphasis added).

> The boundaries of [a] submarket 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, distinct customers, distinct prices, sensitivity to price changes, and specialized vendors.[35]

We return briefly to the distinction between relevant markets and submarkets below. For now, the interesting point is that, while some of the *Brown Shoe* practical indicia could indeed reveal something about the competitive closeness of products and producers, the Court did not refer to this possibility in its own analysis.[36] Instead, the opinion's treatment of market definition was preoccupied with the question of the minimum size required for a potential submarket to warrant antitrust scrutiny.[37]

Our aim here is not to criticize these opinions. Rather, we wish to emphasize what is left unclear by modern reinterpretations of the tests they created. It is not difficult to mold the peculiar-characteristics test into a rough approximation of how substitutable one product may be for another. And courts and scholars have similarly reinterpreted several of the practical indicia as factors relevant to assessing closeness of competition.[38] Product characteristics and some of the practical indicia may indeed be relevant to assessing the economic potential for competitive injury in many cases.[39] But the discussion of market definition in these opinions, and thus the language of these tests, was never meant to fit the focus of modern antitrust analysis.

Antitrust law had not yet coalesced around the consumer welfare-standard, and both *General Motors* and *Brown Shoe* were influenced by the populist objectives that originally motivated the antitrust statutes. Congress's intent

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[35] *Brown Shoe*, 370 U.S. at 325; *see also id.* 336–37 ("Congress prescribed a pragmatic, factual approach to the definition of the relevant market and not a formal, legalistic one. The [market] must, therefore, … 'correspond to the commercial realities' of the industry …").

[36] *See, e.g.*, *id.* at 326 (dismissing, without further explanation, the possibility of drawing narrower markets around price/quality differences in shoes as "unrealistic").

[37] *See, e.g.*, *id.* at 320 (reading legislative history to indicate "concern was with the adverse effects of a given merger on competition only in an *economically significant* 'section' of the country.") (emphasis added); *id.* at 325 ("it is necessary to examine the effects of a merger in each such *economically significant* submarket …") (emphasis added); *id.* at 335 ("The 1950 amendments made plain Congress' intent that the validity of such combinations was to be gauged on a broader scale: their effect on competition generally in an *economically significant* market.") (emphasis added).

[38] *See, e.g.*, Rothery Storage & Van Co. v. Atlas Van Lines, Inc., 792 F.2d 210, 218–19 (D.C. Cir. 1986) (reinterpreting the Court's practical indicia as "evidentiary proxies for direct proof of substitutability"); Baker, *supra* note 27, at 205 (providing a similar reinterpretation).

[39] *See, e.g.*, FED. R. EVID. 401 ("Evidence is relevant if ... it has any tendency to make a fact [of consequence] more or less probable than it would be without the evidence[.]").

with § 7 of the Clayton Act, for example, seemed to be the protection of small and local competitors against larger rivals, and the prevention of what seemed a trend toward increasing concentration in various industries.[40] Though less focused, this Congressional concern with protecting small competitors against larger rivals motivated the Sherman Act as well.[41]

Naturalistic market concepts follow logically from these populist policy goals. In common usage, the terms *market*, *commodity*, and *industry* are not clearly related to substitutability and the closeness of competition between products and producers.[42] If what Congress sought to achieve was to protect small businesses and to prevent further concentration in industries and markets as popularly conceived,[43] then the naturalistic market definition standards of these cases were reasonable efforts to comply with legislative intent. The problem is not that these natural market concepts were always inappropriate;

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[40] *See, e.g.*, *Brown Shoe*, 370 U.S. at 315–16 ("[C]onsiderations cited in support of [amendments to § 7] were the desirability of retaining 'local control' over industry and the protection of small businesses…"); *id.* at 344 ("[We] cannot fail to recognize Congress' desire to promote competition through the protection of viable, small, locally owned business."); Hovenkamp, *supra* note 29, 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.").

[41] *See, e.g.*, HERBERT HOVENKAMP, THE ANTITRUST ENTERPRISE 41 (2005) ("Although writers heaped scorn upon Warren Court antitrust policy in the 1960s for its protection of small business, that policy was probably the most faithful to Congress's goals in passing the Sherman Act."); 1 PHILLIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW ¶ 103 (4th ed. 2013) ("[W]hile the framers of the Sherman Act were intent on condemning 'monopoly,' they saw the principal injury of monopoly as reaching competitors rather than consumers…."); Carl Shapiro, *Antitrust in a Time of Populism*, 61 INT'L J. INDUS. ORG. 714, 715 (2018) ("[T]he Sherman Act itself was passed in 1890 in response to broad concerns about the political and economic power of large corporations in America…."); *see also* George J. Stigler, *The Origin of the Sherman Act*, 14 J. L. STUD. 1 (1985) (arguing that the Sherman Act was passed to protect competitors against larger and more efficient rivals).

[42] *See* 2B AREEDA & HOVENKAMP, *supra* note 10, ¶530a, at 235 n.5 ("In other contexts, of course, 'market' means something else—for example, a trading center, as in 'the stock market' or 'the town's flea market.' Data collections, including the Census, frequently lump together a distribution level ('retailing') or a category of manufacture ('motors and generators') that covers products that do not compete with each other."); *cf.* Triffin, *supra* note 17, at 90 ("The term 'commodity' was one of those words which, for a long time, could be used without any question being raised as to its exact meaning.").

[43] *See* Hovenkamp & Shapiro, *supra* note 9, at 2018 (commenting that the "line of commerce" language of Section 7 was probably never intended to mean more than "a particular 'line' [of products] that a seller might sell" as the term was used "by both businesspeople and courts" of the time, and noting that Congress could have—but did not—adopt the relevant market term of art when drafting revisions to this section of the statute); Hovenkamp, *supra* note 29, at 891 ("When it drafted the phrases 'line of commerce' and 'section or community' in 1914, and even when it restated them as 'section of the country' in 1950, Congress almost certainly did not have a technical definition of 'relevant market' in mind.").

the problem is that, having survived the evolution of antitrust policy, they are now inconsistent with the modern analytical approach.

### B. NATURAL MARKETS DEFINED BY SUBSTITUTABILITY

While characteristic-based markets present the clearest examples of natural market reasoning, even in its older cases, the Supreme Court did not always adhere strictly to lay concepts of industry when defining relevant markets,[44] and standards for defining relevant markets have always included various approximations to the economic idea of substitutability. Such standards include the related notions of the *cross-elasticity of demand* and the *reasonable interchangeability of use* between products.[45] The basic idea is that somewhere in the field of increasingly distant competing products, substitutability becomes too weak to warrant inclusion in the relevant market—a generalization of the intuition that two general stores in the same small town compete in a common market, but may not compete in a common market with stores in neighboring towns, and certainly not in the same market as stores hundreds of miles away. There are admirable qualities to this substitutability approach to defining markets, but—without additional details in the analysis—it too rests on what is a naturalistic market concept.

A leading authority for defining markets using cross-elasticities of demand is *Times-Picayune*, a tying case in which the Court undertook no detailed market analysis, but included a footnote favoring market definition based on degrees of substitutability:

> For every product, substitutes exist. But a relevant market cannot meaningfully encompass that infinite range. The circle must be drawn narrowly to exclude any other product to which, within reasonable variations in price, only a limited number of buyers will turn; in technical terms, products whose 'cross-elasticities of demand' are small.[46]

In using the term, cross-elasticities of demand, the Court probably overstated the economic precision of its standard. Its own analysis of the "cross-elasticity of demand" considered no more than the "the trade's own characterization of

[44] *E.g.*, United States v. Cont'l Can Co., 378 U.S. 441, 457 (1964) ("Where the area of effective competition cuts across industry lines, so must the relevant [market]; otherwise an adequate determination of the merger's true impact cannot be made.").

[45] The cross-elasticity and reasonable interchangeability standards are by no means the only ways that the Court has articulated this type of substitutability-based market concept. *See, e.g.*, Tampa Elec. Co. v. Nashville Coal Co., 365 U.S. 320, 327 (1961) (defining the area of effective competition as "the area in which the seller operates, and to which the purchaser can practicably turn for supplies.").

[46] Times-Picayune Pub. Co. v. United States, 345 U.S. 594, 612 n.31 (1953).

the products involved" and to observe that those in the trade "markedly differentiate" between certain products.[47]

Another leading authority for defining relevant markets by cross-elasticity of demand is *Cellophane*.[48] Here, however, the Court confused the issue by seeming to separate the cross-elasticity approach from yet another standard for antitrust market definition based on the interchangeability of use between different of products:

> In considering what is the relevant market for determining the control of price and competition, no more definite rule can be declared than that commodities reasonably interchangeable by consumers for the same purposes make up that 'part of the trade or commerce', monopolization of which may be illegal.[49]

Whether an intelligible distinction exists between the concepts of cross-elasticity of demand and reasonable interchangeability of use is doubtful. Some lower courts have taken to using reasonable interchangeability to mean the court's own assessment of the technical substitutability of products, and to using cross-elasticity of demand to mean a second-pass filter that takes account of customer willingness to substitute products at then-existing prices.[50] There is no plausible economic justification for this bifurcated approach, and it conflicts with the standard actually articulated in *Cellophane*, encompassing "reasonable interchangeability … *price, use and qualities considered*."[51]

It is easy to overstate the degree to which the cross-elasticity and reasonable interchangeability standards differ from the product characteristics standards

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[47] *Id.* ("Useful to [determining cross-elasticities of demand] is, among other things, the trade's own characterization of the products involved. The advertising industry and its customers, for example, markedly differentiate between advertising in newspapers and in other mass media.").

[48] United States v. E. I. du Pont de Nemours & Co., 351 U.S. 377, 380–81 (1956) [hereinafter *Cellophane*] ("Every manufacturer is the sole producer of the particular commodity it makes but its control in the … sense of the relevant market depends upon the availability of alternative commodities for buyers: i.e., whether there is a cross-elasticity of demand [between products].").

[49] *Id.* at 395; see also *id.* at 404 ("[The relevant] market is composed of products that have reasonable interchangeability for the purposes for which they are produced—price, use and qualities considered.").

[50] *E.g.* FTC v. Arch Coal, Inc., 329 F. Supp. 2d 109, 119–20 (D.D.C. 2004), case dismissed, No. 04-5291, 2004 WL 2066879 (D.C. Cir. Sept. 15, 2004); FTC v. Staples, Inc., 970 F. Supp. 1066, 1074–75 (D.D.C. 1997); United States v. Chas. Pfizer & Co., 246 F. Supp. 464, 468 (E.D.N.Y. 1965).

[51] *Cellophane*, 351 U.S. at 404 (emphasis added); *cf.* United States v. Archer-Daniels-Midland Co., 866 F.2d 242, 246 (8th Cir. 1988) ("While sugar and HFCS are functionally interchangeable, they are not reasonably interchangeable because of the price differential between the two products.").

discussed in the previous section. The leading cases for the substitutability standards also relied upon observational standards,[52] and vice-versa.[53] The substitutability standards do, however, represent a conceptually distinct approach to market definition.

The basic strategy of both the cross-elasticity and reasonable interchangeability standards is the same: draw the market-boundary line where the substitutability of products and producers becomes too attenuated. Unfortunately, neither standard 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?[54] The lack of an answer exposes the naturalistic foundation of these standards.

First, and most importantly, these substitutability standards reflect the naturalistic presumption that markets exist identifiably in the world, distinct from any given inquiry or investigation. The error of ignoring the theory dependence of market definition is addressed in Part II. Here, we are concerned with the naturalistic character of these standards. The Court's old substitutability standards conceive of markets as observable groups of products or producers, at least when all relevant elasticities are known. Such a situation would arise only if there were natural or physical boundaries to competition: a gap in the chain of substitutes so vast that the products, producers, and customers on one side of the gap were not competitively relevant to those on the other side.[55] Any such market would be naturally identifiable in the world.

Second, the expectation that substitutability standards should reveal natural markets is revealed in the failure of this ideal. Perfect gaps in competition are

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[52] *See supra* note 47 and accompanying text; *Cellophane*, 351 U.S. at 380–81 (commenting that "interchangeability is largely gauged by the purchase of competing products for similar uses considering the price, characteristics and adaptability of the competing commodities.").

[53] *E.g.*, Brown Shoe Co. v. United States, 370 U.S. 294, 325 (1962) ("The outer boundaries of a product market are determined by the reasonable interchangeability of use or the cross-elasticity of demand between the product itself and substitutes for it.").

[54] *See* Patrick Massey, *Market Definition and Market Power in Competition Analysis: Some Practical Issues*, 31 ECON. & SOC. REV. 309, 314 ("It is unclear how high the cross price elasticity of demand needs to be before goods can be considered to be part of the same market."); FRITZ MACHLUP, THE ECONOMICS OF SELLERS' COMPETITION 213 (1952) ("If it is understood that the products of different firms are generally not identical but different, what degree of similarity or dissimilarity or, more concisely, what degree of substitutability would justify us in speaking of the 'same' industry or of 'different' industries?).

[55] *Cf.* JOAN ROBINSON, THE ECONOMICS OF IMPERFECT COMPETITION 17 (1969) ("The correspondence of [the classical economic idea of industry] to the industries of the real world is not perhaps very close. But in some cases, where a commodity in the real world is bounded on all sides by a marked gap between itself and its closest substitutes [the real-world industry will approximate the theoretic ideal.]").

rare; a given product usually faces competition from products of varying degrees of substitutability at different price points.[56] And precisely because the substitutability standards offer no clear guidance on what to do in these cases, courts and scholars have come to describe relevant markets as imperfect and artificial.[57] Often, but not always, these apologies are founded on the notion that a correct market exists, but has not been identified. Worse yet, the existence of plausible alternative markets is somehow thought to undermine the validity of any given choice of markets. In all these situations, the naturalistic underpinnings of the substitutability standards are manifest.

The point is not that market definition is unnecessary, unprincipled, or impossible. As detailed further below, there are logical and helpful ways to approach the exercise. An appropriate application of the HMT exemplifies such an approach. The point is that market definition has often been understood to seek natural or preexisting markets. That is a problem, because there are no natural markets to be found.

### C. THERE ARE NO NATURAL MARKETS

Unsurprisingly, the natural market bias of early antitrust opinions paralleled early economic thinking on this topic. Starting from an uncritical identification of markets with commodity concepts in textbook price-theory models,[58] economists contemplated the classification of industries around observable

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[56] *See* Stocking, *supra* note 24, at 483 ("All products compete with each other for the consumer's dollar, and in this sense each product is a substitute for any other."); MACHLUP, *supra* note 54, at 213 ("The use of the expression 'entry into the industry' presupposes that there are borderlines of some sort between one industry and another. Yet we know that often in reality there are no such border lines of any sort."); Nicholas Kaldor, *Mrs. Robinson's "Economics of Imperfect Competition"*, 1 ECONOMICA 335, 335 (1934) ("Different producers are not selling either 'identical' or 'different' products, but 'more or less different' products—the demand confronting them being neither completely sensitive nor completely unsensitive to the prices charged by other producers.").

[57] *See* 2B AREEDA & HOVENKAMP, *supra* note 10, ¶ 530d ("The Supreme Court has wisely recognized there is 'some artificiality' in any boundaries, but that 'such fuzziness' is inherent in bounding any market."); United States v. Philadelphia Nat. Bank, 374 U.S. 321, 361 (describing market definition as a "workable compromise" that merely avoids the indefensible extremes of overly narrow and overly broad markets).

[58] *See* GEORGE J. STIGLER, THE THEORY OF PRICE 85 (1966) ("A market, according to the masters, is the area within which the price of a commodity tends to uniformity, allowance being made for transportation costs."); TRIFFIN, *supra* note 17, at 78–79 (noting that the equation of industry and commodity made sense in the classical perfect competition model, because "Under pure competition, a number of sellers were supposed to compete for the sale of a homogeneous, identical commodity: these sellers constituted a group, or an industry."); Andreas G. Papandreou, *Market Structure and Monopoly Power*, 39 AM. ECON. REV. 883, 885 (1949) ("Before the advent of the theory of monopolistic or imperfect competition, the concept of a 'group' of firms competing in the sale of a 'commodity' was considered self-explanatory.").

characteristics,[59] the definition of markets by close substitutability,[60] and the termination of market boundaries at discrete gaps in the chain of substitutes.[61] The unsatisfying properties of all these approaches were foreshadowed in the preceding pages.

The turning point in economic thinking occurred in the 1930s and 1940s with the development of the theory of monopolistic competition by Edward Chamberlain. In 1950, Chamberlin surveyed extant market definition concepts with this uninspiring review:

> "Industry" or "commodity" boundaries are a snare and a delusion—in the highest degree arbitrarily drawn, and, wherever drawn, establishing at once wholly false implications both as to competition of substitutes within their limits, which supposedly stops at their borders, and as to the possibility of ruling on the presence or absence of oligopolistic forces by the simple device of counting the number of producers included. As for the conventional categories of industries, it seems increasingly evident to me that they have their origin, not primarily in substitution at all, but in similarity of raw materials or other inputs or of technical methods used.[62]

Yet Chamberlin did not reject the idea of the market itself. Instead, his writing suggested a different way to conceptualize markets: not as "definite economic [entities], the existence of which has merely to be recognized by the investigator," but as analytical tools which "may and should be used with all degrees of inclusiveness" in the process of studying a problem.[63] Under this approach, markets are not concrete arenas or free-standing entities. They are lenses for focusing analysis on a given problem. Such markets can—in fact, must—be molded and shaped to fit the problem at hand.[64] In this approach, there are no

[59] *See, e.g.*, Edward S. Mason, *Price and Production Policies of Large-Scale Enterprise*, 29 AM. ECON. REV. 61, 69 (1939) (proposing to classify market structures by observation of "similar objective conditions" including "the economic characteristics of the product" and "the cost and production characteristics of the firm's operation.").

[60] *Cf.* Abba P. Lerner. *The Concept of Monopoly and the Measurement of Monopoly Power*, 1 REV. ECON. STUD. 157, 167 ("In calling the same thing at different places different commodities, we have rejected the criterion of physical similarity as a basis for [identifying markets] and have put in its place the principle of substitutability at the margin.").

[61] *See* ROBINSON, *supra* note 55.

[62] Edward H. Chamberlin, *Product Heterogeneity and Public Policy*, 40 AM. ECON. REV. 85, 86–87 (1950).

[63] TRIFFIN, *supra* note 17, at 84 (explaining the "Chamberlinian 'group'" concept).

[64] *See* Papandreou, *supra* note 58, at 886 ("For Professor Chamberlin the 'group' concept is merely an analytical tool which derives its content from the problem at hand.").

right or wrong markets, only markets of variable utility in studying a particular economic question.[65]

The novelty of Chamberlin's approach is taken for granted today.[66] For example, though the underlying logic often goes unstated, this analytical understanding of the market concept is foundational in much of modern equilibrium analysis.[67]

Deeply integrated as antitrust law now is with economic analysis, this quick history of the economic concept of markets suggests two fundamental properties of antitrust market definition. First, there is no such thing as an economically interesting natural antitrust market. No *real* markets are waiting to be found.[68] A market is not true (false), correct (incorrect), or real (unreal), but merely appropriate (inappropriate) for a specific purpose. Appropriateness is a contextual quality. And, in antitrust, the context is the theory of harm. Thus the second proposition: as a purely analytical construct, the definition of a relevant market must always depend upon the nature of the problem for which it is to be used. The second point is developed at length in Part II of this article, but the first point deserves brief attention as well.

While it would be unfair to criticize the Court for its early focus on natural market concepts, the same cannot be said of the continued adherence to these concepts today. The problem is that the policy and framework of antitrust law have shifted over time to the economic analysis of effects on consumer wel-

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[65] *See, e.g.*, TRIFFIN, *supra* note 17 (explaining that such a market "abstracts those firms that are more tightly linked with the enterprise under consideration and which, as a consequence, cannot be ignored in a discussion of its problems"); MACHLUP, *supra* note 54, at 217 (defining industry as "merely a short expression which stands [for] all firms whose operations affect one another's selling opportunities and sales revenues so definitely that we must not neglect taking account of them."); id. at 213–14 (explaining that "It saves time and effort in analysis to assume certain variables as constant or, what often comes to the same thing, to disregard them; and it is quite legitimate to do so if changes of these variables are negligible for the particular problem or if the direction of the relationship is uncertain.").

[66] *See, e.g.*, Kaplow, *supra* note 2 at 507 ("[T]here is no way to see (or feel or otherwise directly sense) the magnitude of a firm's market power … No aspect of the analysis is sensory; 'markets' as the term is used in this context are pure abstractions.").

[67] Werden 2013, *supra* note 7, at 746 ("Separating active and passive competitive forces is part of economic analysis because economic models distinguish the strategic action of competitors from background influences on them."); Werden 2014, *supra* note 7 at 2 ("[S]eparating active from passive competitive forces is the defining feature of the [most] ubiquitous modeling technique in the field—partial equilibrium analysis.").

[68] SULLIVAN, *supra* note 15, at 41 ("There is not for any product a single, real 'market' waiting to be discovered.").

fare while the precedential language of these old cases has not changed accordingly. The old naturalistic standards have thus become a barrier to proper market definition and a continual lure toward naturalistic thinking.

The barrier is that even when the factors implicated by these standards are relevant to market definition, nothing in any of the Court's market-definition standards actually says what to do with this information. The substitutability standards do not say what degree of substitution defines a market;[69] the characteristics standards do not say how to interpret any given combination of characteristics.[70] As discussed in Part II, the modern HMT and related tests of market definition provide answers to these questions.[71] But so long as courts and practitioners continue to treat natural market concepts as controlling legal standards—to be accorded equal or greater weight than something like the HMT—market definition will continue to be confused.

The lure of the Court's old market-definition standards is that they provide a vehicle by which natural market thinking continues to creep into market definition practice. One example is the continued focus on *Brown Shoe*'s practical indicia in merger cases.[72] While some of the underlying factors may well be relevant in conducting HMT analysis of a relevant market, treating these factors as having any relevance outside of the scope of the HMT only distracts from proper analysis.

Another example is the occasional argument, based on the reasonable interchangeability standard in *General Motors*, that a judge's own impression of substitutability should outweigh evidence of actual consumer preferences in market definition.[73] The economic incoherence of this idea reflects its naturalistic roots. Only if markets were observable entities in the world could it

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[69] *See supra* notes 54, 57, and accompanying text.

[70] *See* Turner, *supra* note 1, at 1151 ("The problem is, you see, the courts really have not gotten around to trying to spell out the necessary analysis, and what the consequences are of certain facts."); *id.* ("[The Brown Shoe factors are] a laundry list, not a mode of analysis.").

[71] *E.g.* United States v. Anthem, Inc., 236 F. Supp. 3d 171, 193–207 (D.D.C. 2017) (treating the *Brown Shoe* indicia and the HMT as complimentary means of defining markets); FTC v. Sysco Corp., 113 F. Supp. 3d 1, 25–38 (D.D.C. 2015) (same); FTC v. CCC Holdings Inc., 605 F. Supp. 2d 26, 38–45 (D.D.C. 2009) (same).

[72] *See supra* note 71.

[73] United States v. Oracle Corp., 331 F. Supp. 2d 1098, 1131 (N.D. Cal. 2004) ("The test of market definition turns on reasonable substitutability. … This requires the court to determine whether or not products have 'reasonable interchangeability' based upon 'price, use and qualities [...]' ... What, instead, these witnesses testified to was, largely, their preferences. [¶] Customer preferences towards one product over another do not negate interchangeability."); James A. Keyte & Kenneth B. Schwartz, *"Tally-Ho!": UPP and the 2010 Horizontal Merger Guidelines*, 77 ANTITRUST L.J. 587, 607 (2011) ("While the case law remains somewhat murky on the role of cross-elasticity, it is now well-established precedent that consumer preferences are, at most, a component of reasonable interchangeability and should not provide a separate basis for defining a relevant market.").

make sense to elevate a judge's impression of product characteristics above otherwise reliable evidence of consumer preferences in market definition.[74]

Finally, a third example is the misuse of *Brown Shoe*'s admonition that relevant markets must "correspond to … commercial realities"[75] to discredit proposed markets as "unrealistic" or "gerrymandered."[76] Since there is no such thing as a natural or realistic market, there can never be an artificial or an unrealistic market.[77] Defendants are always free to argue that a market is invalid for failing to meet a proper test—not satisfying the HMT, for example—but to say that an otherwise valid market is unrealistic or gerrymandered is to fall prey to the naturalistic fallacy in its most extreme form.[78]

There is no legal or rational defense for perpetuating the natural market fallacy. The Supreme Court's early efforts at market definition never purported to exhaust the ways to define a market.[79] And in more recently stating that the purpose of market definition "is to determine whether an arrangement

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[74] This is not to say that evidence of consumer preferences is entitled to uncritical deference. But, if product characteristics are relevant at all, it must because they help to evaluate consumer preferences—not the other way around. *Cf. supra* note 73 and sources cited therein.

[75] *Brown Shoe*, 370 U.S. at 336. Strictly, the court referred only to geographic markets in this assertion. Use of the idea has not remained so contained.

[76] *E.g.* U.S. Healthcare, Inc. v. U.S. Healthsource, Inc., No. CIV. 91-113-D, 1992 WL 59713, at *5 (D.N.H. Jan. 30, 1992), aff'd sub nom. U.S. Healthcare, Inc. v. Healthsource, Inc., 986 F.2d 589 (1st Cir. 1993) ("I find that the concept of a geographic market being the southern tier of New Hampshire is an unrealistic form of gerrymandering in light of the parties' recruiting, marketing and sales efforts."); United States v. Gen. Dynamics Corp., 341 F. Supp. 534, 560 (N.D. Ill. 1972), aff'd, 415 U.S. 486 (1974) ("even were this court to accept the Government's unrealistic product and geographic market definitions ...").

[77] *See* Baker, *supra* note 11, at 139 ("[T]here is no reason to expect that the concept of market employed by business executives when discussing issues of business strategy or marketing … would be the same as the concept of an 'antitrust market' or 'relevant market' defined for the purpose of antitrust analysis."); 2010 MERGER GUIDELINES, *supra* note 23, § 4, ¶ 8 ("Relevant antitrust markets defined according to the hypothetical monopolist test are not always intuitive and may not align with how industry members use the term 'market.'").

[78] There is no shortage of relevant markets about which claims of unrealistic gerrymandering still hang. See, e.g., F.T.C. v. Whole Foods Mkt., Inc., 548 F.3d 1028, 1035 (D.C. Cir. 2008) (involving the FTC's allegation of a "premium natural and organic supermarkets" relevant market); United States v. Oracle Corp., 331 F. Supp. 2d 1098, 1130 (N.D. Cal. 2004) (involving the DOJ's allegation of a "high function FMS and HRM [software]" relevant market); Hill Wellford & Gregory Wells, *The "Litigation Mulligan" in the 2010 Merger Guidelines: Better Economics but Not (Necessarily) More Clarity Before the Agencies and the Courts*, CPI ANTITRUST J., October 2010, at 1, 11 ("The Agencies' attempts to define as relevant markets certain "high function" enterprise software … and "premium natural and organic supermarkets" …—neither being a term used in the relevant industry—are now recognized as litigation mistakes.").

[79] *Cf.* Brown Shoe Co. v. United States, 370 U.S. 294, 320 (1962) ("Congress neither adopted nor rejected specifically any particular tests for measuring the relevant markets, either as defined in terms of product or in terms of geographic locus of competition.").

has the potential for genuine adverse effects on competition,"[80] the Court has set an objective at odds with its earlier natural market standards, but consistent with HMT markets and related market definition standards. The groundwork for progress has been laid by the courts and scholars that have endeavored to reinterpret and reframe the old standards in modern terms.[81] But why continue to recite the old standards at all? At worst, dropping these old tests from market definition practice changes nothing. That would be the case, for example, if courts never paid more than lip service to the old standards today. At best, dropping the old tests improves the clarity and accuracy of market definition, eliminates an unnecessary distraction, and focuses analysis on the critical task of defining markets to identify the scope of potential competitive harm.[82]

## II. THE INDEPENDENT MARKET FALLACY

The *independent market fallacy* is the common misconception that relevant markets exist independent of a theory of anticompetitive injury. The error in this assumption stems from the prior fallacy. If markets were indeed free-standing entities, then the act of defining a relevant market would be a matter of observation independent of competitive-effects analysis. But antitrust markets are not observable objects; they are concepts designed to study specific competitive concerns. As a result, market definition can never be separated from the act of hypothesizing a specific theory of anticompetitive concern.

If this seems obvious, note that market definition has often been treated as an independent step in rule-of-reason analysis. Early Supreme Court cases were consistent with this view, articulating market-definition tests that were independent of theories of anticompetitive harm and seeming to treat market definition as a step to be completed before competitive-effects analysis would begin.[83] A similar idea long applied in merger review. The understanding of market definition as a discrete, initial step in merger review could be inferred from the text and structure of the 1982 and 1992 Merger Guidelines.[84] The

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[80] FTC v. Indiana Fed'n of Dentists, 476 U.S. 447, 460 (1986); *see also* BETTY BOCK, MERGERS AND MARKETS: AN ECONOMIC ANALYSIS OF THE 1964 SUPREME COURT MERGER DECISIONS 59 (4th ed. 1965) ("Because of the relative flexibility with which the Court has dealt with the problems of market boundaries, the term 'relevant market' … does not, and cannot, refer to a 'market' in any simple economic or trade sense, but refers rather to the … locale where [competitors, suppliers, or customers] may be affected by an acquisition—and nothing more.)."

[81] *See supra* note 38 and sources cited therein.

[82] *See Indiana Federation of Dentists*, 476 U.S. at 460.

[83] *E.g.*, United States v. E. I. du Pont de Nemours & Co., 353 U.S. 586, 593 (1957) ("Determination of the relevant market is a necessary predicate to a finding of a violation …").

[84] *See* U.S. DEP'T OF JUSTICE, 1982 MERGER GUIDELINES § 2, www.justice.gov/sites/default/files/atr/legacy/2007/07/11/11248.pdf (appearing to make market definition a discrete first

2010 Horizontal Merger Guidelines now deny this rote ordering of analysis, but advocates of the old way remain.[85]

This part of the article shows how the economic understanding of markets as analytic tools necessitates customization of market definition to the specific theory of harm at issue. Standards like the HMT broadly align market definition with theories of competitive harm. But even these standards generally require further tailoring to arrive at appropriate results in a given case.

### A. THEORY-DEPENDENCE OF THE MARKET CONCEPT

Antitrust scholars have long suspected that mainstream economics has little to say about market definition.[86] And it has recently become popular to claim that economists *never* define markets.[87] Both ideas are curious, given the substantial effort that economists have devoted to studying both the theory of market concepts and the identification of markets.[88] To be charitable, perhaps these assertions only mean that mainstream microeconomists do not often define antitrust markets in the normal course of their research. If that is the claim, then it is surely correct, but uninteresting.

Because antitrust markets are constructed for the specific purpose of studying antitrust problems, it would be remarkable indeed if they *were* of interest to economists studying non-antitrust problems. The point is not that antitrust market concepts differ fundamentally from the market concepts used other

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step in merger analysis); U.S. DEP'T OF JUSTICE & FED. TRADE COMM'N, 1992 MERGER GUIDELINES § 0.2, ¶ 1, www.justice.gov/sites/default/files/atr/legacy/2007/07/11/11250.pdf [hereinafter 1992 MERGER GUIDELINES] (similar).

85 *Cf.* Varney, *supra* note 21, at 655 (responding to criticism of the 2010 Merger Guidelines' position that merger review does not need to begin with market definition).

86 *E.g.*, Stigler & Sherwin, *supra* note 3, at 555 ("The infrequency with which one encounters actual market size determinations outside the antitrust area is surprising and perhaps disquieting."); George J. Stigler, *The Economists and the Problem of Monopoly*, 72 AM. ECON. REV. 1, 9 (1982) ("My lament is that this battle on market definitions, which is fought thousands of times what with all the private antitrust suits, has received virtually no attention from us economists."); Horowitz, *supra* note 3, at 1–2 ("Curiously enough, economists have had comparatively little to say about how to delineate markets …").

87 Kaplow 2013, *supra* note 5, at 364 ("[T]he notion of a relevant market does not exist [in industrial organization economics]"); Kaplow 2012, *supra* note 5, at 927 n.16 ("It is the market definition approach that is unsubstantiated; … in the economic theory of industrial organization it does not even exist."); Hovenkamp, *supra* note 29, at 910 ("Indeed, as Kaplow observes, the concept of market definition has virtually no presence in the theoretical or empirical literature of industrial organization today."); Fisher, *supra* note 8, at 132 ("What, then, does economic analysis have to say about market definition? In one sense, the answer is "Nothing at all." The question of what is 'the' relevant market never arises in economics outside of antitrust.").

88 *See supra* Part I.C (citing and discussing just some of this work).

places in economics.[89] What really differs from one context to the other is the problem at hand.

In antitrust trials and investigations, attention is typically devoted to one of two questions: (1) has suspect conduct caused some anticompetitive injury? or (2) might it, or some future conduct, cause future anticompetitive injury?[90] One market concept helpful in answering either question is an outer bound on the entities sufficient to bring about the hypothesized injury: a market defined as a class of transactions in which the contemplated injury *could* occur, at least under assumptions favorable to that theory of harm.[91] Sometimes defining such a market will answer the question whether competitive injury did, or is likely to, occur. In most cases, such a market definition will not itself provide an answer but will facilitate further analysis by identifying further questions that must be answered in order to address the ultimate question about the past or future occurrence of anticompetitive injury.

In the right circumstance, the HMT exemplifies this type of market concept. The test is familiar enough to require no detailed summary.[92] The basic idea is to take a putative market (e.g., a set of products) and ask whether a hypothetical monopolist over this market could profitably raise the price of some of the products by a "small but significant amount" (e.g., by 5%) over an appropriate baseline (e.g., the competitive price) for an appreciable period of time (e.g., a year). If the answer is yes, then the candidate market satisfies the test and is a relevant antitrust market; if the answer is no, then the candidate

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[89] *Cf.* Massey, *supra* note 54, at 317 ("An important development in the literature on market definition … is the distinction between the concept of a relevant market used in competition analysis, and traditional economic definitions of a market."); Werden, *supra* note 10, at 515–16 ("[T]he concept of market delineation as it is used in the antitrust context is quite foreign to economic theorists, and it is only this context that gives meaning to the market delineation question."); Turner, *supra* note 1, at 1147 ("[T]here is bound to be, it seems to me, a difference between the economic and legal concepts of the market."); *see also* Papandreou, *supra* note 58, at 883 ("One important reason for this gap between the legal and economic concepts of monopoly is their difference in emphasis. Whereas the lawyer deals with competitive relationships, the economist is primarily interested in the allocation mechanism and welfare economics."). Note that we are referring to relevant *antitrust* markets here; the term "relevant market" may deviate from the economic concept in other areas of law. *See generally* CHRISTIAN A. MELISCHEK, THE RELEVANT MARKET IN INTERNATIONAL ECONOMIC LAW (2012).

[90] This does not describe all antitrust applications. Proof of anticompetitive injury is not required in hard core collusion cases under § 1 of the Sherman Act, for example. Tellingly, this is one situation in which courts have long dispensed with the need to define relevant markets.

[91] *See, e.g.*, Werden 2013, *supra* note 7, at 741 ("When the [HMT] is used, the allegation of the relevant market certifies at least the possibility of harm the antitrust laws were designed to prevent."); POSNER, *supra* note 24, at 148-49 ("[A group of sellers] is thus a market in the sense, which is the only one relevant to an economic analysis of competition and monopoly, of a group of sellers who have the power to increase the market price by merging or colluding.").

[92] *See generally* 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 23, § 4.1.1 (providing the modern expression of the HMT as applied to horizontal mergers).

market is expanded to include additional products and the test is repeated until a relevant antitrust market is found. Less elaborate articulations of the HMT,[93] and comparable standards based on the identification of possible collusive groups[94] or producers that would otherwise constrain a given exercise of market power,[95] amount to roughly the same idea.

Tests of this form lead to the delineation of appropriate antitrust markets if they correspond to the theory of harm at issue. To illustrate, suppose a proposed merger of two rival producers raises concern that coordination among the remaining producers of similar products will result in modest, near-term price elevation. The typical articulation of the HMT (focusing on a non-transitory 5% price increase) defines a relevant market corresponding to just such a theory of harm. Proper implementation of this version of the HMT will delineate only those markets in which coordination among the set of producers *could* result in something like a near-term 5% price increase Whether the merger *would* bring about this result is a question requiring further analysis of market structure and the feasibility of coordination. Either way, the relevant market identifies the suspect participants and helps contextualize the analysis needed to assess the likelihood of this post-merger price increase.

But the usual articulation of the HMT fails to identify a proper market if it does not correspond to the relevant theory of harm. Suppose, for example, that a proposed merger instead raised concern about coordination causing a large price increase, not taking effect until the next bidding cycle three years in the future. The usual articulation of the HMT is not well suited to the identification of a relevant market for this theory of harm. The typical HMT parameters

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[93] *See, e.g.*, Hovenkamp & Shapiro, *supra* note 9, at 1999 ("Any candidate market for which the court concludes that a perfectly functioning cartel would lead to a significant price increase qualifies as a relevant market."); 2B AREEDA & HOVENKAMP, *supra* note 10, ¶533, at 267 ("A 'market' is any grouping of sales whose sellers, if unified by a hypothetical cartel or merger, could profitably raise prices significantly above the competitive level."); SULLIVAN, *supra* note 15, at 41 ("To define a market … is to say that if prices were appreciably raised or volume appreciably curtailed … while demand held constant, supply from other sources could not be expected to enter promptly enough and in large enough amounts to restore the old price or volume.").

[94] *E.g.*, Kenneth D. Boyer, *Is There a Principle for Defining Industries?*, 50 S. ECON. J. 761, 763 (1984) (defining markets around possible collusive groups).

[95] *See, e.g.*, Fisher, *supra* note 8, at 133 ("[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..."); MASSIMO MOTTA, COMPETITION POLICY: THEORY AND PRACTICE 102 (2004) ("[T]he relevant market should … [contain] the set of products (and geographic areas) that exercise some competitive constraint on each other."); *see also* Boyer, *supra* note 94, at 763 ("A firm's competitors … are those sellers who would cause significant losses if that firm took independent action.").

target moderate price elevation in the near term, not large price elevation in the longer term. The groups of producers with sufficient power and incentive to impose large price increases may well differ from those with the power and incentive to target moderate price increases. And the ability of customers to avoid more distant future price increases by substituting products or suppliers may well differ from the ability of customers to cover against near-term price increases. The point is not that the HMT cannot be used in this setting, only that it must be customized to fit the specific theory of harm at issue.

## B. CUSTOMIZATION OF THE MARKET CONCEPT

Decades ago, Phillip Areeda complained "I am repeatedly disappointed that my students leap into market definition without first specifying the particular legal question that the tribunal hopes to answer through market definition."[96] We doubt Areeda would be better disposed toward current practices. Even in a framework as sophisticated as the HMT, market definition is often treated as if it were a question-independent step in the analysis. This is an error wherever it occurs. A meaningful relevant market can be defined only by reference to a given theory of anticompetitive harm,[97] because the relevant market must always be customized to fit the theory of harm.[98]

This simple proposition has immense clarifying power in explaining the role of market-definition in antitrust. Take the 2010 Horizontal Merger Guidelines. While conceding that the base price and hypothesized price increase may differ from one application of the HMT to the next,[99] the Guidelines offer

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[96] Areeda, *supra* note 10, at 553; *see also* Fisher, *supra* note 8, at 130 ("The first thing to understand about market definition is that how it is done depends on the purpose for which it is used."); *see also* Fishman v. Estate of Wirtz, 807 F.2d 520, 568–69 (7th Cir. 1986) (Easterbrook, J., dissenting in part) ("The market definition in this case shows why you can't pick a market without knowing the purpose of the choice. The court has defined a market of professional basketball in Chicago. This is a plausible market, if the question is whether anything injured consumers. … If, instead, we seek to learn whether CPSC harmed competition for a sports franchise, we must define a market that looks at the demand and supply possibilities facing Rich and IBI.").

[97] *Id.* ("[A] subordinate question needs to be focused before market definition can be attempted: namely, what particular impairment of competition is to be feared.).

[98] *See, e.g.*, Salop, *supra* note 25; at 191 ("Market definition and market power should be evaluated in the context of the alleged anticompetitive conduct and effect, not as a flawed filter carried out in a vacuum divorced from these factors."); Gregory J. Werden, *Four Suggestions on Market Delineation*, 37 ANTITRUST BULL. 107, 108 (1992) ("Assuring that markets are suitable for the purposes to which they are put requires that a preliminary step be taken before market delineation. This step is the identification of who might exercise market power, against whom it might be exercised, and how it might be exercised.").

[99] *E.g.*, 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 23, § 4.1.1, ¶ 2 n.4 (considering circumstances in which a hypothetical cartel should be used in place of a hypothetical monopolist); *id.* § 4.1.2, ¶ 1 (defining the HMT benchmark price as that which "would likely prevail absent the merger"); *id.* § 4.1.2, ¶ 3 (allowing the size of the hypothesized price increase to depend on "the nature of the industry and the merging firms' positions in it").

no rationale for how or why these parameters should be chosen in any given application. Confusion could have been avoided if the Guidelines had stated that the base price and hypothesized price increase must correspond to the specific theory of anticompetitive harm being investigated. We now discuss how this correspondence can be achieved in practice.

### 1. *Customizing the Price Increase*

The gravest omission in the 2010 Merger Guidelines may be its failure to explain how to choose the size of the hypothesized price increase in applications of the HMT.[100] After noting that the size of the increase is a methodological question, not a policy choice'[101] the Guidelines say only that the size of a hypothetical price increase depends on "the nature of the industry and the merging firms' positions in it."[102] This guidance is so vague as to be useless, and it may even be read as reverting to natural market concepts—the "nature" of some metaphysical "industry"—even as it seeks to articulates an analytical market concept. The clearer and more useful guidance would have been to say that the size of the price increase should reflect the specifics of the hypothesized injury under investigation.

To put this point in perspective, it helps to consider *why* the size of the assumed price increase is not a policy question. The typical and flawed argument to the contrary is that violations of the antitrust laws should not be found for less than a substantial price increase, so relevant markets should not be defined based on insubstantial price increases—less than, say, 5%.[103] There are two problems with this argument. First, apart from some loose qualifiers

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[100] We recognize that omitting this detail could serve important ends. It might preserve some flexibility in the process or increase accessibility to lay readers. Our focus is on the Guidelines' role as a description of the market definition process, and we hope our comment will be understood as limited to this scope.

[101] *Id.* § 4.1.1, ¶ 2 ("The SSNIP is … a methodological tool for performing the hypothetical monopolist test; it is not a tolerance level for price increases resulting from a merger.").

[102] *Id.* § 4.1.2, ¶ 3.

[103] *See, e.g.*, 2B AREEDA & HOVENKAMP, *supra* note 10, ¶530a, at 238 ("[T]he extent of the market for legal purposes depends on the magnitude and duration of power that antitrust law deems critical. … selecting the relevant degree and duration are questions of legal policy…"); *id.* ¶530e, at 241 ("Because the market power that concerns antitrust law must be 'substantial,' a product that can be profitably priced only a few percentage points above the perfectly competitive level … should not be deemed a 'market' for antitrust purposes."); Werden, *supra* note 10 , at 538–39 ("The Guidelines also require price increases to be 'significant and non-transitory' because collusion that increased price only slightly or for a very short time would not have a significant adverse effect on the economic welfare of the nation, and therefore would not justify governmental intervention in the marketplace.").

(*undue* restraint of trade; *substantial* lessening of competition)[104] there is no quantitative threshold for violating any antitrust statute,[105] so it would be odd to contemplate implementing any particular choice of threshold at the market definition stage. Second, even if there *were* something like a minimum 5% price-increase requirement to prove a violation, the requirement would logically apply to the competitive effect of some challenged conduct, not the relevant market in which that challenged conduct is to be assessed.

To illustrate the second point, suppose that a hypothetical monopolist over a given set of products would raise the price of every product in the set by 10%. This set of products constitutes a valid relevant market when tested by the HMT with a 5% hypothesized price increase, but this says little about the actual price effect resulting from whatever conduct is being explored. Perhaps the conduct in question is a merger to monopoly, in which case the price effect would be double the assumed 5% threshold. Perhaps the conduct in question is the merger of two out of ten firms in the relevant market, in which case the price effect could be much smaller than the assumed 5% threshold.[106] In either case, attempting to implement the substantiality threshold at the market definition stage is both clumsy and misleading.

So, on what basis *should* the hypothetical price increase be chosen when applying the HMT? On the basis of the theory of anticompetitive injury in question. At a minimum, this means that we ought never choose a hypothetical price increase larger than what the actual anticompetitive effect is expected to be. Suppose, for example, that the anticompetitive concern around some challenged conduct is a price increase of only 3%—because an elastic supply of an alternative product is known to be available at a price 3% above the current price.[107] As we discuss later, a 3% price increase on a large mass of sales may amount to substantial competitive harm and thus warrant antitrust scrutiny.[108] How should we define the market for this inquiry? A relevant market defined

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[104] *E.g.*, Standard Oil Co. of New Jersey v. United States, 221 U.S. 1, 58–60 (1911) (interpreting Sherman Act § 1 to reach only "undue" restraints of trade); Clayton Act, ch. 323, § 7, 38 Stat. 730, 731-32 (1914) (current version at 15 U.S.C. § 18 (2012)) (prohibiting mergers, the effects of which "may be substantially to lessen competition, or to tend to create a monopoly").

[105] This is a statement of U.S. antitrust law. *Cf.* 2014 O.J. (C 291) 1 (describing conditions under which "agreements of minor importance … do not appreciably restrict competition under Article 101(1) of the Treaty on the Functioning of the European Union").

[106] *See* Gregory J. Werden, *The History of Antitrust Market Delineation*, 76 MARQ. L. REV. 123, 204 (1992) (offering a similar observation).

[107] *See, e.g.*, United States v. Archer-Daniels-Midland Co., 866 F.2d 242, 246 (8th Cir. 1988) (finding that a monopolist of high fructose corn syrup could raise the price of this product "to just below the … price of sugar before being constrained by the competitive forces of sugar.").

[108] We provide a more detailed discussion of how a proper understanding of market definition informs the substantiality inquiry in Part IV.B.

by the HMT with the usual 5% price increase is inappropriate. Of what importance are the suppliers that are "in" the market for a 4–5% price increase when our actual concern is a 1–3% price increase? If these suppliers would not constrain the hypothesized 3% price increase, then their inclusion in the market could only confuse analysis and exaggerate the competitive forces acting against the hypothesized injury. The maximum price increase for the HMT in this example would be at most 3%, the upper bound on the price increase posited by the specific anticompetitive theory at issue.[109]

This point can be generalized. If the hypothesized anticompetitive injury is a large price increase, something like 10–20%, then a relevant market defined by the HMT with a 5% hypothesized price increase is likewise inapt to the inquiry. If a large price increase is the concern, then the absence of adequate substitutes in response to a small price increase is at best of partial interest. Here, it is critical is to know which producers are "in" the market for a large price increase on the order of the theorized concern. An appropriate choice of price increase for the HMT in this example is thus something like 10–20%.

Of course, in many cases it may be impossible to state the anticompetitive concern with such precision. Early in the review of merger notifications, for example, precise predictions of the potential anticompetitive concern cannot be expected. In other situations, such as those involving a range of potential coordination strategies, it may never be possible to specify competitive concerns in fine detail. Where nothing about the conduct or context suggests otherwise, the long-standing default 5% price increase of the Merger Guidelines seems reasonable.[110] But it should not be treated as the rote standard that it is today. If the relevant market is to be helpful in analyzing questions, then as the nature of anticompetitive concern evolves and comes into focus, so should the relevant market.

### 2. *Customizing the Base Price*

Another HMT parameter in need of customization is the base price. Though rarely described in quite these terms,[111] the posterchild for failing to heed this requirement is the Supreme Court's infamous blunder in *Cellophane*.[112] To

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[109] Whether a price increase of at most 3% warrants legal relief is a conceptually and logically separate question from how to define the relevant market for this injury. The logic of market definition does inform this question, however, and we return to this subject in Part IV.B.

[110] 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 23, § 4.1.2, ¶ 3 ("The Agencies most often use a SSNIP of five percent of the price paid by customers ...").

[111] An exception is Salop's treatment of this subject. Salop, *supra* note 25, at 194, 197 (providing a description of the "*Cellophane* trap" analogous to what we describe, here).

[112] *Cellophane*, 351 U.S. 377 (1956).

translate the Court's mistake into HMT terms, in attempting to define the relevant market for assessing a monopolization claim under § 2 of the Sherman Act, the Court asked whether DuPont would have found it profitable to increase the price of its cellophane product by 5%. Finding that DuPont would not have profited from such a price increase—to the surprise of no one operating under the assumption that firms set prices to maximize profits—the Court went on to expand the relevant market and misleadingly mask DuPont's apparent ability to exercise market power. If the base price in the HMT had not been the current price, but instead some estimate of Cellophane's competitive price, then the relevant market would have been narrowed and DuPont's market power would have been evident.[113]

Few antitrust decisions have been pilloried so deservedly as *Cellophane*. But just what made the Court's reasoning fallacious has never fully crystalized in the literature. Comments on the topic often draw a distinction between market definition in monopolization cases versus merger cases, wrongly suggesting that the statutory standard is of more than derivative importance in dictating how markets should be defined.[114] Similar ambiguity envelops the 2010 Horizontal Merger Guidelines' approach to selecting the baseline price in the HMT. The Guidelines expressly contemplate alternatives to the current-price default baseline, but described the situations in which alternatives would be allowed by vague references to likely future prices absent the merger.[115] While none of these commentaries is entirely off the mark, none answers the root question: what dictates the proper choice of baseline price?

The answer is, once again, the theory of anticompetitive injury. As purely analytic tools, relevant markets are defined to help address specific economic

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[113] *See generally* 2B AREEDA & HOVENKAMP, *supra* note 10, ¶ 539 (providing an extended treatment of the *Cellophane* fallacy); POSNER, *supra* note 24, at 150–51 (same).

[114] *E.g.*, Massey, *supra* note 54, at 323 ("Applying the SSNIP test ignores the fact that a firm may already have market power. However, such considerations are not relevant for defining a market in merger cases. … The cellophane trap means that a different approach is required in abuse of dominance cases."); Werden, *supra* note 10, at 526 (asserting non-applicability of the *Cellophane* fallacy in merger cases). *Cf.* POSNER, *supra* note 24, at 151 (stating that "because the *Cellophane* fallacy 'may seem not to be a problem in a merger case … the criteria for defining the market should be different in monopolization and merger cases,' but noting paradoxes with this conclusion).

[115] *See* 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 23, § 4.1.2, ¶ 1 ("The Agencies apply the SSNIP starting from prices that would likely prevail absent the merger. … If prices are likely to change absent the merger … the Agencies may use anticipated future prices as the benchmark for the test.").

questions. And like any tool, the appropriate market concept for the job depends on the purpose for which it will used.[116] The appropriate market for one question may be inappropriate for another. *Cellophane* illustrates just this.

As noted above, *Cellophane* presented the Court with a theory of monopolization.[117] Possession of monopoly power is an element of this claim, and the purpose of defining a market in *Cellophane* was to help determine whether DuPont already possessed monopoly power.[118] Whether market definition was really needed to address this element is debatable,[119] but insofar as market definition *was* used, the appropriate market concept would have been obtained by asking whether DuPont had sufficient market power to raise its price above the competitive level, at least under assumptions favorable to the claim. The HMT with base price equal to an estimate of Cellophane's competitive price would have validated markets responsive to this question.[120] This is not to say that estimating that competitive price would have been easy.[121] It is simply to observe that reference to the competitive price is what the substantive law demands if market definition is to be helpfully directed to the monopolization theory presented in cases like *Cellophane*.

To make that point another way, what the Court did in *Cellophane* was not so much define the wrong market as define the right market for the wrong question. The HMT with a base price equal to the current price—roughly the test used in the case—validates markets responsive to the following question: what group of competitors would DuPont need to control or collude with in order to further raise the price of its product? This is an interesting question,

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[116] *See* Werden, *supra* note 10, at 516 ("Markets are an analytical tool, and in economics and law as well as in carpentry and auto mechanics the most useful tools are those designed for a specific job.").

[117] The government had originally made claims of attempted monopolization and conspiracy to monopolize as well, but these theories were not before the Court on appeal. *Cellophane*, 351 U.S. 377, 379 (1956).

[118] *Cf. id.* at 380 ("Market delimitation is necessary … to determine whether an alleged monopolist violates [§ 2]. The ultimate consideration in such a determination is whether the defendants control the price and competition in the market for such part of trade or commerce as they are charged with monopolizing."); SULLIVAN, *supra* note 15, at 56 ("The purpose for market definition in a monopoly case is to see whether the alleged monopolist has power to maintain a price substantially higher than costs (or, by lowering price … to drive others out).").

[119] *See generally supra* notes 2, 5 and sources cited therein (proposing the use of estimates derived from residual demand curves in place of market definition).

[120] *See* Werden, *supra* note 106, at 139 ("The relevant question for assessing the firm's market power is whether the cross-elasticities of demand were so great near competitive price levels as to prevent a significant elevation of prices above the competitive level in the first instance.").

[121] *See generally* Lawrence J. White, *Market Power and Market Definition in Monopolization Cases: A Paradigm is Missing*, *in* 2 ISSUES IN COMPETITION LAW AND POLICY 913 (Wayne D. Collins ed., 2008) (discussing this and related challenges in the § 2 context).

and this market concept may well have been appropriate for assessing a claim of attempted monopolization or conspiracy to monopolize.[122] The problem is not, therefore, that the current price is the wrong baseline for every market definition exercise in a § 2 claim. The problem is simply that this base price was not appropriate for the specific claim of *current* monopolization that was before the Court in *Cellophane*.

The same logic applies when selecting the base price for defining relevant markets in merger cases. An opportunity for illustration is the longstanding unease that attaches to whether the *Cellophane* fallacy applies in the merger context. Is the proper HMT base price in merger cases the current price—even if it reflects the ongoing exercise of market power—or is it an estimate of the competitive price?[123] The 2010 Horizontal Merger Guidelines continue a tradition of not really answering this question, instead defining the HMT baseline as the price "that would likely prevail absent the merger."[124] Evidently, this aspires to have a current-price default baseline, but to allow for deviations from this rule in a few ill-defined special cases.[125]

The theory-dependence of market definition provides a simple answer to the choice-of-baseline question. The answer is—once again—that the proper choice of base price depends on the theory of harm. If the concern is that a merger will allow the remaining firms to elevate price above the current level, then the current price is the appropriate baseline against which to define the market. If the concern is that a merger will stabilize or entrench already existing price elevation, then some measure of competitive pricing *but for the ongoing cause of price elevation* is the appropriate baseline. The reason for the difference is the fundamental difference in the question posed. In the case of already ongoing coordination, the economic question in the entrenchment theory is not "what firms would need to coordinate to further raise the price?" Rather, the question is "what firms would need to deviate from coordination

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122 *Cf.* 2B AREEDA & HOVENKAMP, *supra* note 10, ¶539a, at 321 (commenting that relevant markets defined around price increases may be appropriate in attempted monopolization cases).

123 *Compare* Gene C. Schaerr, *The Cellophane Fallacy and the Justice Department's Guidelines for Horizontal Mergers*, 94 YALE L.J. 670 (1985) (suggesting that the Merger Guidelines discriminate in favor of permitting mergers between firms already exercising market power) *with* Werden, *supra* note 10, at 525–26 (suggesting that, because "the ultimate question is whether a merger would create or enhance market power," the current price is the appropriate baseline "[even if it is already] well above competitive levels because of collusion or monopoly.").

124 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 23, § 4.1.2, ¶ 1.

125 *Cf.* Werden, *supra* note 10, at 526 ("The only possible exception [to using current price as the baseline] would be when a merger would strengthen a shaky cartel and prevent price from falling. In this case, a price significantly below the prevailing price could be considered to be a 'likely future' price…").

to effectively depress the price?" Again, an analytically helpful relevant market must be customized to fit the specific theory of anticompetitive harm.

The theory-dependence of market definition also highlights deficiencies in the Guidelines' likely-future-price paradigm. While the Guidelines prescribe the right result in the case of a theory of harm based on price elevation, they mask the reason for this choice of baseline. Use of a current or likely-future-price baseline is only appropriate when the theory of harm is an increase in price above this current or likely-future-price level. If the theory of harm is entrenchment of existing market power, then the appropriate choice of baseline price is something like a competitive price—a result reached awkwardly, if it is reached at all, by the likely-future-price paradigm.

To illustrate, suppose that several firms have settled into a pattern of stable coordination on elevated prices. If two of these firms propose to merge, a possible theory of harm is that the merger will reduce the the likelihood that a future shock would disrupt this pattern of coordination—random disruption being more likely the more independent concerns there are in the coordinated equilibrium.[126] As this theory of harm centers on disruption of coordination, the proper base price for defining the relevant market is some measure of the competitive price but for coordination. The Guidelines appear to recognize this answer, but only through a vague and unexplained exception, rather than by applying the general approach to market definition.[127]

As another illustration, consider the proposed acquisition of a fringe competitor, already in the market, by a dominant firm that has raised its price to the limit that would trigger uncommitted entry by higher-cost firms. An entrenchment theory of harm is that this merger will allow the dominant firm to forestall possible future price depression by the fringe competitor, not that the

[126] We are grateful to Robert Tovsky for suggesting this particular articulation of the theory of anticompetitive entrenchment. For relevant caselaw and scholarly context, see Christopher R. Leslie, *Trust, Distrust, and Antitrust*, 82 TEX. L. REV. 515, 564–95 (2004) (discussing tensions in trust among cartel participants); Jonathan B. Baker, *Mavericks, Mergers, and Exclusion: Proving Coordinated Competitive Effects under the Antitrust Laws*, 77 N.Y. U. L. REV. 135, 163-73 (2002) (discussing the tensions in partial coordination and the role of disruptive "maverick" firms); Am. Needle, Inc. v. Nat'l Football League, 560 U.S. 183, 195 (2010) (focusing on the existence of "separate economic actors pursuing separate economic interests," "independent centers of decisionmaking," and "diversity of entrepreneurial interests" as the catalysts of the "actual or potential competition" that is protected by the antitrust laws).

[127] 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 23, § 4.1.2, ¶ 1 ("If prices might fall absent the merger due to the breakdown of pre-merger coordination, the Agencies may use those lower prices as the benchmark for the test.").

merger will allow the dominant firm to further raise its prices.[128] In defining the relevant market for this theory of harm, the appropriate base price is some estimate of the competitive price. If the Guidelines accommodate this answer,[129] it is only on the conviction that a competitive price "would likely prevail absent the merger,"[130] which oddly predicates willingness to analyze this theory of harm on its own conclusion.

The likely-future-price paradigm is doubly problematic. As shown above, it obscures the logic of selecting a proper HMT base price in merger cases. But its greater fault may be that its framing of market definition seems inadvertently to bias merger analysis against theories of anticompetitive harm alleging entrenchment of market power. Indeed, these cases are rarely brought today, despite both caselaw and statutory authority for mergers to be blocked if they entrench rather than augment existing market power.[131] If entrenchment theories are not used to challenge mergers, that choice should be should be made explicitly as a matter of policy—not because the mechanics of market definition inadvertently preclude bringing such cases.

### C. IMPLICATIONS FOR MARKET DEFINITION

The need to customize market definition to the theory of harm has implications beyond those discussed above.[132] We will not discuss every implication in detail, but two deserve highlighting. First, in addition to clarifying the level of the HMT baseline, the need to customize market definition explains the selection of price concepts in the HMT. Whether a hypothesized price increase

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[128] *See, e.g.*, In the Matter of the Stanley Works, 78 F.T.C. 1023, *31-32 (1971) (noting minimal increase in concentration resulting from a merger but focusing on the elimination of prospective competition and foreclosure of future price reductions as anticompetitive concern), *aff'd* Stanley Works v. FTC, 469 F.2d 498, 505–08 (2d Cir. 1972).

[129] *Cf.* Werden, *supra* note 10, at 526–27 (describing merger cases as focused on the question whether a merger would "create or enhance market power" and thus interpreting deviation from a current-price baseline as limited to a merger that would "strength a shaky cartel").

[130] 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 23, § 4.1.2, ¶ 1; *see also id.* (limiting deviations from the current-price baseline to situations in which "prices are likely to change absent the merger, e.g., because of innovation or entry").

[131] *See* United States v. Philadelphia Nat. Bank, 374 U.S. 321, 365 n.42 ("[I]f concentration is already great, the importance of preventing even slight increases in concentration and so preserving the possibility of eventual deconcentration is correspondingly great."); 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 23, ("The unifying theme of these Guidelines is that mergers should not be permitted to create, enhance, *or entrench market power or to facilitate its exercise*.") (emphasis added); Areeda, *supra* note 10, at 564 ("Merger precedents have been concerned not only with combinations creating new power but also with those reinforcing present power. One need not endorse all the cases making or misusing that point to accept the proposition that Clayton Act Section 7's prophylactic mandate is violated by a merger which reinforces pre-existing monopoly or oligopoly pricing.").

[132] *See* Salop, *supra* note 25, at 194–95 (outlining five analytic traps that can be avoided by explicitly recognizing the theory-dependence of market definition).

should be relative to the immediate price of an intermediate product, to its value-added price, or to the final price of the end product,[133] should be guided by the theory of harm. Second, whereas the 2010 Horizontal Merger Guidelines seem to treat price discrimination as a special case of market definition,[134] price discrimination markets are actually just applications of basic point that market definition should be tailored to the theory of harm. If the theory of harm is market-wide price elevation, there is no need to specify the customer component of the market. If the theory of harm is price elevation to specific customers, then this should be reflected in the relevant market. This follows immediately from the theory-dependence of market definition.

To summarize, a relevant antitrust market should always be customized to fit the specific theory of competitive injury at issue, and courts and advocates should resist the urge to see market definition as a rote or theory-independent process. Nor need they submit to the independent market fallacy. While the Court's commentary on market definition has never been artful, the principle that relevant markets should reflect specific theories of harm comes through. This was clear in *Philadelphia National Bank*, which defined the market by looking to where competitive effects would be direct and immediate.[135] It was reaffirmed in *Indiana Federation of Dentists*, which explained that the point of market definition is to determine "whether an arrangement has the potential for genuine adverse effects on competition."[136] Where a theory of harm has been identified, and to as much specificity as that theory allows, definition of a relevant market should always aim to identify market concepts tailored to the specific injuries alleged in the anticompetitive theory at issue.

## III. THE SINGLE MARKET FALLACY

The *single market fallacy* is the common mistake of assuming each antitrust case involves a single relevant market. Most markets encompass a variety of products, and we are not suggesting that courts have failed to recognize this fact or to allow for multiple product markets where a variety of products are implicated by the facts. Rather, our concern is the assumption that a single definition of the relevant market (or markets) applies in common to every aspect of an antitrust case. The error in this assumption stems from both of the prior fallacies. The existence of a single market is congruent with the assumption of natural, freestanding markets. And the mistake is amplified by a failure to grasp the theory-dependence of relevant markets. When these foundational

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[133] *Cf.* Werden, *supra* note 10, at 534–38 (discussing these types of alternatives).
[134] *See* 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 23, §§ 3, 4.1.4, 4.2.2.
[135] United States v. Philadelphia Nat. Bank, 374 U.S. 321, 357 (1963).
[136] FTC v. Indiana Fed'n of Dentists, 476 U.S. 447, 460 (1986).

errors are kept in mind, the single-market fallacy becomes obvious. A relevant market being nothing but an analytical tool with which to investigate a given theory of harm, the number of potential theories of harm in a fact-pattern sets the upper limit on the number of relevant markets.

While this may seem obvious, evidently the legions of courts, practitioners, and scholars that have battled over selection of *the* relevant market for a case have not found it to be so obvious. Since the inception of antitrust litigation, trial courts have treated market definition as a fact question to be answered definitively by courts: taking advocacy under advisement, but ultimately finding for themselves what the relevant market will be.[137] Antitrust scholars have proven no less fixated on trying to identify unique relevant markets,[138] or at least trying to distill principles for choosing a single market from among the possible alternatives.[139] In each of these examples, the object of attention only makes sense if one starts from the premise that there should be a single, unique relevant market for each inquiry.

A basic understanding of markets compels the conclusion that multiple relevant markets can—and often should—be defined within a single case or investigation.[140] This multiple-market paradigm has great clarifying potential. It also highlights aspects of current practice in need of change. Specifically, the multiple-market paradigm suggests that a separate relevant market should generally be defined for each theory of harm in a trial or investigation. It also suggests a subordinate role for courts and defendants in market definition: the choice of relevant markets should be left to the plaintiff, with courts and defendants limited to the task of testing the validity of whatever markets the plaintiff chooses to propose via the HMT or a related concept. The plaintiff's

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[137] *See, e.g.*, Gough v. Rossmoor Corp., 585 F.2d 381, 389 (9th Cir. 1978) ("Thus in determining the relevant market the courts are not free to accept whatever market is suggested by the plaintiff as fitting most persuasively with his contention that his power to compete effectively has suffered injury."); JBL Enterprises, Inc. v. Jhirmack Enterprises, Inc, 698 F.2d 1011, 1016 (9th Cir. 1983) ("In determining what the field of competition is, courts are not free to accept whatever market is suggested by the plaintiff, but must examine the commercial realities within the industry in question.) (internal quotation marks and citations omitted).

[138] *See, e.g.*, Horowitz, *supra* note 3, at 5 ("[T]he platitude that the geographic market is 'the area of effective competition' fails to provide a comprehensive guide for delineating *the* geographic market that is uniquely relevant for the antitrust issue in question.); Areeda, *supra* note 10, at 584 ("[F]or each such product and region, there can be only a single legally relevant market and not a multiplicity of legal relevant submarkets."); Werden, *supra* note 106, at 194–95 (stating that the smallest market principle means "there is a unique relevant market for every initial candidate market").

[139] *Cf.* Werden, *supra* note 98, at 117 ("Under the Guidelines, there are many markets but generally only one relevant market, and it is determined by the smallest market principle, which holds that the smallest market generally is the relevant market.").

[140] This should not be taken as a suggestion that market definition is always necessary. But *if* market definition would be helpful to analysis, a multiple-market paradigm is appropriate.

choice is not unconstrained in this approach. Any relevant market must satisfy something like the HMT. But where multiple alternative market delineations would satisfy the requirements of the HMT or a comparable market concept, the choice among these should be left to the plaintiff. These may seem like tectonic changes, but they are logical outgrowths of a principled approach to market definition, and are within the bounds of what courts already do today.

## A. MULTIPLICITY OF RELEVANT MARKETS

It often seems to be taken as read that a given antitrust case or investigation should give rise to a single relevant market, or a single set of relevant markets where different products are involved. A single definition of the relevant market is usually assumed to apply to every theory or alternative theory in a case. This is not to say that courts have never defined alternative markets in antitrust cases; some older merger cases multiplied markets with almost comedic abandon.[141] But the modern view is ostensibly that the market definition exercise should result in a single market concept germane to all aspects of a case or investigation,[142] with at most the possible allowance for nested price discrimination markets in special circumstances.[143] This single-market philosophy manifests in several observable practices.

One such practice is for courts to treat market definition as their own responsibility. Not always, but often, antitrust trials play out with the plaintiff and defendant putting forth competing arguments for what the relevant market

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[141] *E.g.*, United States v. Bethlehem Steel Corp, 168 F. Supp. 576, 603 (S.D.N.Y. 1958) (finding relevant markets to include "(1) the iron and steel industry, (2) hot rolled sheets, (3) cold rolled sheets, and (4) hot rolled bars, in (a) the United States as a whole, (b) the northeast quadrant of the United States, (c) Michigan, Ohio, Pennsylvania and New York, (d) Michigan and Ohio, (e) Michigan and (f) Ohio, (5) buttweld pipe, (6) electricweld pipe, (7) seamless pipe, (8) oil field equipment, (9) oil field equipment and supplies, (10) tin plate, and (11) track spikes, in (a) the United States as a whole.").

[142] *E.g.*, Werden, *supra* note 98, at 117 ("Under the Guidelines, there are many markets but generally only *one* relevant market…") (emphasis added); *cf.* 2B AREEDA & HOVENKAMP, *supra* note 10, ¶533, at 266 ("[D]egrees of constraint do in fact vary [but] the 'market' for antitrust purposes is the *one* relevant to the particular legal issue at hand ..."); *see also* F.T.C. v. Whole Foods Mkt., Inc., 548 F.3d 1028, 1036 (D.C. Cir. 2008) ("[T]he FTC may have alternate theories of the merger's anticompetitive harm, depending on inconsistent market definitions... [but] on the merits, the FTC would have to proceed with only one of those theories….").

[143] *See, e.g.*, 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 23, § 4.1.4, ¶ 1 ("If a hypothetical monopolist could profitably target a subset of customers for price increases, the Agencies may identify relevant markets defined around those targeted customers …."); FTC v. Sysco Corp., 113 F. Supp. 3d 1, 40–48 (D.D.C. 2015) (finding both "broadline foodservice distribution" and "broadline foodservice distribution to national customers" to be relevant markets for the case).

should be,[144] with the court deciding which of these definitions prevails.[145] Whatever market the court announces as the outcome of this tournament becomes *the* relevant market for the case.[146]

Closely related to the previous practice is scholarly discussion of market definition as an exercise in selecting the *best* relevant market from among the possible alternatives.[147] The best market, in this approach, is typically understood to mean the market concept that most accurately reflects the market power of the relevant parties.[148] Again, the best or most representative market is taken as *the* relevant market for a given application.

Finally, and related to both of the previous practices, the disfavored status of *Brown Shoe* submarkets appears largely driven by single-market concepts. This is not to say that submarket concepts were sound as originally conceived,

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144 *See, e.g.*, *Sysco*, 113 F. Supp. 3d at 24–25 (describing the competing market definition proposals of the government and defendant); United States v. H & R Block, Inc., 833 F. Supp. 2d 36, 50 (D.D.C. 2011) (same); *see also* Turner, *supra* note 1, at 1150 (describing the typical trial as follows: "you have two protagonists, one on each side, plaintiff and defendant, both seeking to establish the market definition most favorable to them").

145 *See, e.g.*, *supra* note 137 and sources cited therein; FTC v. Arch Coal, Inc., 329 F. Supp. 2d 109, 123 (D.D.C. 2004), case dismissed, No. 04-5291, 2004 WL 2066879 (D.C. Cir. Sept. 15, 2004) (rejecting portions of both plaintiff's and defendant's proposed market definitions); *see also* Turner, *supra* note 1, at 1152 (commenting that if the defendant's market conept would not lead to illegality, and the plaintiff "has not really shown enough to indicate that his market is better, then [the plaintiff] loses."); *Cf.* RUDOLPH J. R. PERITZ, COMPETITION POLICY IN AMERICA: HISTORY, RHETORIC, LAW 211 (2000) ("The first opinion to consider explicitly alternative market definitions and to give reasons for choosing one over the other was Learned Hand's opinion in [*ALCOA*]. The Supreme Court followed Hand's example in [*Cellophane*].).

146 *Cf.* United States v. H & R Block, Inc., 833 F. Supp. 2d 36, 64 (D.D.C. 2011) ("While some inappropriate proposed relevant markets would be ruled out by the critical loss test, the fact that the test could still confirm multiple relevant markets means that the Court must rely on additional evidence in reaching *the single, appropriate market definition*.") (emphasis added); Areeda, *supra* note 10, at 583 (commenting that submarkets allow courts to avoid choosing the relevant market from among alternatives—implying that a choice is necessary in the first place).

147 *E.g.*, Kaplow, *supra* note 2, at 442 (assuming market definition to encompass the rule that "the best market is that which yields the most accurate inference about market power"); Kaplow 2012, *supra* note 5, at 941 ("[I]t is well understood that, for any [market structure] statements to be meaningful, one must look at the market shares in the relevant (best) market.").

148 *E.g.*, Kaplow, *supra* note 2, at 439 ("[Defining a relevant market] involves choosing from among candidate markets that which most accurately depicts the extent of market power."); Areeda, *supra* note 10, at 583–84 (describing useful market definition as "identifying the one product and geographic market that best gives the tribunal insight into the defendant's power with respect to each of his products or regions"); *see also* SULLIVAN, *supra* note 15, at 44 ("Courts in monopolization cases usually begin by defining a single geographic and product market. In most cases the effort is to identify what seems to be … the one market which is most meaningful economically.").

nor that we endorse their occasional abuse in antitrust practice.[149] It is simply to say that the frequent claim that relevant markets and submarkets cannot simultaneously coexist appears to rest on the assumption that different definitions of the markets are always mutual exclusive,[150] another example of the single-market expectation at work.

The irony of all the above examples is that the need for these practices and arguments would rarely arise if unique or best markets really did exist in most antitrust applications. That they do not might have been taken as a sign that economic reality is inconsistent with the expectation of a single best market. This warning unheeded, the existence of alternative plausible market concepts has instead been seen as a challenge to be overcome—with confusion the only result of the effort.

The simultaneous existence of multiple relevant markets flows immediately from economic fundamentals. Since economically meaningful markets are only analytic constructs, and since in antitrust these constructs must be built around specific theories of anticompetitive harm, there will necessarily be a potentially different relevant market for every theory of harm. There will often be additional or alternative theories of harm in a single case or investigation, and when this happens there will be multiple helpful relevant markets to be drawn. Whether these markets overlap, nest, or intersect is of no consequence; each of the multiple relevant markets serves a distinct role.

To see the reason for this, note that to search for the best relevant market gives rise to an obvious question: best for what? Best in the sense of whatever market "most accurately depicts the extent of market power" is no answer.[151] The best market concept for gauging the possibility of unilateral harm from a merger need not correspond to the best market for gauging the possibility of

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[149] *See* Baker, *supra* note 27, at 206 (discussing some of the errors that have resulted when practical indicia factors have been "applied blindly, without reference to the goals of identifying buyer and seller substitution possibilities).

[150] *E.g.*, 2B AREEDA & HOVENKAMP, *supra* note 10, ¶533c, at 269–70 ("The mischief of submarket talk is the frequent supposition that a shoe market and an HQMS submarket can both be simultaneously relevant to appraising the merger of two HQMS producers. Although that is not possible…"); Turner, *supra* note 1, at 1151 ("If you have applied proper analysis in trying to decide what the market is and, for example, you have concluded that price responsiveness among this group of products is so high that they really belong in the same market, that is the end. … Once you have said these products are so closely substitutable they are in the same market, there are no meaningful submarkets."); G. E. Hale & Rosemary D. Hale, *A Line of Commerce: Market Definition in Anti-Merger Cases*, 52 IOWA L. REV. 406, 426 (1966) ("[T]he notion of a submarket is an odd one: either there is or there is not a market in which competition may be affected. … If the line of commerce is men's shoes, it should not also be men's golf shoes: if one boundary is right, the other must be wrong.").

[151] Kaplow, *supra* note 2, at 439.

coordinated price elevation as the result of the same merger. The best market concept for gauging the possibility for modest coordinated price elevation need not be the best market for gauging the possibility of more substantial coordinated price elevation. And the best market for studying the anticompetitive potential of one type of exclusionary conduct need not be the best market for studying another type of conduct. As discussed in Part II, the appropriate definition of a relevant market depends on the specific features of a theory of harm. For each theory of harm implicated by a given fact pattern, a different relevant market will generally need to be drawn to guide analysis.[152] Logical clarity in antitrust requires a multiple-market paradigm.

### B. MULTIPLE MARKETS IN ANTITRUST PRACTICE

A relevant market is an analytical tool for assessing a given theory of harm; and since there may be many theories of harm in a given trial or investigation, there may be multiple helpful relevant markets in the trial or investigation. This simple proposition has remarkable potential to streamline and clarify antitrust practice. We discuss a few important implications below.

#### 1. *Multiple markets by type of harm*

The most obvious reason for defining multiple markets is to tailor relevant market to different theories of harm. This is not an alien concept. The Supreme Court performed such a siloed approach to market definition in *Brown Shoe*, conducting separate relevant market analyses for the vertical and horizontal theories of harm at issue in that case.[153] The D.C. Circuit contemplated a similar separation of market definition by theory of harm in *Microsoft*.[154] But the principle also applies to lower-level differences in the theory of harm.

An example is the definition of relevant markets in horizontal merger cases in which the plaintiff alleges both unilateral and coordinated theories of anticompetitive injury. Despite drawing a sharp distinction between the analysis of unilateral and coordinated effects, the 2010 Horizontal Merger Guidelines can be read to imply that the same relevant market should be used to assess

[152] *Cf.* Pitofsky, *supra* note 1, at 1812–13 ("The tendency to see relevant market definition as an all-or-nothing proposition rather than as an array of estimates with no market description being exactly right has led to the most serious errors in antitrust enforcement."); Easterbrook, *supra* note 4, at 22 ("Usually the search for the 'right' market is a fool's errand. … there may be tens of possible markets, each offering a little insight into conditions of competition.").

[153] Brown Shoe Co. v. United States, 370 U.S. 294, 325–28 (1962) (defining the relevant market for the vertical aspects of the merger); *id.* at 336–39 (defining the relevant market for the horizontal aspects of the merger).

[154] United States v. Microsoft Corp., 253 F.3d 34, 81 (D.C. Cir. 2001) (noting that "[d]efining a market for an attempted monopolization claim involves the same steps as defining a market for a monopoly maintenance claim" before observing that "the District Court never engaged in such an analysis nor entered detailed findings defining what a browser is or what products might constitute substitutes [in its analysis of the government's attempted monopolization claim].").

both of these different theories of harm.[155] Recent merger cases have tended to follow this suggestion.[156]

This is a strange practice, as it is actually unclear when it would *ever* make sense to use the same market concept in analyzing both unilateral effects and coordinated theories of harm. In unilateral effects analysis, there is a strong argument that discrete market definition is unnecessary—the relevant market being an output of the model rather than an input. But in coordinated effects analysis, market definition can never be dispensed with, since it plays the central role of identifying in the first instance the groups of producers that could achieve anticompetitive outcomes through coordination, and whose coordination incentives must therefore be considered.[157] It is natural and intuitive to define a different relevant market for purposes of assessing each different theory of anticompetitive harm.

The contrary practice, though common, is unnatural and unintuitive. There is nothing to be gained, and much to be lost, from trying to force a compromise between a market focused on the loss of competition between merging firms, and a market focused on the potential for coordination among the remaining firms in the market.[158] Worse yet is the possibility that a viable theory of harm might be marginalized or omitted in order to protect the market concept favorable to an alternative theory of harm. Nothing could be more flawed than forcing an antitrust plaintiff to decline to allege coordinated effects because

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[155] The Guidelines do not specifically oppose the definition of alternative relevant markets for alternative theories of harm. They simply do not discuss this possibility at all. *See generally* 2010 MERGER GUIDELINES, *supra* note 23, §§ 4, 6–7. This omission could be read to suggest the (improper) norm that a common relevant market should apply across all alternative theories of harm. *See infra* note 159 and accompanying text (discussing one way that this single-market fallacy could hinder sound antitrust analysis).

[156] *E.g.*, United States v. H & R Block, Inc., 833 F. Supp. 2d 36, 50–71 (D.D.C. 2011) (defining the same relevant market for both unilateral and coordinated effects analysis); FTC v. CCC Holdings Inc., 605 F. Supp. 2d 26, 38–44 (D.D.C. 2009) (same).

[157] *Compare* Joseph Farrell & Carl Shapiro, *Antitrust Evaluation of Horizontal Mergers: An Economic Alternative to Market Definition*, B.E. J. OF THEORETICAL ECON., March 2010, at 1 (describing definition of a relevant market as "clumsy and inaccurate in industries with differentiated products where the theory of harm is related to unilateral (rather than coordinated) effects)") *with* J. THOMAS ROSCH, LITIGATING MERGER CHALLENGES: LESSONS LEARNED 2 (Remarks Presented at the Bates White Fifth Annual Antitrust Conference, Washington, D.C., June 2, 2008), *reproduced at* 5 Health Care and Antitrust L. Appendix E165 (2018) ("A coordinated effects challenge requires an assessment of who is 'in' and 'out' of a market. Only once the market participants have been identified, can one assess the likelihood that a merger will facilitate the coordination of pricing or output decisions and thus substantially lessen competition.").

[158] See Baker, *supra* note 27, at 216 ("A market definition analyzing the loss of localized competition may well be unduly narrow for analyzing the likelihood of post-merger coordination, even though the same economic force, buyer substitution, is at stake in each.").

the relevant market corresponding to that theory of harm is broader than the relevant market implied by an additional or alternative unilateral-effects theory.[159] Multiple relevant markets can and should be defined to focus analysis and avoid such unnecessary and self-defeating compromises.

### 2. *Multiple markets within a type of harm*

By the same logic, multiple relevant markets can be defined within a given type of anticompetitive harm. This point was foreshadowed in our earlier discussion of how market definition depends on the implied magnitude of the competitive effect corresponding to a theory of harm.[160] To illustrate, suppose that six producers of differentiated products could, if united in a cartel, maximize profits by raising prices 10 percent above prevailing levels; suppose further that three of these producers make products of closer similarity to each other than to the others, and that these three could, if alone united in a cartel, maximize profits by raising prices 5 percent above prevailing levels.[161] What is the appropriate definition of the relevant market for assessing possible coordination resulting from a merger of two of the three close competitors?

There are at least two possible theories of harm: (1) modest potential price elevation resulting from coordination among the two remaining close competitors, and (2) greater potential price elevation resulting from coordination among the five remaining competitors overall. While a finding of likely harm on the latter theory would obviate consideration of the former, it does not follow that the latter theory is better or the only antitrust concern implicated by these facts. Proper analysis of the competitive effects of this merger requires separate consideration of *both* theories of harm.

While specific economic conditions are needed to bring about this type of tiered system of price constraints, such conditions are not impossible,[162] and might even be descriptive in some cases.[163] Insofar as these conditions arise,

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[159] *Cf.* Carlton, *supra* note 14, at 621 (discussing the different but related practice of agencies concentrating on unilateral effects analysis "when standard 'coordinated effects' analysis based on market definition implies a very narrow market that might make agencies or courts uncomfortable for advocacy purposes.").

[160] *See* Part II.B.1.

[161] This hypothetical is a variation on a puzzle described by Areeda and Hovenkamp, itself based on prior discussion by Baker, Bresnahan, and others. *See* 2B AREEDA & HOVENKAMP, *supra* note 10, ¶537d, at 311–12 and sources cited therein.

[162] *See supra* note 107 (discussing the tiered constraints that evidently beset sugar producers).

[163] *See* HERBERT HOVENKAMP, FEDERAL ANTITRUST POLICY § 3.2c, at 118 (5th ed. 2016) ("The existence of a relatively large relevant market does not preclude the existence of smaller relevant markets within it."); *id.* at 118–19 (discussing how market concepts can be diagramed as concentric or overlapping circles, each representing a potential relevant market); SULLIVAN, *supra* note 15, at 72 ("The position of any seller can be [diagrammatically] represented within a series of concentric circles, each representing groups of other sellers which affect the subject seller less and less directly.").

to insist, as modern market definition practice seems to do, that one market concept or another should be chosen as *the* relevant market can only obscure the analysis. Harm in a broad market deserves no more consideration than harm in a narrow market.[164] If both theories of harm are possible, then both deserve consideration.[165] And if market definition is to aid in this consideration, then each theory should be assessed within the context of a corresponding relevant market.

### C. IMPLICATIONS FOR CHOICE OF MARKET

A question that might follow from the previous discussion is how an antitrust violation should be defined in the absence of a singular relevant market concept. What should happen if analysis suggests that anticompetitive injury has occurred or is likely to occur in some relevant markets, but not in others? Special cases like out-of-market efficiencies aside,[166] the answer is that injury in any properly defined relevant market is sufficient to establish a violation of the antitrust laws.[167] This has further implications for market definition.

First, an immediate corollary is that market definition should largely be left to the antitrust plaintiff. Since proof of anticompetitive injury in any relevant market is sufficient, it is no answer for a court or defendant to point to other alterative market definitions in which harm did not or likely would not occur. If injury is sufficiently proved in the plaintiff's choice of market, that ends the

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[164] *See* Baker *supra* note 27, at 207 ("To the extent this slogan [there are no submarkets, only markets] suggests that when a broad aggregation of products constitutes a market, a narrower collection cannot also do so, it misleads."); Werden, *supra* note 10, at 532 ("[I]t need not be the case that the smallest market is a better basis for predicting the likelihood of collusion than a slightly larger market.").

[165] *See* Baker, *supra* note 11, at 148 ("Recognizing the possibility of multiple markets in which the competitive effects of firm conduct could be evaluated allows for more accurate targeting of the competitive effects analysis in each case. It is appropriate to analyze firm conduct in any or all relevant markets in which harm to competition may be found.").

[166] *See* 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 23, § 10, ¶ 6 n.14 (discussing efficiencies arising outside of the relevant market); *see also* Ohio v. Am. Express Co., 138 S. Ct. 2274, 2282–83 (2018) (discussing related complications in two-sided markets).

[167] *See supra* note 165; 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 23, § 10, ¶ 6 n.14 ("The Agencies normally assess competition in each relevant market affected by a merger independently and normally will challenge the merger if it is likely to be anticompetitive in any relevant market."); *see also* Hovenkamp & Shapiro, *supra* note 9, at 1999 ("[T]he government should be entitled to the structural presumption if the merger causes the requisite increase in concentration in any properly defined relevant market. Even if the defense can identify an alternative relevant market (whether broader or narrower) in which the level or increase in concentration is insufficient to trigger the structural presumption, that showing does not negate or rebut the presumption.").

inquiry.[168] This relieves antitrust plaintiffs of the burden of proving more than potential injury in a choice of relevant market.[169]

Second, and closely related to the previous comment, the "smallest market principle" should be deemphasized in a multiple-market approach. A charitable reading of this principle is that it approximates the previous comment in a single-market paradigm—suggesting that if anticompetitive harm is possible in a narrow market, then this theory of harm should not be ignored simply because harm would not be possible in some broader market. A less charitable reading is that the smallest market principle represents a crude heuristic for reducing the set of possible relevant markets to a single choice that is more likely than others to reflect common theories of anticompetitive harm.[170] Either way, the principle is redundant in a proper understanding of market definition. The irrelevance of alternative broader markets is explained above; the smallest market principle is not needed to reach this result. And leaving the choice of relevant markets to the plaintiff obviates the need to pre-guess which market concepts might best fit the theories of harm brought forth by the plaintiff in a given case. Providing plaintiffs with flexibility over the choice of relevant markets allows analysis to focus on the market concepts that are actually relevant to the specific theories of harm at issue in a given dispute.

Third, anticipating a possible reaction to the last comment, we deny that allowing antitrust plaintiffs to select any relevant market satisfying the HMT test allows the plaintiff to gerrymander an artificial and unrealistic market.[171]

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[168] This is obviously true at the pleading stage as a point of civil procedure. A plaintiff does not fail to state a claim for relief, for example, because some alternative definition of the market may be possible. *See* FED. R. CIV. PRO. 12(b)(6). Our point is that the same is true at the merits stage. If the plaintiff's proposal of a Cellophane market would be valid under a proper application of the HMT, it is immaterial that a broader all-flexible-wrapping-materials market might also state a valid relevant market.

[169] *Cf.* SULLIVAN, *supra* note 15, at 64 ("Economic theory, sensitively utilized, often suggests that there is no one 'right' market, but congeries of interlinked 'markets,' … Thus, the party asserting monopoly should have no burden other than that of showing a market which is plausible in the sense that those included within it have a clear and substantial commercial advantage over those who are excluded from it in selling to a designated class of customers.").

[170] *See* 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 23, § 4.1.1, ¶ 5 ("Because the relative competitive significance of more distant substitutes is apt to be overstated by their share of sales, when the Agencies rely on market shares and concentration, they usually do so in the smallest relevant market satisfying the hypothetical monopolist test."); Werden 2013, *supra* note 7, at 742 ("Standardization is accomplished with the help of the 'smallest market principle,' holding that, of the markets that could be delineated around some starting product or location, the relevant market is, roughly, the narrowest one …".).

[171] *Cf.* Brown Shoe Co. v. United States, 370 U.S. 294, 368 (1962) ("If the Government were permitted to choose its 'line of commerce' it could presumably draw the market narrowly in a case that turns on the existence vel non of monopoly power and draw it broadly when the question is whether both parties to a merger are within the same competitive market."); POSNER,

As already explained in Part I.C, antitrust markets are not real or observable objects. *Every* market is therefore in some sense artificial, and to criticize *any* market as artificial or gerrymandered is a category mistake.[172] As already explained in Part II.A, a relevant market—validated by the HMT or another comparable standard—has demonstrated the potential for competitive injury, at least under assumptions favorable to the theory of harm. This leaves no room for objection to any valid relevant market chosen by the plaintiff. So long as an antitrust injury is possible within the proposed market, there is no basis or excuse for refusing to consider it.[173]

Nor is there reason to waste time or attention on claims of gerrymandering, better alternative markets, or any other facet of the single market fallacy. As already noted, there is precedent for defining multiple relevant markets where analytically helpful,[174] and all that we argue here is that multiple market concepts are often helpful. Courts have never been prohibited from accepting any valid market proposed by the plaintiff.[175] Nor have courts ever been bound by the smallest market principle or any other rote heuristic for defining relevant markets.[176] To the contrary, in determining whether an arrangement has the "potential for genuine adverse effects on competition,"[177] a court must be able

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*supra* note 24, at 145 ("Given enough flexibility in market definition, high concentration becomes ubiquitous and a surprising number of innocuous mergers can be made to appear dangerously monopolistic."); Werden, *supra* note 10, at 532 ("[I]f the Guidelines permitted the exercise of considerable discretion in selecting the relevant market, there would be considerable potential for gerrymandering.").

172 *See supra* notes 76–77 and accompanying text.

173 United States v. Pabst Brewing Co., 384 U.S. 546, 549 (1966) ("[W]hen the Government brings an action under [§ 7] it must, according to the language of the statute, prove no more than that ... [the] effect of the merger may be substantially to lessen competition ... in any line of commerce '*in any section of the country*.' ... The language of this section requires merely that the Government prove the merger may have a substantial anticompetitive effect somewhere in the United States.). *See* Carlton, *supra* note 14, at 638 ("While I sense that enforcement agencies may be reluctant to define [narrow markets]—for fear a court will think the definition is artificial—my view is that one should use and defend a narrow market if it is indeed appropriate.").

174 *See supra* note 153 and accompanying text.

175 *See* United States v. Aetna Inc., 240 F. Supp. 3d 1, 39–40 (D.D.C. 2017) (The Guidelines make clear that the hypothetical monopolist test does not aim to identify a 'single relevant market.' ... [T]he government '*may evaluate a merger in any relevant market satisfying the [hypothetical monopolist] test*,' and will 'usually do so in the smallest' market that qualifies. ... The government has operated within those parameters here.) (emphasis added).

176 *See* Baker, *supra* note 27, at 207 ("Although a court might often focus its concern and analysis on the smallest such market, as the Merger Guidelines 'generally' recommend, a court is entitled to identify a violation of the antitrust laws based on harmful effects in any market, even one that is not the smallest.").

177 *See* FTC v. Indiana Fed'n of Dentists, 476 U.S. 447, 460 (1986).

to consider any market in which anticompetitive harm could arise. A multiple-market paradigm is thus not only permissible; it is required.

## IV. FOLLOWING THE LOGIC OF MARKET DEFINITION

Our objective has been to explain the core logic of market definition and to expose some troubling errors in market definition practice. Having addressed that objective, we offer brief remarks on how an understanding of the logic of market definition affects the practice of market definition and some related aspects of antitrust law.

### A. NEED FOR MARKET DEFINITION

A peculiarly persistent artifact of the Supreme Court's early work on market definition is the vestigial notion that market definition must be performed in every case, or at least every merger case.[178] One version of this idea welds market definition to the substantiality of an antitrust injury, a subject we address in Part IV.B below. Another version casts market definition as the indelible starting point of antitrust analysis.[179] Another interprets market definition as a necessary element in claim for relief, a plaintiff's failure to allege a relevant market being grounds for dismissal.[180] Each of these ideas is founded on a confused notion of what relevant markets are and what role they play in antitrust analysis.

As we have explained, relevant markets are analytical tools for evaluating specific theories of anticompetitive harm.[181] The theory-dependence of relevant markets invalidates the notion that market definition must be the starting point of antitrust analysis. Even if it were possible to define a relevant market without first considering potential theories of harm—and it is not—such rote prioritization would only confuse analysis[182] and distract attention from the

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[178] *See* FTC v. Whole Foods Mkt., Inc., 548 F.3d 1028, 1036 (D.C. Cir. 2008) (Brown, C.J.) ("Inexplicably, the FTC now asserts a market definition is not necessary in a § 7 case … in contravention of the statute itself. …"); Keyte & Schwartz, *supra* note 73, at 589 ("[M]arket definition unquestionably remains a statutory predicate to finding a Section 7 violation").

[179] *E.g.*, FTC v. Cardinal Health, Inc., 12 F. Supp. 2d 34, 45 (D.D.C. 1998) ("Defining the relevant market is the starting point for any merger analysis."); Walker Process Equip., Inc. v. Food Mach. & Chem. Corp., 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.").

[180] *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, or New York's Donnelly Act, a plaintiff must allege a plausible relevant market in which competition will be impaired."); Queen City Pizza, Inc. v. Domino's Pizza, Inc., 124 F.3d 430, 436 (3d Cir. 1997) ("Where the plaintiff fails to define its proposed relevant market … a motion to dismiss may be granted.").

[181] *See* Part II.A (explaining this point in greater detail).

[182] *See* Salop, *supra* note 25, at 189 (explaining that the "threshold test approach is fraught with potential for error" because it is generally "impossible to evaluate market power accurately without understanding the conduct and effect claims at issue and analyzing market power in the

ultimate question whether injury has occurred or is likely to occur.[183] Understanding the logic of market definition also invalidates the idea that a claim for antitrust relief requires alleging a relevant market. What a relevant market does is identify a group of transactions in which competitive injury could occur, at least under conditions favorable to the theory of harm. Thus, at the pleading stage, allegation of a relevant market is no more than explanatory context for the allegation of competitive injury itself.[184] If injury has otherwise been adequately plead, nothing but hollow formalism is advanced by insisting on separate allegation of a relevant market.

In sum, the logic of market definition clarifies that market definition can be a useful, but not a necessary, step in antitrust analysis. The Supreme Court recognized as much when it said that "Proof of the section of the country where the anticompetitive effect exists is entirely subsidiary to the crucial question … whether a merger may substantially lessen competition anywhere in the United States."[185] The *per se* rules under § 1 of the Sherman Act exemplify this logic. Cases like *Staples I*, show how something akin to direct proof of anticompetitive injury may make separate market definition redundant,[186] a proposition with academic support.[187] With this and other doctrinal support for omitting market definition where appropriate,[188] there is no need for courts or litigants to waste time and resources insisting to the contrary.

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context of those claims."); *id.* at 198 (observing that the use of market definition as a threshold test can lead to a confused conclusion that a firm lacks market power when the very conduct at question is targeted at allowing the firm to *obtain* such market power).

[183] *See* Rosch, *supra* note 157, at 1 ("Judges have also often focused on market definition as a "threshold issue" in merger litigation. I would suggest this is a mistake. A focus on market definition risks obscuring the ultimate question under Section 7 of the Clayton Act, which is whether the transaction is likely to substantially lessen competition.").

[184] *Cf.* Carlton, *supra* note 14, at 626 ("[A] finding that a merger will have an anticompetitive effect implies that competition in a particular economic market would be harmed. Viewed in this way, an analysis that identifies an anticompetitive effect should be viewed as defining a market in which a merger harms consumers."); Kaplow 2012, *supra* note 5, at 930 ("[I]f one insists on market definition, one can satisfy such a formal doctrinal requirement by working backwards-which it appears courts and enforcement agencies already sometimes do…").

[185] United States v. Pabst Brewing Co., 384 U.S. 546, 549–50 (1966).

[186] FTC v. Staples, Inc., 970 F. Supp. 1066, 1075–76 (D.D.C. 1997) (noting substantial price differences depending on which office supply superstores competed in a given locality in concluding that a merger of Staples and Office Depot would likely harm consumers).

[187] *See* 2B AREEDA & HOVENKAMP, *supra* note 10, ¶ 521 (commenting that market definition is unnecessary if anticompetitive effects are directly observable); *see also* John B. Kirkwood, *Market Power and Antitrust Enforcement*, 98 B. U. L. REV. 1169 (suggesting how market power may be inferred from the likely competitive effects of challenged conduct).

[188] *See* FTC v. Indiana Fed'n of Dentists, 476 U.S. 447, 460–61 (1986) ("Since the purpose of the inquiries into 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,

### B. SUBSTANTIALITY OF INJURY

Closely related to arguments that market definition is necessary is the notion that market definition ensures an injury is substantial enough to warrant relief under the antitrust laws. This thinking appears to be derived from a bald proposition in *General Motors*: "Determination of the relevant market is a necessary predicate to a finding of a violation of the Clayton Act because the threatened monopoly must be one which will substantially lessen competition 'within the area of effective competition.'"[189]

The vitality of this language in modern opinions is disproportionate to its threadbare rationale. In the protectionist context of merger review in the 1950s and 1960s, a lay conception of the market might have helped to determine which competitors required antitrust protection.[190] But under the modern consumer-welfare standard, defining a relevant market has negligible value in assessing or assuring the substantiality of antitrust injury.

To illustrate, consider a common justification for relying on a hypothetical price increase of at least 5% when defining relevant markets under the HMT. While the size of this price increase is not intended to signify a tolerance level for antitrust enforcement,[191] the usual argument for using a *significant* price increase to test a relevant market under the HMT is transparently just that. The Areeda & Hovenkamp treatise explains the typical thinking:

> A "significant" price increase for market definition purposes must be large enough to suggest that antitrust enforcement will be worth its cost while minimizing interference with private activity that is generally desirable or unavoidable though it creates small amounts of market power.[192]

Whether a *de minimis* standard is necessary is a debatable proposition,[193] but even assuming that it is, there is little defense for implementing it as a

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such as a reduction of output, can obviate the need for an inquiry into market power, which is but a surrogate for detrimental effects.") (internal citations and quotation marks omitted); *see also* Ball Mem'l Hosp., Inc. v. Mut. Hosp. Ins., Inc., 784 F.2d 1325, 1336 (7th Cir. 1986) ("Market share is just a way of estimating market power, which is the ultimate consideration. When there are better ways to estimate market power, the court should use them"); Allen-Myland, Inc. v. Int'l Bus. Machines Corp., 33 F.3d 194, 209 (3d Cir. 1994) (same).

189 United States v. E. I. du Pont de Nemours & Co., 353 U.S. 586, 593 (1957).

190 *See supra* notes 38–43 and accompanying text.

191 *See supra* note 101 and accompanying text.

192 2B AREEDA & HOVENKAMP, *supra* note 10, ¶537a, at 306.

193 One wonders, for example, why private plaintiffs or enforcement agencies need the guidance of a *de minimis* standard to aid them in efficiently allocating their own resources. Perhaps antitrust defendants deserve the protection of a *de minimis* standard as an assurance that small anticompetitive injuries will not result in investigations or litigation. But even if this is accepted,

minimum percentage price-increase in market definition. That approach has two flaws. First, as noted earlier, the ultimate concern of a *de minimis* requirement is the size of the competitive effect—and this has little correspondence with the size of hypothesized price increase in something like the HMT.[194] Second, if indeed some fixed quantity of harm were needed to justify relief, that should be tested by a measure of total harm, not percentage price increase. A 1% increase in the price of $100,000,000 in transactions would seem a far greater social concern than a 100% increase in the price of $1,000 in transactions. That a percentage price increase, alone, says so little about the social significance of potential harm, should arrest any suggestion that relevant markets defined around less than 5% hypothetical price increases are somehow categorically unworthy of antitrust scrutiny or attention.

In carpentry, a drill is a poor substitute for a hammer. So, too, with market definition and the substantiality of antitrust injury. Relevant markets are tools, but they are not tools for assessing the substantiality of injury, and they should not be distorted to try to serve this improper purpose.

### C. TWO-SIDED PLATFORMS

With courts increasingly being required to apply antitrust law to two-sided platforms,[195] the question naturally arises whether our approach has anything to say about the appropriate definition of relevant markets in this context. The salience of the question was underscored by the Supreme Court's decision in *Ohio v. American Express*,[196] delineating a controversial relevant market in a platform context, and by related scholarly commentary asserting that standard market definition approaches are inappropriate where platform competition is involved.[197] The answer is that our approach to market definition is entirely applicable in the two-sided platform context. The unique features of platform competition must surely be accounted for, but the basic logic of market definition remains unchanged.

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it is not obvious how any given choice of threshold would adequately protect defendant's interests without also creating a vehicle for the accretion of market power through series of individually modest anticompetitive acts.

[194] *See supra* notes 106, 105 and accompanying text.

[195] *See, e.g.*, Ohio v. Am. Express Co., 138 S. Ct. 2274 (2018) (involving an antitrust claim involving American Express's credit payment platform), Meyer v. Kalanick, 174 F. Supp. 3d 817, 819 (S.D.N.Y. 2016) (involving an antitrust claim involving Uber's ride sharing platform).

[196] *American Express*, 138 S. Ct. at 2286 (holding that "courts must include both side of the platform … when defining the credit-card market.").

[197] *See, e.g.*, David S. Evans, *Two-Sided Market Definition*, *in* MARKET DEFINITION IN ANTITRUST: THEORY AND CASE STUDIES ch. XI § D ¶ 1 (2012) ("The standard approaches to market definition do not apply to two-sided markets without significant modification. Even the two-sided versions of these approaches should be used with caution.")

*American Express* illustrates how problems can arise when the basic logic of market definition is wrongly assumed to change between different contexts and applications. The plaintiffs in this case alleged that "anti-steering" provisions in American Express (Amex) merchant contracts constituted anticompetitive vertical restraints under § 1 of the Sherman Act.[198] These provisions prohibited merchants from "steering" customers toward the use of competing credit cards, even when those competing cards charged lower merchant fees which might have been shared with the customer in the form of a lower purchase price.[199] Focusing on the two-sided character of credit-card-network platforms, the majority held that "courts must include both sides of the platform—merchants and cardholders—when defining the credit-card market."[200]

The majority opinion in *American Express* is peculiar in many respects and is marred by both substantive and procedural errors.[201] For present purposes, our only interest is the confusion displayed by the majority opinion regarding market definition in the two-sided platform context. Perhaps distracted by the apparent novelty of the setting, the opinion deviated from appropriate market definition principles in several important respects.

First, the majority opinion exhibits the natural market fallacy. After reciting the naturalistic platitude that markets must "reflect" and "correspond to the commercial realities of the industry,"[202] the opinion goes on to hold that, at least where credit card networks are implicated, relevant markets must include both the merchant and cardholder sides of the market.[203] The statement betrays its naturalistic underpinnings. Categorical statements about how relevant markets should be defined in a given "industry" epitomize the confusion of lay concepts of industry with antitrust relevant markets. As already explained, relevant markets cannot be defined except by reference to a given theory of

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198 Ohio v. Am. Express Co., 138 S. Ct. 2274, 2282–83 (2018).

199 *Id.* at 2282–83, 2288 (describing Amex's anti-steering provision); Herbert Hovenkamp, *Platforms and The Rule of Reason: The* American Express *Case*, 2019 COLUM. BUS. L. REV. 35, 53, 77–78 (2019) (providing a clear explanation of how both customers and merchants could have shared the benefits of having customers "steered" to lower-merchant-fee cards.).

200 *American Express*, 138 S. Ct. at 2286.

201 *See generally* Hovenkamp, *supra* note 199 (noting that the majority opinion contained only a single reference to the record, ignored without disrupting findings of fact that directly contradicted its conclusions, and cited a complex academic literature while providing almost no analysis of how that literature applied to the particular facts of the case); John B. Kirkwood, *Antitrust Policy for Two-Sided Platforms: The Failure of American Express and the Path Forward*, CARDOZO L. REV. (forthcoming), *available at* https://ssrn.com/abstract=3346776 (noting these and other substantive problems with the majority opinion).

202 *American Express*, 138 S. Ct. at 2285 (internal citations and markup omitted).

203 *See supra* note 200 and accompanying text; *see also id.* at 2286 (ostensibly expanding this holding to cover a class of "two-sided transaction platforms").

anticompetitive harm. To define a market on the basis of industry or competitive classifications (*credit card networks* or *two-sided transaction platforms*), without regard to the theory of harm, is to commit a category error.

Second, the opinion illustrates the effects of the independent market fallacy. The theory of anticompetitive harm at issue was that Amex's anti-steering provisions were raising merchant fees,[204] which, in turn, were raising the retail prices paid by consumers.[205] The undisturbed factual record suggests no reason why a relevant market narrowly defined around the merchant side of the credit-card transaction would have failed something like the HMT.[206] To the contrary, the record reveals direct evidence of the alleged injury, validating a merchant-side relevant market by implication.[207] While the majority is certainly correct that network effects must be accounted for in the antitrust analysis of this case, that need does not require both the merchant and cardholder sides of the platform to be included in the relevant market—at least, not under the specific theory of harm at issue in this case.[208]

Third, the majority opinion displays the single market fallacy. While the plaintiff's proposed market concept would evidently have satisfied something like the HMT and was thus a valid relevant market,[209] the majority rejected this valid choice of relevant market in favor of a different market more to the majority's liking. In fairness, the point was evidently to account for the possibility that injury to one group of consumers might be offset by a benefit to

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[204] United States v. Am. Exp. Co., 88 F. Supp. 3d 143, 215 (E.D.N.Y. 2015) (finding as fact that the anti-steering provisions "allowed all four networks to raise their swipe fees" and "resulted in higher all-in merchant prices across the network service market…").

[205] *Id.* at 216 (finding as fact that "[m]erchants facing increased [fees] will pass most, if not all, of their additional costs along to their customers in the form of higher retail prices.").

[206] *See American Express*, 138 S. Ct. at 2293–94 (Breyer J., dissenting) (noting the majority's lack of discussion of the factual record and summarizing the district court's findings).

[207] *See* Hovenkamp, *supra* note 199, at 53 (noting that record evidence and basic economic inferences on the support of it "established unambiguously" that the anti-steering provisions led to "higher prices across the board").

[208] *See* Dennis W. Carlton & Ralph A. Winter, *Vertical Most-Favored-Nation Restraints and Credit Card No-Surcharge Rules*, 61 J. L. & ECON. 215, 217–18, (2018) (commenting on the false belief that explicit accounting for two-sidedness is essential to competitive effects analysis and stating that "[d]espite its two-sided property, one can analyze a credit card market using the vertical structure of a one-sided market."); *id.* at 242 ("The two-sidedness of credit card markets does not require a new set of economic principles for assessing competition policy because the difference between the credit card setting and a conventional one-sided market is essentially a matter of labeling."); Hovenkamp, *supra* note 199, at 49 (noting that a court can always consider network effects as part of its competitive effects analysis "[w]ithout relying on an economically incoherent conception of a relevant market.").

[209] *See supra* note 169 and accompanying text.

another group.[210] But even assuming that a benefit to one group would justify otherwise anticompetitive injury to another, the majority was not compelled to conflate both sides of the credit card platform into a single relevant market. Nothing about the plaintiff's proposed market precluded the consideration of offsetting benefits.[211] To the contrary, considering the alleged injury in light of the plaintiff's proposed market makes clear that the effects of Amex's anti-steering provisions necessarily accrued to the detriment of *both* merchants and marginal cardholders in this setting.[212]

The antitrust implications of two-sided platforms are still being worked out in a rapidly growing scholarly literature and it may be some time before consensus forms around the appropriate frameworks for analysis in this setting. While the errors of *American Express* may seem like obstacles to the future maturation of this area of antitrust practice, perhaps the opinion will be limited to its narrow facts or treated as *sui generis* in the arc of the Court's recent and more soundly reasoned decisions. Either way, *American Express* illustrates the dangers of straying from fundamentals in market definition, especially in the context of new and complex competitive environments.

### D. DIFFICULTIES & DATA LIMITATIONS

Finally, we wish to recognize a reasonable critique of market definition as we describe it in this article: that it is too complicated and too demanding to be used in many practical applications. A common version of this critique is that concepts like the HMT are simply too sophisticated for the minds of generalist judges and juries, leading to unpredictable results in practice.[213] A related idea is that sophisticated market definition is possible within the federal

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[210] *See American Express*, 138 S. Ct. at 2286 ("Price increases on one side of the platform … do not suggest anticompetitive effects without some evidence that they have increased the overall cost of the platform's services.").

[211] *See* Kirkwood, *supra* note 201, at § C.3 (noting that it is possible to define the relevant market as one side of a transaction while still considering effects on the other side).

[212] Intuitively, if a cardholder valued the perks of using the Amex card more than the lower effective price that a steering practice allowed, that cardholder would simply use the Amex card despite the steering effort. The actual effect of the anti-steering provision is to stop some cardholders from switching to other cards when their revealed preference is for a lower-price transaction over the recoupment of Amex perks. *See* Hovenkamp, *supra* note 199 (providing a more detailed explanation of this point).

[213] *See, e.g.*, Gopal Das Varma, *Market Definition, Upward Pricing Pressure, and the Role of Courts: A Response to Carlton and Israel*, ANTITRUST SOURCE 1 (Dec. 2010) ("[M]any courts—presided over by generalist judges—lack the economic sophistication that is required to evaluate the merits of competing econometric analyses of market definition that are submitted by opposing experts."); J. Douglas Richards, *Is Market Definition Necessary in Sherman Act Cases When Anticompetitive Effects Can Be Shown with Direct Evidence*, 26 ANTITRUST 53, 57 (2012) ("[I]n retrospective analysis of the effects of past conduct, direct evidence of the actual effects of such conduct is often more probative than comparatively confusing and misleading market definition and market share analysis."); Rosch, *supra* note 157, at 3 ("A case focused on

antitrust agencies, but that different techniques are needed when disputes enter the generalist legal system.[214] Another version of the critique amounts to a pragmatic claim that data limitations often constrain and dictate the scope of market definition more than any consideration of economic theory.[215] We acknowledge the challenges raised in these critiques, and we do not endeavor to refute these essentially empirical claims about what judges and juries understand and what available data allow.

Nor need we. Because even if all these claims were true, practicing market definition without an understanding of its logical underpinnings would still be inappropriate and dangerous. Thus, the challenge of coping with data limitations may well affect the plaintiff's choice of relevant market, but a proper understanding of market definition would allow the plaintiff to propose whatever valid market the imperfect data support, and would foreclose complaints that such a market is unrealistic or defective because it does not conform to an alternative for which there is insufficient data. The claim that market definition practice before the agencies differs from how it is practiced before the courts may well be true, but only underscores the need for a coherent rationale in terms of which to justify the choice of a relevant market. The challenge of guiding generalist judges and juries through the intricacies of market definition will continue to weigh on litigants, but that challenge only enhances the importance of exposing common fallacies and misperceptions to help triers of fact discharge their market definition duties. The errors of *American Express* illustrate this need quite vividly.

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market definition risks getting bogged down in esoteric fights over the SSNIP test. Asking a customer witness whether they would have switched to an alternative in the face of a 5% price increase is arguably not a persuasive line of questioning."); *see also* SULLIVAN, *supra* note 15, at 63 (discussing concerns about the adjudicatory institution's competence to make the kinds of judgements that sophisticated economic theory demands).

[214] *Cf.* D. Daniel Sokol, *Antitrust, Institutions, and Merger Control*, 17 GEO. MASON L. REV. 1055, 1100–1104 (2010) (discussing how merger review before the federal antitrust agencies differs from purely adjudicatory antitrust practice); Daniel A. Crane, *Technocracy and Antitrust*, 86 TEX. L. REV. 1159, 1194–96 (2008) (similar); Wellford & Wells, *supra* note 78, at 2, 11 (describing growing divergence between merger advocacy before the courts and Agencies).

[215] *See, e.g.*, 2B AREEDA & HOVENKAMP, supra note 10, ¶ 530a, at 236 ("As a matter of practicality… the only data we ever have is historical. … To at least some extent, future behavior must be inferred from historical observations."); Werden 2013, *supra* note 7, at 742 n.59 ("In practice … relevant markets tend to be delineated on the basis of natural market boundaries and hence are broader than absolutely necessary to satisfy the test."); SULLIVAN, *supra* note 15, at 61 ("Another pragmatic factor is the availability of data. One can only count things for which there are numbers. Unless exhaustive statistical surveys are to be done the parties must utilize either the data gathered by the census taker, or the business records of firms or trade associations, or both. Markets, then, will tend to be defined the way the Bureau of the Census has defined them, or the way firms have perceived them, despite imperfections.").

Market definition is challenging. Nothing in our approach changes that. The difficulty of the task makes clarity all the more important. Where the logic of market definition reveals the irrelevance of a previously contentious consideration, it simplifies the exercise. Where it calls for additional work—defining different relevant markets for different theories of harm, for example—it complicates the exercise. But in either case, the outcome is improved by focusing attention on a coherent and economically meaningful market concept. Regardless of the constraints and limitations that beset the market definition exercise in practice, the economic analysis of antitrust issues can only be strengthened by a clearer understanding of the logic of market definition.

## V. CONCLUSION

As stated at the outset, our objective in this article is to clarify the core logic of market definition. We have illustrated this logic in part by pointing out several prominent mistakes in market definition thinking: the natural market fallacy, the independent market fallacy, and the single market fallacy. These fallacies are a vehicle for understanding the internal logic of market definition. Because there is no economically meaningful natural market, relevant markets must be analytic devices. Because analytic devices are tied to the subject of analysis, relevant markets can be defined only by reference to specified theories of anticompetitive harm. And because theories of harm may be numerous in common applications, multiple helpful relevant markets can and should be defined when doing so aids antitrust analysis. The whole of this article, we hope, is a useful guide to the logic of market definition.