THE LOGIC OF MARKET DEFINITION

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For well over half a century, antitrust trials have generally begun with the definition of a relevant market for the inquiry. To the uninitiated, this may seem like a reasonable way to start, but to the seasoned practitioner it can feel like trying to build upon a foundation of sand. Decades ago, Robert Pitofsky remarked that "no aspect of antitrust enforcement has been handled nearly as badly as market definition."[1] The situation is hardly better today.[2] Despite the long history antitrust has had with market definition, there still remains great uncertainty about what should factor into the market definition exercise, and even greater uncertainty about what shouldn't.

Why do we define markets? How should we define them? One would think that the core logic of market definition would have been settled long ago. But the novelty of the exercise, and its halting, inconsistent evolution in the courts, has proven an enduring challenge. Even the term, *market definition*, is more

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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), https://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.").

ambiguous than one might hope. 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] The realization that, today, all of these are potential answers, is as remarkable as it is unsettling.

With this paper, we hope to cut back some of the more persistent confusion that continues to ensnare the market definition exercise. Our goal is to trace the internal logic of market definition, identifying common errors and showing how the logic of market definition narrows and focuses the inquiry. The main thrust of our argument is addressed to *how* markets should be defined in antitrust. But pragmatism demands we pause to spend a few words on *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] There is force to many facets of this argument, and if one were to accept Kaplow's claim, then this paper would be academic. It doesn't much matter *how* relevant markets should be defined if we shouldn't be defining them in the first place.

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[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 ANTITR BULL. 915 (2012) [hereinafter Kaplow 2012]; Louis Kaplow, *Market Definition: Impossible and Counterproductive*, 79 ANTITR L. J. 361 (2013) [hereinafter Kaplow 2013].

Without dwelling on the point, our response is that courts and practitioners still need to understand how to properly define and interpret relevant markets in antitrust cases. There are at least three reasons for this.

First, the claim that market definition can be entirely replaced by things like econometric estimates of residual demand curves is disputed, to say the least.[6] It is difficult, for example, to imagine courts and practitioners analyzing ease of entry in the absence of a market concept—what exactly would firms enter?[7] Similar difficulties beset efforts to assess the danger of anticompetitive coordination without some idea what firms are in the market.[8] And while estimates of residual-demand elasticity may 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 exclusionary conduct.[9] In all of these situations, properly defined relevant markets further antitrust analysis.

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[6] *See generally* Gregory Werden, *The Relevant Market: Possible and Productive*, ANTITR 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 ANTITR BULL. 719 (2012); Malcolm B. Coate & Joseph J. Simons, *In Defense of Market Definition*, 57 ANTITR BULL. 667 (2012).

[7] *See, e.g.*, Werden 2013, *supra* note 6, 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).

[8] *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 6, at 739 ("[Coordinated effects analysis] uses the relevant market to determine how many, and which, competitors most likely would be involved in the coordination.").

[9] *See, e.g.*, 2B PHILLIP E. AREEDA & HERBERT HOVENKAMP, 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) ("[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

Second, regardless of the academic debate, courts have long relied on market definition in antitrust cases,[10] and the Supreme Court shows no indication that it will disrupt this practice soon. To the contrary, the Court has recently reaffirmed its view that "courts usually cannot properly apply the rule of reason without an accurate definition of the relevant market."[11] So long as binding precedent continues to invoke relevant markets, it will remain important for lower courts and practitioners to understand the logic and proper interpretation of the market definition exercise.

Third, despite Kaplow's insistence that market definition serves no purpose other than to permit calculation of market shares,[12] others perceive it to play further roles in antirust analysis. At investigational stages—in the review of merger notifications, for example—market definition is thought to help clarify analysis by imposing analytic discipline,[13] providing a logical way to organize

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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.

[10] *See, e.g.*, Fisher, *supra* note 7, 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.").

[11] 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).

[12] *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…").

[13] *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), *available at* https://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 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…").

information,[14] and focusing the scope of further competitive effects analysis.[15] At evidentiary stages—at trial or before the Agencies—market definition is thought to support structural inferences about competitive effects,[16] to provide important context for other evidentiary considerations (such as the possibility of entry or exit),[17] and, again, to impose some logical structure and discipline on analysis.[18] As we discuss later in this paper, there may be differences today in the role that 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 have the potential to cause anticompetitive injury and that thus need further scrutiny.[19]

We agree that market definition serves broad purposes, but we suspect that this breadth of use may actually be a source of confusion today. The common platitudes only reinforce this confusion. The Supreme Court does not mislead when it says "the purpose of [market definition] is to determine whether an arrangement has the potential for genuine adverse effects on competition,"[20] but neither does it take anything off the table. Part of the reason that the logic

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[14] *See, e.g.*, Fisher, *supra* note 7, 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.").

[15] *See, e.g.*, Werden 2013, *supra* note 6, 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.").

[16] *See, e.g.*, Hovenkamp & Shapiro, *supra* note 8 ("[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).

[17] *See supra* notes 6–9 and accompanying text.

[18] *See, e.g.*, Carlton, *supra* note 13, 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.").

[19] *See, e.g.*, 2B AREEDA & HOVENKAMP, *supra* note 9, ¶ 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.").

[20] F.T.C. v. Indiana Fed'n of Dentists, 476 U.S. 447, 460 (1986).

of market definition is so obscure today is that relatively little effort has ever been devoted to saying what *shouldn't* factor into the exercise.

This paper aims to fill that void. Our overarching objective is to clarify the core logic of antitrust market definition, but our strategy is to illustrate this logic partly by way of exclusion. The explanation of what should factor into market definition analysis is hardened by an understanding of what shouldn't. The following sections of this paper are thus structured around three common fallacies in the approach to 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 shouldn't is simply that there is no such thing as a market—markets are purely analytical devices without any tangible presence or natural form. Implications of this fallacy include the need to carefully circumscribe reliance on old market definition standards, and the need to reject as irrelevant claims of unrealistic or gerrymandered markets.

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 don't is contained in the prior fallacy—as purely analytic devices, markets do not exist independent of a problem or inquiry, but instead must be defined around a problem or inquiry. In antitrust, markets are defined around specific theories of anticompetitive harm. Implications of this fallacy include the need to avoid thinking of market definition as logically prior to identification of a theory 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,[21] and the infamous *Cellophane* fallacy,[22] are mere illustrations of this broader error.[23]

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[21] *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).

[22] *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).

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

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 inquiry. The reason that it shouldn't is contained in the prior fallacies—since a relevant market can only be defined by reference to a given theory of harm, and since there will be an infinite continuum of theories of harm for many interesting fact patterns, there will necessarily be many relevant markets that could be fairly and helpfully drawn in analyzing the competitive implications of a given case. Implications of this fallacy include the need to deemphasize a trial court's role in selecting the *correct* or *best* relevant market, and the need to specify potentially different relevant markets for each alternative theory of harm in a case or investigation.

The remainder of this paper explores each of these fallacies separately, and then together in a discussion section that traces broader implications for antitrust practice. In a sense, little that we discuss in this paper is new. Many of our suggestions about market definition can be extracted—to varying degrees of precision—from the text of the 2010 Horizontal Merger Guidelines,[24] and from scattered remarks throughout the decades of prior scholarship on market definition.[25] But the diffusion of insights through subtle implication and easily overlooked footnotes is an inefficient way to convey proper practices, and the enduring confusion that still surrounds market definition suggest that there is benefit to be gained from further exposition.

Our thesis is that by orienting lessons about market definition within a single, comprehensive framework, we can offer something new—a better sense of what it is that market definition does in antitrust law, and a better sense of how it should be done. In some respects, our approach simplifies the exercise. In other respects, it complicates it. We do not lightly contemplate any further complexity in the exercise, and do not diminishing the practical challenges of conforming market definition to available information and bringing the concept within the ken of lay judges and juries. But we see room for improvement. Even if practical market definition often or always falls short of its ideal, we believe the exercise is better performed when undertaken against the backdrop of its logic and proper operation.

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[24] *See generally* 2010 MERGER GUIDELINES, *supra* note 21.

[25] *See generally* Hovenkamp & Shapiro, *supra* note 8; Werden 2013*, supra* note 6; Baker, *supra* note 10; Salop, *supra* note 23; 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 14, at 41–74; TRIFFIN, *supra* note 15, at 78–96.

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 mere factual observation. The reason they shouldn't is that economic markets are not tangible things. They are analytical concepts without any necessary correspondence to past 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 be structured to prevent courts and plaintiffs from specifying artificially narrow markets.[26] The second is the concern that courts may fail to identify the correct market for analysis.[27] Each suggests a similar conception of the underlying exercise. To find an *artificial* market is to fail to find the *natural* market; to get market definition *incorrect* is to presume that there is a *correct* market. Both notions reflect the inroads that the natural market fallacy has made in market definition practice.[28]

This section traces the natural market fallacy through caselaw and academic commentary, showing how and why it hinders antitrust analysis. Though the mapping is admittedly crude, it facilitates discussion to separate 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 clarify economic analysis of discrete problems. Limiting the

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[26] 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.").

[27] *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.").

[28] 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).

domain of possible abstractions—in order to match some imagined set of natural market boundaries—can only hinder the 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 the identification of observable product characteristics and lay recognition of industry lines. At a high level, these efforts seek to find characteristics of products and producers that will indicate how a market should be 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 technical characteristics of products is *General Motors*, a merger case in which the Supreme Court carved a narrow relevant market of "automotive finishes and fabrics" out of a broader class of ostensibly similar industrial finishes and fabrics. The Court's ground for this definition of the market was 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]."[29] It is easy to imagine how differences in product characteristics and uses could help to indicate the competitive closeness of products, but this was not developed in the opinion. Beyond providing an articulable basis for distinguishing one group of products from another, the Court made no real effort to explain *why* the existence of such *peculiar characteristics and uses* was interesting from an antitrust perspective at all.[30]

The leading authority for defining markets by reference to things like public recognition of trade and industry lines is another merger case, *Brown Shoe*.[31] The district court, in this case, had 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

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

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

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

> 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*.[32]

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

> 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.[33]

We return briefly to the distinction between relevant markets and submarkets later in this paper, but it isn't interesting for present purposes. What *is* interesting 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 seem to heed this possibility in its own analysis.[34] Instead, it was overwhelmingly preoccupied with clarifying that submarkets had to be of sufficient size to warrant antitrust scrutiny.[35]

The point, here, is not to engage in anachronistic criticism of these cases. Rather, it is to emphasize what modern reinterpretations of these tests mask. 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 the practical indicia as factors relevant to assessing closeness of competition.[36] But the thrust of these opinions, and

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

[33] *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 …").

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

[35] *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).

[36] *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 25, at 205 (providing a similar reinterpretation).

thus the language they provide on market definition, was never really about the economic concerns at focus in these reinterpretations.

Antitrust law had not coalesced, at this time, around the modern consumer welfare standard, and both *General Motors* and *Brown Shoe* were influenced by the populist objectives that motivated § 7 of the Clayton Act: specifically, Congress's apparent intent that this provision would be used to protect small and local competitors against larger rivals and would bring a halt to what was perceived as rising seller concentration across various industries.[37]

Naturalistic market concepts followed almost necessarily from this understanding of the statute. In common usage, the terms *market*, *commodity*, and *industry* do not necessarily have much, if anything, to do with substitutability and the closeness of competition between products and producers.[38] And if what Congress sought to achieve with § 7 was indeed competitive fragmentation in industries and markets as popularly conceived,[39] then the naturalistic market definition standards of these cases were eminently reasonable efforts to comply with legislative intent. The problem is that aspects of these natural market concepts have endured the evolution of antitrust policy concerns and are now distractions and obstacles to proper antitrust analysis.

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

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[37] *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 27, 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.").

[38] *See* 2B AREEDA & HOVENKAMP, *supra* note 9, ¶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 15, 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.").

[39] *See* Hovenkamp & Shapiro, *supra* note 8, 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 27, 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.").

adhere strictly to lay concepts of industry in defining relevant markets,[40] and possible standards for defining relevant markets have always included various approximations to the economic idea of substitutability. Examples are efforts to identify markets by the related notions of the *cross-elasticity of demand* and the *reasonable interchangeability of use* between products.[41] At a high level, the 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 that they may not compete in a common market with stores in a neighboring town, and they certainly do not compete in the same market as stores in a town several states away. There are admirable qualities to this substitutability-based approach to defining markets, but—without more to the analysis—it too rests on what is an essentially a naturalistic market concept.

One of the leading authorities for defining markets by reference to cross-elasticities of demand is *Times-Picayune*, a tying case in which the Court did not undertake any detailed market analysis, but did devote a footnote to commending 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.).[42]

In using the term, cross-elasticities of demand, the Court probably overstated the economic precision of its proposed standard. The extent of its own analysis of the cross-elasticity of demand was to consider the "the trade's own characterization of the products involved" and to observe that those in the trade "markedly differentiate" between certain products.[43]

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[40] *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.").

[41] 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, 81 S. Ct. 623, 628, 5 L. Ed. 2d 580 (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.").

[42] Times-Picayune Pub. Co. v. United States, 345 U.S. 594, 613 n.31 (1953).

[43] *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.").

The other leading authority for defining relevant markets by cross-elasticity of demand is *Cellophane*.[44] Here, however, the Court inartfully 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.[45]

Whether there is any intelligible difference between the Court's concepts of cross-elasticities of demand and reasonable interchangeability of use seems 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 adds to the consideration customer willingness to substitute products at then-existing prices.[46] But there is no plausible economic justification for this bifurcated approach, and it stands in seemingly direct conflict with the standard the Court actually articulated in *Cellophane*, encompassing "reasonable interchangeability … price, use and qualities considered."[47]

The cross-elasticity and reasonable interchangeability standards articulate the same market definition concept: identify the boundaries of a market by drawing a line where the substitutability of products and producers becomes too attenuated. These standards are also the same in that neither even attempts to articulate where this cutoff lies: how small must be the cross-elasticity of demand, and how poor must be the interchangeability of use, before the edge

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[44] 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].").

[45] *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.").

[46] *E.g.* F.T.C. 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); F.T.C. 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).

[47] *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.").

of a relevant market has been reached?[48] Here, the naturalistic foundations of substitutability-based markets become clear.

First, and most importantly, the standard embraces the naturalistic approach of seeking some market that exists identifiably in the world, distinct from any given inquiry or investigation: a group of products or producers that could be identified by mere observation, as long as the relevant elasticities were known. The only time such a thing would ever clearly exist is when 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.[49] Such a market would then be something discretely identifiable in the world.

Second, natural market expectations are revealed in the failure of this ideal. Perfect gaps in competition are rare; a given product usually faces competition from products of varying degrees of substitutability at varying price points.[50] And precisely because the cross-elasticity and reasonable interchangeability standards offer no clear guidance about what to do in these cases, courts and scholars have come to describe relevant markets as imperfect and artificial.[51] Often, but not always, these apologies are founded on the notion that there is a right market that has not been identified, or that the existence of plausible

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[48] *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?).

[49] *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.]").

[50] *See* Stocking, *supra* note 22, 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 48, 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.").

[51] *See* 2B AREEDA & HOVENKAMP, *supra* note 9, ¶ 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).

alternative markets somehow undermines the validity of any given choice. In these cases, the naturalistic underpinnings of the concept show through.

C. THERE ARE NO NATURAL MARKETS

Unsurprisingly, the tendency toward natural market concepts in the earlier antitrust jurisprudence mirrors how economic thinking evolved on this topic. Starting from an uncritical identification of markets with commodity concepts in classical price models,[52] economists contemplated the classification of industries around observable characteristics,[53] the definition of markets by close substitutability,[54] and the termination of market boundaries at discrete gaps in the chain of substitutes.[55] The unsatisfying properties of all these approaches were foreshadowed in the preceding pages.

The turning point in economic thinking occurred around the middle of the 20th century. In 1950, Edward 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

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[52] *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 15, 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.").

[53] *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.").

[54] *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.").

[55] *See* ROBINSON, *supra* note 49.

> all, but in similarity of raw materials or other inputs or of technical methods used.[56]

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.[57] Under this approach, markets are not concrete arenas or even free-standing entities. They are simply lenses for focusing analysis on the problem at hand. Markets can, and must, be molded to reflect whatever *is* the problem at hand.[58] And thus there are no right or wrong markets but only markets of various utility in studying a particular economic question.[59]

The novelty of Chamberlin's approach is taken for granted today. But this basic understanding of markets as analytic tools of abstraction has carried forth to the present in the study of microeconomics.[60] Even though the underlying logic is not explicitly stated, this analytical understanding of the market concept is foundational in much modern equilibrium analysis.[61]

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. There is not any *real* market waiting

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

[57] TRIFFIN, *supra* note 15, at 84 (explaining the "Chamberlinian 'group'" concept).

[58] *See* Papandreou, *supra* note 52, at 886 ("For Professor Chamberlin the 'group' concept is merely an analytical tool which derives its content from the problem at hand.").

[59] *See, e.g.*, TRIFFIN, *supra* note 15 (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 48, 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.").

[60] *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.").

[61] Werden 2013, *supra* note 6, 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 6 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.").

to be found.[62] A market is not true (false), correct (incorrect), or real (unreal), but merely appropriate (inappropriate) in varying degrees. Appropriateness is a contextual quality. And the context, in antitrust, 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 in which it is being used. The second point is developed at length in Section II of this paper, 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, as the policy and framework of antitrust law have shifted to the economic analysis of effects on consumer welfare, the precedential language of these old cases has remained fixed—presenting both a hurdle to proper market definition and a lure to naturalistic thinking.

The hurdle is that even when the factors implicated by these standards are relevant to the proper definition of markets, 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;[63] and the characteristics standards do not say how to interpret any given combination of characteristics.[64] As discussed in Section II, the modern HMT and related tests of market definition do provide determinate answers to these questions.[65] But so long as courts continue to treat natural market concepts as the controlling standards, market definition will remain confused.

The lure of the Court's old market definition standards is that they provide a vehicle by which natural market thinking can continues to creep into market definition practice. One example is the continued to focus on *Brown Shoe*'s practical indicia in merger cases.[66] While some of the underlying factors may well be relevant in conducting HMT analysis of a relevant market, treating these factors as having relevance outside that scope only distracts from the proper analysis. Another example is the occasional argument, based on the reasonable interchangeability standard in *General Motors*, that a judge's own

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[62] SULLIVAN, *supra* note 14, at 41 ("There is not for any product a single, real 'market' waiting to be discovered.").

[63] *See supra* notes 48, 51, and accompanying text.

[64] *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.").

[65] *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); Fed. Trade Comm'n v. Sysco Corp., 113 F. Supp. 3d 1, 25–38 (D.D.C. 2015) (same); F.T.C. v. CCC Holdings Inc., 605 F. Supp. 2d 26, 38–45 (D.D.C. 2009) (same).

[66] *See supra* note 65.

impression of substitutability should outweigh evidence of actual consumer preferences in market definition.[67] The economic incoherence of this idea reflects naturalistic roots. Only if markets were observable entities in the world would it possibly make sense to elevate a judge's impression of product characteristics above otherwise reliable evidence of consumer preferences in the market definition exercise.[68] Finally, a third example is the misuse of *Brown Shoe*'s admonition that relevant markets must "correspond to … commercial realities"[69] to discredit proposed markets as "unrealistic" or "gerrymandered."[70] Since there is no such thing as a natural or realistic market, there can never be an artificial or an unrealistic market.[71] 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 engage in naturalistic thinking at its most meritless.

There is neither legal nor logical defense for continuing to perpetuate the natural market fallacy. The Supreme Court's early efforts at market definition never purported to exhaust the ways to define a market.[72] Moreover, in stating

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[67] 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.").

[68] This is not to say that all evidence of consumer preferences is entitled to uncritical deference. But to the extent that product characteristics are relevant at all, it must be to help evaluate consumer preferences—not the other way around. *Cf. supra* note 67 and sources cited therein.

[69] *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.

[70] *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 ...").

[71] *See* Baker, *supra* note 10, 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 21, § 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.'").

[72] *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.").

that the purpose of market definition "is to determine whether an arrangement has the potential for genuine adverse effects on competition,"[73] the Court has set an objective alien to its early natural market concepts, but fully consistent with HMT markets and related market definition concepts. The groundwork for progress has already been laid by courts and scholars that have endeavored to reinterpret and reframe the old standards in modern terms.[74] But why continue to recite the old standards at all? Prioritizing modern market definition concepts over the old naturalistic standards is at best a more economically sound way to analyze cases (if discussion of the older standards would have influenced analysis), is at worst a more honest form of argument and explanation (if, indeed, courts are already reinterpreting the old standards in purely modern terms), and is—at any rate—faithful execution of the command that markets should be defined to reflect potential harm to competition.[75]

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 root error, here, traces to the subject of the previous section. If markets were indeed freestanding entities, then the purely observational task of defining a relevant market would be independent of competitive effects analysis. But markets are not natural things; they are analytical concepts constructed to aid in the study of particular questions. And this means that the act of defining a market cannot ever be separated from that of hypothesizing a specific competitive concern. One cannot define a relevant market—or even conceive of what a meaningful market might be—without first specifying the particular theory of harm to be assessed with the aid of that market concept.

Again, 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, seeming to schedule market definition ahead of competitive effects analysis and articulating market definition standards that lacked dependence on theories of anticompetitive harm.[76] A similar

[73] F.T.C. 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.)."

[74] *See supra* note 36 and sources cited therein.

[75] *See Indiana Federation of Dentists*, 476 U.S. at 460 (1986).

[76] *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 …").

idea long applied in merger review, with interpretation of market definition as a discrete, initial step in the process dating to at least the 1982 Merger Guidelines.[77] The 2010 Horizontal Merger Guidelines laudably deny this ordering, yet advocates of the old ways remain.[78] The underlying error, in all these examples, is the idea that relevant markets can be defined without express reference to the theory of anticompetitive injury in question.

This section shows how the economic understanding of markets as analytic tools necessitates a market definition standard that depends upon the specific theory of harm in question. Standards like the HMT broadly align market definition with theories of competitive harm. But even these standards generally require further tailoring to produce appropriate results in specific applications. Examples of the kind of things in need of customization include the baseline price and price-increase terms of the HMT—parameters that cannot be specified without first specifying the theory of harm in question.

A. INJURY DEPENDENCE OF THE MARKET CONCEPT

Antitrust scholars have long suspected that mainstream economics has little to say about market definition.[79] And it has recently become popular to claim that economists *never* define markets.[80] Both ideas are curious, given the substantial effort that economists have devoted to studying the theory of market concepts and the identification of markets.[81] To be charitable, perhaps these assertions simply mean to say that mainstream microeconomists do not often

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[77] *See* U.S. DEP'T OF JUSTICE, 1982 MERGER GUIDELINES § 2, *available at* https://www.justice.gov/sites/default/files/atr/legacy/2007/07/11/11248.pdf (appearing to make market definition the first step in the analysis of mergers); U.S. DEP'T OF JUSTICE & FED. TRADE COMM'N, 1992 MERGER GUIDELINES § 0.2, ¶ 1, *available at* https://www.justice.gov/sites/default/files/atr/legacy/2007/07/11/11250.pdf [hereinafter 1992 MERGER GUIDELINES] (similar).

[78] *Cf.* Varney, *supra* note 19, at 655 (responding to criticism of the 2010 Merger Guidelines' position that merger review does not need to begin with market definition).

[79] *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 …").

[80] 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 27, 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 7, 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.").

[81] *See supra* Section I.C (citing and discussing just some of this work).

define antitrust markets in their day-to-day affairs. If this is the claim, then it is correct, but uninteresting.

Markets are analytical tools constructed to facilitate the analysis of specific questions and problems. And because antitrust markets are constructed for the specific purpose of studying antitrust problems, it would be remarkable indeed if they *were* of great interest to economists studying non-antitrust problems. The point is not that antitrust market concepts differ in any fundamental way from the types of market concepts used elsewhere in economics.[82] 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 an activity caused some anticompetitive injury? or (2) might an activity cause some future anticompetitive injury?[83] In venturing to answer either question, one helpful market concept is an outer bound on the concerns sufficient to bring about the injury in question: a market defined as a group of transactions in which the contemplated injury *could* occur, at least under assumptions favorable to the theory of harm.[84] Sometimes defining such a market will itself answer the dispositive question—whether a competitive injury did or might occur in this particular case. In most cases, market definition will not itself provide an answer, but will facilitate analysis by identifying the competitive features most relevant to the question.

In the right circumstance, the HMT exemplifies this type of market concept. The test is familiar enough to dispense with a detailed summary.[85] The basic

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[82] *Cf.* Massey, *supra* note 48, 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 9, 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 52, 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.").

[83] 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.

[84] *See, e.g.*, Werden 2013, *supra* note 6, 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 22, 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.").

[85] *See generally* 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 21, § 4.1.1 (providing the modern expression of the HMT as applied to horizontal mergers).

idea is to take a candidate market (e.g., a set of products) and ask whether a hypothetical monopolist over this market would marginally raise the price of some of the products (e.g., by 5%) 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 market; otherwise, the candidate market is expanded to include more products and the test is repeated. Less elaborate articulations of the HMT,[86] and comparable standards based on the identification of possible collusive groups,[87] or of producers that would otherwise constrain an exercise of some degree of market power,[88] amount to roughly the same idea.

A test of this form exemplifies proper antitrust market definition when it corresponds 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 5% price increase for a non-transitory period of time) defines a relevant market corresponding to just such a theory of harm. By definition, accurate implementation of this version of the HMT will only identify market concepts in which coordination among the set of producers *could* result in something like a near-term price increase of 5%. Whether the merger *would* bring about this result is a question requiring further analysis of market structure and incentives. But the relevant market identifies the suspect participants and helps contextualize the further analysis needed to answer this dispositive question.

By contrast, the typical articulation of the HMT fails to identify a proper market when it does not correspond to the relevant theory of harm. Suppose, for example, that the previous merger had instead raised concern about coordination bringing about a large price increase, and not until the next bidding

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[86] *See, e.g.*, Hovenkamp & Shapiro, *supra* note 8, 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 9, ¶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 14, 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.").

[87] *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).

[88] *See, e.g.*, Fisher, *supra* note 7, 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 87, at 763 ("A firm's competitors … are those sellers who would cause significant losses if that firm took independent action.").

cycle (e.g., 2 years in the future). The typical articulation of the HMT is a poor basis for defining a relevant market for this theory of harm. The typical HMT parameters 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 future price increases by substituting products or suppliers may well differ from their ability to cover against near-term price increases. A different version of the HMT is needed to address the specifics of this different theory of harm.

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."[89] 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 a question-independent step in the analysis. This is error wherever it occurs. An analytically useful relevant market cannot be defined except by reference to some potential anticompetitive injury.[90] The relevant market should always be customized to the theory of harm.[91]

This deceptively simple proposition has immense clarifying power in explaining the proper definition of relevant markets in antitrust. Take the 2010 Horizontal Merger Guidelines, for example. While accurately conceding that things like the base price and hypothesized price increase may differ from one application of the HMT to the next,[92] the Guidelines provide little explanation

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[89] Areeda, *supra* note 9, at 553; *see also* Fisher, *supra* note 7, 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.").

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

[91] *See, e.g.*, Salop, *supra* note 23; 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.").

[92] *E.g.*, 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 21, § 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").

of how or why these parameters should be chosen in a given application. Much confusion could have been avoided if this material had simply stated: the base price and the hypothesized price increase will be specified to reflect the specifics of any competitive concern under investigation. The following material explains what this means for proper applications of the HMT.

1. CUSTOMIZING THE PRICE INCREASE

The single greatest omission in the 2010 Merger Guidelines may be its failure to explain how the size of the hypothesized price increase should be determined in applications of the HMT. The Guidelines note that the size of the increase is a methodological question, not a policy choice.[93] But, beyond this, the most that the Guidelines say about the proper size of hypothetical price increase is that it depends on "the nature of the industry and the merging firms' positions in it."[94] Even if this were not a hollow platitude, it would still annoy for reversion to natural market concepts (the "nature" of the metaphysical "industry") in the midst of articulating an analytical market concept. By simply considering theory dependence in the exercise, we can do better.

To start, it bears emphasis *why* the size of the price increase is not a policy question. The typical 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 only be defined around substantial price increases—increases of 5% or more, for example.[95] There are at least two flaws in this reasoning. First, there is no *de minimis* threshold for stating a violation of any antitrust statute,[96] making it odd to contemplate the implementation of any particular choice of threshold at the market definition stage. Second, even if there were something like a *de minimis* requirement of a 5% price increase, this would logically apply to the competitive *effect* of some challenged conduct, not to the relevant market in which that conduct is assessed.

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[93] *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.").

[94] *Id.* § 4.1.2, ¶ 3.

[95] *See, e.g.*, 2B AREEDA & HOVENKAMP, *supra* note 9, ¶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 9 , 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.").

[96] *Cf.* 3B PHILLIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW ¶ 801, at 408 (4th ed. 2015) ("On the question of how much power is enough to invoke § 2, there is no single or wholly satisfactory answer.").

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 of ten firms in the relevant market, in which case the price effect could be much smaller than the assumed 5% threshold.[97] In either case, attempting to implement the substantiality threshold at the market definition stage proves a clumsy and misleading strategy.

So, on what basis *should* the hypothetical price increase be chosen in a proper application of 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 we worry might be the actual competitive effect. Suppose, for example, that the anticompetitive concern is a price increase of only as much as 3%—because an elastic supply of an alternative product is known to be available at a price 3% above the current price.[98] A relevant market defined by the HMT with a 5% price increase is an inappropriate and poor analytic tool for assessing this competitive concern. Of what importance are the suppliers that are "in" the market for a 4–5% price increase when the real concern is a 1–3% price increase? The proper size of price increase for the HMT in this example would be no more than 3%.[99]

This point generalizes. If the theory of 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 problem at hand. If the worry is a large price increase, then the unavailability of adequate substitutes for a small price increase is at best of partial interest. It is also critical to know which producers are "in" the market for a large price increase on the order of the theorized concern. Here, the proper choice of hypothetical price increase is thus a large one: something like 10–20%.

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

[98] *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.").

[99] 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 Section IV.B.

Of course, in many cases it may not be possible to state the anticompetitive concern with such precision. Early in the review of merger notifications, for example, it would be too much to demand such clear understandings of the potential anticompetitive concern. And in other situations—those involving a range of potential coordination strategies, for example—it may never be possible to specify competitive concerns in fine detail. Where nothing about the conduct or context suggests otherwise, the default 5% price increase of the 2010 Horizontal Merger Guidelines is as reasonable a default as any.[100] But it should not be taken as the firm standard that it so often is today. If the relevant market is to be helpful in analyzing questions, then as the nature of anticompetitive concern evolves and focuses, so must 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,[101] the posterchild for failing to heed this need is the Supreme Court's infamous blunder in *Cellophane*.[102] To translate the Court's mistake into HMT terms, in attempting to define the relevant market for assessing a claim of monopolization under § 2 of the Sherman Act, the Court asked whether Cellophane would have found it profitable to increase the price of its product by 5%. Finding that Cellophane would not have profited from such a price increase—to the surprise of no one operating under the standard assumption that firms set prices to maximize profits—the Court went on to expand the relevant market and misleadingly mask Cellophane'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 a narrower relevant market would have been validated and Cellophane's apparent market power would have been evident.[103]

Few antitrust cases have been pilloried so viciously—or deservedly—as the Court's folly in *Cellophane*. Yet just what made this reasoning folly has never fully crystalized in the literature. Commentary on the topic has often drawn a distinction between market definition in monopolization cases and in merger cases, wrongly suggesting that the statutory standard is of more than derivative importance in market definition.[104] Similar ambiguity enshrouds the 2010

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[100] 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 21, § 4.1.2, ¶ 3 ("The Agencies most often use a SSNIP of five percent of the price paid by customers ...").

[101] An exception is Steve Salop's treatment of this subject. Salop, *supra* note 23, at 194, 197 (providing a description of the "*Cellophane* trap" analogous to what we describe, here).

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

[103] *See generally* 2B AREEDA & HOVENKAMP, *supra* note 9, ¶ 539 (providing an extended treatment of the *Cellophane* fallacy); POSNER, *supra* note 22, at 150–51 (same).

[104] *E.g.*, Massey, *supra* note 48, 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

Horizontal Merger Guidelines' approach to the HMT: while the Guidelines expressly contemplate alternatives to the default of a current-price baseline, the circumstances motivating such deviations are described in the vague terms of likely future prices absent the merger.[105] While none of these commentaries is entirely off the mark, none actually 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 questions. And like any tool, the proper market concept for the job depends on the purpose for which it is to be used.[106] The proper market for one question may well be improper for another. *Cellophane* illustrates just this.

As stated above, *Cellophane* presented the Court with a theory of monopolization.[107] Possession of monopoly power is an element of this claim, and the purpose of defining a market in *Cellophane* was to help determine whether Cellophane already possessed monopoly power.[108] Whether market definition was really needed to address this element is debatable,[109] but to the extent that market definition *was* used, a proper market concept would have been to ask whether Cellophane 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

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abuse of dominance cases."); Werden, *supra* note 9, at 526 (asserting non-applicability of the *Cellophane* fallacy in merger cases). *Cf.* POSNER, *supra* note 22, 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).

[105] *See* 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 21, § 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.").

[106] *See* Werden, *supra* note 9, 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.").

[107] 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).

[108] *Cf. id.* at 380 ("Market delimitation is necessary … to determine whether an alleged monopolist violates [§ 2]. The ultimate consideration is 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 14, 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).").

[109] *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).

have validated markets responsive to this question.[110] This is not to minimize the challenge of identifying such a counter-factual "competitive price."[111] But that challenge is what the substantive law demands if market definition is to be helpfully directed to the legal question presented by 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 Cellophane need to control or collude with in order to further raise the price of its product? This is an interesting question, and this market concept may well have been appropriate for assessing a claim of attempted monopolization or conspiracy to monopolize.[112] 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 this case.

The same logic applies when selecting the base price for defining relevant markets in merger cases. An opportunity for illustration is longstanding unease over 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?[113] 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,"[114] which aspires to make the current price the default baseline, but to allow for deviations from this rule in a few vaguely identified special cases.[115]

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[110] *See* Werden, *supra* note 97, 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.").

[111] *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).

[112] *Cf.* 2B AREEDA & HOVENKAMP, *supra* note 9, ¶539a, at 321 (commenting that relevant markets defined around price increases may be appropriate in attempted monopolization cases).

[113] *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 9, 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.").

[114] 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 21, § 4.1.2, ¶ 1.

[115] *Cf.* Werden, *supra* note 9, 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

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. But 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 to use in defining the relevant market. 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 to effectively depress the price?" As ever, an analytically helpful relevant market must be customized to 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 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 potential for some future shock to disrupt this pattern of coordination—random disruption being more likely the more independent concerns there are in the coordinated equilibrium.[116] 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 accommodate

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falling. In this case, a price significantly below the prevailing price could be considered to be a 'likely future' price…").

[116] We are grateful to Bob Tovsky for suggesting this particular articulation of the theory of anticompetitive entrenchment. *Cf.* Am. Needle, Inc. v. Nat'l Football League, 560 U.S. 183, 195 (2010) (focusing on "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" protected by the antitrust laws).

this answer, but only in the form of a vague and unexplained exception, rather than as a simple application of the usual approach to market definition.[117]

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 just below the point that would trigger uncommitted entry by high-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 merger will allow the dominant firm to further raise its prices. 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 at all,[118] it is only on the conviction that a competitive price "would likely prevail absent the merger,"[119] which awkwardly predicates willingness to analyze this theory of harm on its own conclusion.

The Guidelines' likely-future-price paradigm is thus doubly problematic. It can be faulted for obscuring the simple logic of selecting a proper HMT base price in merger cases. But its greater fault may be that its awkward framing seems likely to bias merger analysis consistently away from theories of anticompetitive harm centered on the entrenchment of market power. If this is the intent, then it reflects a policy choice at odds with the statutory authority for merger review to reach cases of entrenchment of market power.[120] There is nothing philosophically wrong with deciding not to purse such theories, but that decision should be explicit—a statement of law or discretionary enforcement policy—and not the implicit result of market definition mechanics.

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[117] 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 21, § 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.").

[118] *Cf.* Werden, *supra* note 9, 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").

[119] 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 21, § 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").

[120] *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 21, ("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 9, 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.").

C. BROADER IMPLICATIONS FOR MARKET DEFINITION

The lesson that the proper definition of a relevant market always depends on the specific theory of anticompetitive injury has implications beyond the illustrations described above.[121] In the interest of brevity, we will not discuss every lesson in detail, but we do wish to emphasize two important observations. First, in addition to the clarifying the level of HMT baseline, the theory-dependence of market definition explains how to define the baseline price: whether a hypothesized price increase is to be considered relative to the immediate price of an intermediate product, to its value-added price, to the final price of the end product, etc.[122] The answer is (predictably) that the baseline price should always be defined relative to the theory of harm. Second, whereas the 2010 Horizontal Merger Guidelines treat price discrimination markets as special cases, if not exceptions to the usual approach in market definition,[123] they are actually just applications of the rule that market definition must be tailored to the theory of harm. If the theory of harm is market-wide price elevation, then there is no need to specify the customer component of the market. But if the theory of harm is price elevation to only certain customers, then this customer-component of the theory should be reflected in the definition of a relevant market. Nothing but common sense and a theory-dependent understanding of market definition is needed to reach this result.

To summarize, proper market definition should always be customized to fit the specific theory of competitive injury in question, and courts and advocates should resist the urge to see market definition as a standard or rote process. Nor need they feel bound to the independent market fallacy. While Supreme Court caselaw on market definition has rarely been artful, the intent that relevant markets should reflect specific theories of harm comes through. This was clear in *Philadelphia National Bank*:

> The proper question to be asked in this case is not where the parties to the merger do business or even where they compete, but where, within the area of competitive overlap, the effect of the merger on competition will be direct and immediate.[124]

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[121] *See* Salop, *supra* note 23, at 194–95 (outlining five analytic traps that can be avoided by explicitly recognizing the theory-dependence of market definition).
[122] *Cf.* Werden, *supra* note 9, at 534–38 (discussing these types of alternatives).
[123] *See* 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 21, §§ 3, 4.1.4, 4.2.2.
[124] United States v. Philadelphia Nat. Bank, 374 U.S. 321, 357 (1963).

It was reaffirmed in *Indiana Federation of Dentists*: "[t]he purpose of [market definition] is to determine whether an arrangement has the potential for genuine adverse effects on competition."[125] And it is consistent with the kind of sophisticated economic analysis on which so many recent cases have rested. Where a theory of harm has been identified, and to as much specificity as this theory allows, market definition should focus on the identification of market concepts tailored to the specific concerns in question.

III. THE SINGLE MARKET FALLACY

The *single market fallacy* is the common mistake of assuming each antitrust case involves a single relevant market. To be clear, most markets encompass a variety of products, and we do not mean to suggest that courts have failed to recognize this or to allow for multiple product markets where several dissimilar 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 traces to both of the prior fallacies. The existence of a single market is congruent with the assumption of natural, freestanding markets. And the mistake is propagated by failure to appreciate the theory-dependence of relevant markets. Setting these foundational errors aside, the fallacy of the single market assumption stands bare: since a relevant market is nothing but an analytical tool used to study a given theory of harm, and since there are many possible theories of harm in any interesting fact-pattern, there will typically be many helpful relevant markets to be drawn in every application.

If this seems obvious, it is worth noting that it has evidently *not* seemed so to the legions of courts, practitioners, and scholars that have battled over selection of *the* relevant market for a case. From the early days of antitrust to the present, trial courts have often taken market definition to be a fact question that they alone must answer—taking party advocacy under advisement, but ultimately finding for themselves the relevant market for the case.[126] Antitrust scholars have proven no less fixated on trying to identify unique relevant markets,[127] or at least trying to distill down principles for choosing a single market

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[125] F.T.C. v. Indiana Fed'n of Dentists, 476 U.S. 447, 460 (1986).

[126] *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).

[127] *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

from among the possible alternatives.[128] In each of these examples, the object of attention only makes sense if one starts from the premise that there should be only one relevant market for each inquiry.

A proper understanding of markets as theory-dependent analytical tools necessitates the conclusion that multiple relevant markets can—and usually should—be defined in any given antitrust application. This multi-market paradigm has great clarifying potential, but only to the extent that it is reflected in some modest tweaks to current practice. For example, the multi-market paradigm suggests that separate relevant markets should generally be defined for every theory of harm in a trial or investigation. It also necessitates a different understanding of the role of courts and defendants in defining relevant markets. As a general rule, the choice of relevant markets should be left to the plaintiff, with courts and defendants limited to testing the validity of whatever markets the plaintiff proposes.

A. MULTIPLICITY OF RELEVANT MARKETS

Few ideas in antitrust seem as settled as the implicit assumption that there can be only a single relevant market (or set of relevant markets) for all aspects of a given inquiry. This is not to say that courts have never defined multiple markets in antitrust cases: some of the older merger cases multiplied markets with abandon.[129] But the modern view is apparently that the market definition exercise should result in a single market concept germane to all theories and purposes,[130] with at most begrudging allowance for the special treatment of

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9, 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 97, at 194–95 (stating that the smallest market principle means "there is a unique relevant market for every initial candidate market").

[128] *Cf.* Werden, *supra* note 91, 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.").

[129] *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.").

[130] *E.g.*, 2B AREEDA & HOVENKAMP, *supra* note 9, ¶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 ..."); Werden, *supra* note 91, at 117 ("Under the Guidelines, there are many markets but generally only *one* relevant market…") (emphasis added).

price discrimination markets in certain circumstances.[131] This single-market philosophy manifests in several common practices.

One such practice is for courts to approach market definition as their own responsibility. Not always, but often, antitrust trials play out with the plaintiff and defendant both putting forth arguments for what the relevant market should be,[132] and with the court then taking on the role of arbiter in deciding which definition will prevail.[133] Whatever market the court announces as the outcome of this process is *the* relevant market for the case.[134]

Closely related to the previous practice is scholarly discussion of market definition as an exercise in selecting the *best* relevant market for a case from among the possible alternatives.[135] The best market, in this approach, is typically understood to mean the market concept that most accurately reflects the market power of the parties in question.[136] Again, the best or more representative market is taken as *the* relevant market for a given application.

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[131] *See, e.g.*, 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 21, § 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 …."); Fed. Trade Comm'n 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).

[132] *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").

[133] *See, e.g.*, *supra* note 126 and sources cited therein; F.T.C. 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*].).

[134] *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 9, 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).

[135] *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.").

[136] *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.");

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, nor that we endorse all the ways they have been abused in antitrust practice.[137] 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 must be mutual exclusivity,[138] another example of the single-market expectation at work.

The irony to 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 fairly strong signal that economic reality does not align with the single-market expectation. This warning unheeded, the presence of alternative plausible market concepts is often taken as a challenge to be overcome—with wasted effort and confused analysis the predictable result.

The simultaneous existence of multiple relevant markets flows immediately from economic fundamentals. Since economically meaningful markets cannot be anything other than analytic constructs, there will necessarily be at least one relevant market for every theory of harm to be studied; and since there will often be alternative theories of harm, and even alternative degrees of harm within a given theory, there will generally be many potentially helpful relevant markets in any given antitrust application.

Areeda, *supra* note 9, 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 14, 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.").

[137] *See* Baker, *supra* note 25, 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).

[138] *E.g.*, 2B AREEDA & HOVENKAMP, *supra* note 9, ¶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.").

In retrospect, this is intuitive. The goal of seeking the *best* relevant market begs an obvious question: best for what? Best in the sense of whatever market "most accurately depicts the extent of market power" is no answer.[139] The best market concept for gauging the possibility of unilateral harm from a merger will not and should not generally align with the best market concept for gauging the possibility of modest coordinated price elevation as the result of the merger. Moreover, the best market for gauging the possibility for modest coordinated price elevation will not and should not generally equate to the best market for gauging the possibility of more substantial coordinated price elevation. As discussed in Section II, the proper 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, there will be at least one and often many relevant markets that could be helpful drawn in guiding analysis.[140] Logical clarity in antitrust analysis requires a multimarket paradigm.

B. MULTIPLE MARKETS IN ANTITRUST PRACTICE

A relevant market is an analytical tool used to study a given theory of harm; and since there may be many theories of harm in a given trial or investigation, there may be many helpful relevant markets in a given trial or investigation. Unassuming though it is, this simple proposition has remarkable potential to streamline and clarify aspects of current antitrust practice. By way of example, we discuss a few important implications below.

1. MULTIPLE MARKETS BY TYPE OF HARM

The most obvious avenue for defining multiple relevant markets in antitrust applications is to tailor different relevant markets to different theories of harm. This is not an alien concept. The Supreme Court performed just 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 the case.[141] But the principle generalizes to lower-level differences in the theory of harm as well.

An example is the definition of relevant markets in merger cases in which the plaintiff alleges both unilateral and coordinated theories of anticompetitive

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

[140] *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.").

[141] 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).

injury. Despite drawing a rather sharp distinction between the analysis of unilateral and coordinated effects, the 2010 Horizontal Merger Guidelines can be read to suggest that the same relevant market should be used to assess both of these different theories of harm.[142] Recent merger cases have tended to follow this suggestion.[143]

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 rarely needed, the relevant market concept being an output of the model rather than an input. But in coordinated effects analysis, market definition can rarely be dispensed with, since it plays the central role of identifying in the first instance those groups of producers that could achieve anticompetitive outcomes through coordination, and thus whose coordination incentives must be considered.[144] It is natural and intuitive to define different relevant markets for purposes of assessing these different theories of harm.

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 coordinated conduct among the remaining firms in the market.[145] Worse yet is the possibility that a viable theory of harm might be marginalized or omitted from consideration altogether as a means of protecting the market concept favorable to another theory of harm—declining to allege coordinated effects, for example, because the market it would suggest is broader than the market that a unilateral effects

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[142] *See generally* 2010 MERGER GUIDELINES, *supra* note 21, §§ 4, 6–7.

[143] *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); F.T.C. v. CCC Holdings Inc., 605 F. Supp. 2d 26, 38–44 (D.D.C. 2009) (same).

[144] *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.").

[145] See Baker, *supra* note 25, 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.").

model supports.[146] Multiple simultaneous relevant markets can and should be defined to focus analysis and avoid these types of problems.

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 as well. This was foreshadowed in the previous discussion of relevant-market dependence on the size of price effect contemplated in a theory of harm.[147] 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 the others, and that these three could, if alone united in a cartel, maximize profits by raising prices 5 percent above prevailing levels.[148] 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, here: (1) modest potential price elevation resulting from coordination among the two remaining close competitors, and (2) larger 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, those conditions are not impossible,[149] and as a practical matter might be descriptive in some cases.[150] To the extent that these conditions arise, it can only hinder analysis to insist, as modern market definition practice seems to do, that one or another market should be chosen

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[146] *Cf.* Carlton, *supra* note 13, 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.").

[147] *See* Section II.B.1.

[148] 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 9, ¶537d, at 311–12 and sources cited therein.

[149] *See supra* note 98 (discussing the tiered constraints that evidently beset sugar producers).

[150] *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 14, 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.").

as *the* relevant market for analysis. The possibility of harm in a broad market is no more deserving of exclusive consideration than is the possibility of harm in a narrow market.[151] If both theories of harm are possible, then both should be considered;[152] and if market definition is to aid in this consideration, then each theory should be placed in the context of its own relevant market.

C. BROADER 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 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,[153] the logical answer is that injury in any properly defined relevant market is sufficient to establish a violation.[154] This conclusion has further implications for market definition practice.

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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[151] *See* Baker *supra* note 25, 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 9, 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.").

[152] *See* Baker, *supra* note 10, 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.").

[153] *See* 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 21, § 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).

[154] *See supra* note 152; 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 21, § 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 8, 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. This relieves antitrust plaintiffs of the burden of proving anything more than potential injury in a choice of relevant market.[155]

Second, and closely related to the previous comment, the "smallest market principle" should be deemphasized in a multi-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 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 competitive harm.[156] Either way, the smallest market principle is redundant in a proper understanding of market definition. The irrelevance of alternative broader markets is self-evident, as explained above. 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. Flexibility in the choice of relevant markets allows analysis to focus on whatever market concepts are *actually* most relevant to the specific theories at issue in a given case or investigation.

Third, anticipating a possible reaction to the last comment, giving antitrust plaintiffs wide latitude to select relevant markets does *not* raise the specter of gerrymandering.[157] As explained in Section I.C, there is no such thing as a real market. And since *every* market is in some definitional sense artificial, to criticize *any* market as artificial or gerrymandered is a categorical mistake.[158]

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[155] *Cf.* SULLIVAN, *supra* note 14, 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.").

[156] *See* 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 21, § 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 6, 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 …".).

[157] *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, *supra* note 22, 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 9, at 532 ("[I]f the Guidelines permitted the exercise of considerable discretion in selecting the relevant market, there would be considerable potential for gerrymandering.").

[158] *See supra* notes 70–71 and accompanying text.

As explained in Section II.A, a relevant market, as validated by the HMT or a comparable standard, exhibits the potential for competitive injury within its scope, at least under assumptions favorable to the theory of harm. This leaves no room for objection to any valid relevant market the plaintiff might choose. So long as an antitrust injury is possible within the proposed market, there is neither basis nor excuse for refusing to consider it.[159]

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,[160] and all that we argue is that multiple market concepts will usually be helpful. Courts have always been free to accept any valid relevant market proposed by the plaintiff.[161] And courts have never been bound by the smallest market principle or any other rote heuristic for defining relevant markets.[162] To the contrary, in determining whether an arrangement has the "potential for genuine adverse effects on competition,"[163] courts must be willing to consider any market in which anticompetitive harm has the potential to arise. This not only condones, but compels, a multiple market paradigm.

IV. DISCUSSION

Our objective, in this paper, has been to explain the core logic of market definition and to expose some of the more troubling errors in market definition practice along the way. The previous sections having addressed that objective,

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[159] 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 13, 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.").

[160] *See supra* note 141 and accompanying text.

[161] *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).

[162] *See* Baker, *supra* note 25, 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.").

[163] *See* F.T.C. v. Indiana Fed'n of Dentists, 476 U.S. 447, 460 (1986).

we now offer brief remarks on the implications that a proper understanding of market definition has for broader aspects of antitrust law.

A. NECESSITY FOR MARKET DEFINITION

One of the most peculiarly persistent artifacts 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.[164] One version of this idea welds market definition to the substantiality of an antitrust injury, a subject we address in Section IV.B below. Another version casts market definition as the indelible starting point of merger analysis.[165] Another interprets market definition as a necessary element of a claim for relief, with the plaintiff's failure to allege a relevant market grounds for dismissal.[166] All of these ideas are founded on confused notions of what relevant markets are, and what role they play in antitrust analysis.

As we have explained, relevant markets are merely analytical tools used to facilitate evaluation of specific theories of anticompetitive harm.[167] The theory-dependence of markets obviates the notion that market definition should be the strict starting point of antitrust analysis. Such rote ordering only stands to confuse analysis,[168] and to distract from the ultimate question: whether injury has occurred or is likely.[169] A proper understanding of market definition also obviates the idea that allegation of a relevant market is required to state a claim for relief. All that a relevant market does is identify a group of transac-

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[164] *See* F.T.C. 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 67, at 589 ("[M]arket definition unquestionably remains a statutory predicate to finding a Section 7 violation").

[165] *E.g.*, Federal Trade Commission 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.").

[166] *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.").

[167] *See* Section II.A (explaining this point in greater detail).

[168] *See* Salop, *supra* note 23, 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 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).

[169] *See* Rosch, *supra* note 144, 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.").

tions in which competitive injury is possible—at least under assumptions favorable to the theory of harm. At the pleading stage, a relevant market is no more than explanatory context for the allegation of competitive injury itself.[170] If injury has 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 step in antitrust analysis, but also clarifies that it is not a necessary step. 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."[171] The *per se* rules under § 1 of the Sherman Act exemplify this logic. With both logical and doctrinal support for omitting market definition where appropriate,[172] there is no need for courts or litigants to waste time and resources insisting to the contrary.

B. SUBSTANTIALITY OF INJURY

Closely related to claims of market definition's necessity is the notion that market definition serves the role of ensuring an injury is substantial enough to warrant relief under the antitrust laws. This thinking appears to trace to 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.'"[173]

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[170] *Cf.* Carlton, *supra* note 13, 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…").

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

[172] *See id.*; F.T.C. 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, 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).

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

The vitality of this language in modern opinions is entirely disproportionate to whatever shred of logic it may have once contained. Back in the protectionist context of merger review in the 1950s and 1960s, a lay conception of the market might plausibly have helped to determine which competitors required the protection of the antitrust laws.[174] But under the modern consumer-welfare standard, the definition of a relevant market has at best only tangential value in assessing 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 disclaimed not to represent a tolerance level for antitrust enforcement,[175] the motivation for using a *significant* price increase in defining relevant markets 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.[176]

Whether a *de minimis* standard is necessary is a debatable proposition,[177] but even assuming that it is, there is little defense for implementing it as a minimum percentage price-increase in market definition. There are two flaws in this approach. First, as noted earlier, the ultimate concern of a *de minimis* requirement is logically with the size of the competitive effect—and this has little to no necessary correspondence with the size of hypothesized price increase in something like the HMT.[178] Second, if indeed some fixed quantity of harm were needed to justify relief, that should logically be tested by a measure of total harm, not percentage price increase. Intuitively, a 1% increase in the price of $100,000,000 in transactions would seem a 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

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[174] *See supra* notes 36–39 and accompanying text.

[175] *See supra* note 93 and accompanying text.

[176] 2B AREEDA & HOVENKAMP, *supra* note 9, ¶537a, at 306 (emphasis added).

[177] 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, 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.

[178] *See supra* note 97 and accompanying text.

than 5% hypothetical price increases are somehow categorically unworthy of antitrust scrutiny and 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 designed or intended to assess the substantiality of injury in modern antitrust terms. Persisting in trying to use them for this purpose will only lead to confused analysis, if not something worse.

C. DIFFICULTIES & DATA LIMITATIONS

Finally, we wish to recognize a reasonable critique of market definition as we describe it in this paper: 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 economically sophisticated for the minds of generalist judges and juries, and lead to confused and unpredictable results in practice.[179] A related idea is that sophisticated market definition is possible within the federal antitrust agencies, but that different techniques are needed when disputes enter the generalist legal system. Another version of the critique amounts to a pragmatic claim that data availability often constrains and dictates the scope of market definition more than any considerations of economic theory.[180] We concede the challenges identified in these critiques,

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[179] *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 144, at 3 ("A case focused on 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 14, at 63 (discussing concerns about the adjudicatory institution's competence to make the kinds of judgements that sophisticated economic theory demands).

[180] *See, e.g.*, 2B AREEDA & HOVENKAMP, supra note 9, ¶ 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 6, 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 14, 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.").

and do not endeavor, here, to refute these essentially empirical claims about what judges and juries are capable of and what available data allows.

Nor need we. Because even if every one of these claims were in fact true, there would still be value in conducting market definition practice with an eye to its internal logic. 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 allows the plaintiff to propose whatever valid relevant market the imperfect data support, and forecloses complaints that the market is unrealistic or not as good as some alternative choice. The claim that current market definition practice is different before the agencies and the courts only solidifies the need for a clear logical framework to demonstrate why and how the playing field can be leveled between these audiences. And the challenge of assisting generalist judges and juries with the intricacies of the task only emphasizes the need to exposing common fallacies and misguided preconceptions, so that triers of fact may more accurately undertake the analysis that the substantive law demands of them. In short, whatever limitations the frictions of trial and litigation impose on the process, the economic analysis of antitrust questions can only be improved by a clearer understanding of the internal logic of market definition.

V. CONCLUSION

As stated at the outset, our overarching objective in this paper is to clarify the core logic of antitrust 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. But the identification of these fallacies is only a vehicle for helping to explain the internal logic of all the properties of market definition that we have described. 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 only be defined by reference to specified theories of harm. And because theories of harm may be numerous in common applications, multiple helpful relevant markets can and should be defined where the exercise would aid in antitrust analysis. The whole of this paper is thus, we hope, a useful roadmap to the logic of market definition.