THE RELEVANT MARKET:
POSSIBLE AND PRODUCTIVE

GREGORY J. WERDEN*

Professor Louis Kaplow capped off his series on the relevant market with a final essay in this Journal.¹ His premise remains that relevant market is used only to help assess a firm’s market power based on its market share. He claims: (1) “there exists no valid way to make market power inferences from shares” of a multi-product market;² (2) “it is impossible to determine which market definition is superior [in inferring market power] without already formulating one’s best estimate of market power”;³ and (3) delineating the relevant market is “counterproductive in a number of specific [merger] applications.”⁴ Kaplow calls on his critics to demonstrate the relevant market’s utility, and Part I of this essay answers the call. Part II shows that he does not prove his second claim: He mistakenly presumes a single purpose for the relevant market and merely asserts that it is not needed for that purpose. Parts III and IV expose deep flaws in his other claims. Both rest on distorted views of antitrust analysis. The first claim also rests on faulty economics and the third on misapplication of the hypothetical monopolist test (HMT).

I. THE ROLE OF THE RELEVANT MARKET

The only role for the relevant market Professor Kaplow recognizes is “to make market power inferences from market shares.”⁵ He shrugs off all con-

---

¹ Senior Economic Counsel in the Antitrust Division of the U.S. Department of Justice. The views expressed herein are not purported to reflect those of the U.S. Department of Justice.
³ Id. at 365.
⁴ Id. at 361.
⁵ Id. at 369.
⁶ Id. at 363.
trary views\textsuperscript{6} with the comment that he is “skeptical that market definition is useful for other purposes (but, in any event, they are not the focus of [his work]).”\textsuperscript{7} He challenges anyone with a contrary view to “state precisely what the purpose [of the relevant market] is and then indicate, in light of that purpose, just what is the criterion by which one deems some market definition to be superior to another.”\textsuperscript{8} I take up the challenge.

A claim under the Sherman Act is an allegation of harm to some competitive process,\textsuperscript{9} which must be identified.\textsuperscript{10} Delineating the relevant market specifies the product and geographic scope of the particular competitive process allegedly harmed and thereby clarifies the claim and facilitates its assessment.

To delineate the relevant market is to identify, in terms of products and places, the locus of active competitive forces central to the case. As the Supreme Court has taught, the relevant market is “the area of effective competition.”\textsuperscript{11} Competitive forces outside a delineated relevant market are deemed both passive and of secondary importance.

Separating active from passive competitive forces by delineating the relevant market is a rhetorical and analytical device for bringing order to real-world chaos. The criterion by which a court resolves a relevant-market dispute is whether a proposed separation makes good sense in light of the competition issues presented, evidence on industry rivalry, and the HMT.

Although Kaplow declares that “the notion of a relevant market does not exist” in industrial organization economics,\textsuperscript{12} separating active from passive competitive forces is the defining feature of the ubiquitous modeling technique in the field—partial equilibrium analysis. This technique places the analytic spotlight on one narrow sector of the economy and assumes that sector does not affect the rest. The most familiar application of this technique is supply and demand, in which the spotlighted sector is termed the “market” and prices outside the market are held constant.

\textsuperscript{7} Kaplow, supra note 1, at 363 n.3.
\textsuperscript{8} Id.
\textsuperscript{10} See Republic Tobacco Co. v. N. Atl. Trading Co., 381 F.3d 717, 737 (7th Cir. 2004) (“Economic analysis is virtually meaningless if it is entirely unmoored from at least a rough definition of a product and geographic market.”).
\textsuperscript{12} Kaplow, supra note 1, at 364.
Partial equilibrium models used by industrial organization economists posit active strategic interaction confined to a narrow product and geographic scope. Prices outside the modeled interaction are held constant, treating competition from the outside as a passive force. And the best choice generally is to model strategic interaction as roughly congruent in scope with the relevant market, per the HMT. Positing much broader interaction tends to inject complexity without offering insight; positing much narrower interaction misspecifies the true competitive process and risks materially distorting the analysis.

II. KAPLOW’S IMPOSSIBILITY THEOREM

Professor Kaplow offers a purported proof that delineating the relevant market is “impossible”:13 Suppose the relevant market is A or B, with B inclusive of A. Suppose plugging A or B into a black box yields a numerical value for the defendant’s market power. And suppose that the only basis for choosing A or B is comparing those values to one’s best estimate of the true value. Then already having the best estimate makes the exercise pointless. This purported proof is contrived and is built on two unjustifiable assumptions.

Kaplow merely assumes that sensibly delineating the relevant market requires an independent market power estimate. The HMT actually requires less, and largely different, information than assessing the power of a firm in the market, unless it has only one. In principle, and often in practice, determining whether a candidate market passes the HMT is simple. If the candidate market’s demand elasticity is low, it passes; if it is high, it fails.14

Kaplow objects that there is no criterion for determining when the demand elasticity is too high,15 but the criterion implicit in the HMT is well known. A candidate market passes the HMT if its prevailing demand elasticity is less than a critical value that depends on its prevailing margin.16 The critical elasticity is nearly always between 1 and 2 and often close to 1.5.

Kaplow also merely assumes that market power is gauged independently of the relevant market.17 Informal gauging relies on vague notions about the relevant competitive process, which should be refined and verified, in part by delineating the relevant market. Formal gauging involves partial equilibrium modeling that properly separates active from passive competitive forces by delineating the relevant market. Making that separation arbitrarily produces an unreliable result.

13 Id. at 366–67.
14 Werden, supra note 6, at 734–35.
15 Kaplow, supra note 1, at 367 nn.9–10.
17 Kaplow, supra note 1, at 367.
III. MARKET POWER AND MARKET SHARES

Market shares can never be better than crude indicators of market power, but the HMT was developed to ensure they are never entirely useless by guaranteeing that a monopolist in a relevant market, per the HMT, possesses significant market power.18 Professor Kaplow argues, however, that market power should be gauged in the context of “a homogeneous good market,”19 even when a monopolist would not possess significant market power.

Kaplow advocates quantitative gauging of market power using a formula describing the equilibrium price set by a dominant firm.20 The formula relates the amount above short-run marginal cost the firm sets its price to its market share and other factors. Kaplow argues that the formula is “meaningful only in a homogeneous goods market,” so “there exists no valid way to make market power inferences from the shares” in the broader relevant market the HMT might delineate.21

Contrary to Kaplow’s assertions, the formula is fully applicable to multi-good industries. Economists routinely work with supply and demand curves for aggregates of goods, and this formula is no exception. Moreover, neither economists nor courts use the formula much or care much about the amount a defendant sets its price above short-run marginal cost. Market shares are used to answer different questions, which depend on the case.

In Section 2 cases, courts look to the defendant’s share of the relevant market to determine whether it possesses monopoly power, which is associated with a dominant share but not with pricing well above short-run marginal cost.22 In Section 1 cases, courts look to the proportion of the relevant market actually or potentially subject to a restraint to determine whether the restraint has significant potential to harm competition.23 The amount the defendant prices above short-run marginal cost is beside the point. Courts properly look to shares of multi-good relevant markets in both contexts.

18 Kaplow appears to deny even this accomplishment. Id. at 365 n.7.
19 Id. at 364. Such analysis fails if market power arises from control over many close substitutes. Werden, supra note 6, at 735, 744–45. Kaplow acknowledges this critique and suggests that traditional analysis fails as well. Kaplow, supra note 1, at 373 n.22.
20 Kaplow, supra note 1, at 364.
21 Id. at 364–65.
22 See, e.g., Colo. Interstate Gas Co. v. Natural Gas Pipeline Co., 885 F.2d 683, 694 n.18 (10th Cir. 1989) (To establish “monopoly power, lower courts generally require a minimum market share of between 70% and 80%.”); Exxon Corp. v. Berwick Bay Real Estate Partners, 748 F.2d 937, 940 (5th Cir. 1984) (“[M]onopolization is rarely found when the defendant’s share of the relevant market is below 70%.”).
23 E.g., FTC v. Ind. Fed’n of Dentists, 476 U.S. 447, 460 (1986) (“[T]he 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.”).
Finally, courts assess the durability of market power by evaluating entry conditions and must identify when entry—i.e., entry of what products and at which places—could undermine the exercise of market power. Kaplow asks what “criterion for market definition” is used in this context, suggesting there is none. But the criterion is the HMT, and it has long been applied to determine when entry would be “in the relevant market.”

IV. THE COUNTERPRODUCTIVITY CLAIM

Professor Kaplow argues that delineating the relevant market “is always a bad idea” in three settings presented in horizontal merger cases. But his argument is wrong for two of them and also for settings he does not consider.

Kaplow considers unilateral effects only in the context of the Bertrand and Cournot models. Yet auction and bargaining models are just as important, and delineating the relevant market can be a necessary predicate for using these models. Market shares also must be relied upon if no standard model fits an industry. Kaplow’s first reaction to this observation is to suggest that the relevant market cannot be sensibly delineated; then, acknowledging the HMT, he asserts that the HMT does not work. But he is wrong.

Kaplow presents an example of a merger increasing price very little although it increases the HHI enough to fall outside the safe harbor in a relevant market delineated with the HMT. But he offers no reason to think this problematic or to criticize the HMT rather than the safe harbor. And the relevant market he posits resembles none delineated by the HMT. Its demand elasticity of 15 and its margin of 1.5 percent are both an order of magnitude removed from those in actual cases.

24 See Werden, supra note 6, at 731–32.
25 Kaplow, supra note 1, at 363 n.3.
27 Kaplow, supra note 1, at 369–70.
28 See id. at 369 n.12.
30 Werden, supra note 6, at 738 (discussing application of auction models).
31 Id. at 737–38.
32 Kaplow, supra note 1, at 363 n.3, 368 n.10.
33 Id. at 370 n.16.
34 Id. at 371.
35 With a plausible margin and demand elasticity, the merger would increase price much more than Kaplow indicates, perhaps 1%.
Kaplow also presents an example involving a merger creating a monopoly over an industry and increasing price 4.9 percent. He asserts that “[w]e are commanded by the HMT” to delineate a relevant market broader than the industry and posits that the merger then falls within a safe harbor. But no such command exists, and the Justice Department has declared that it uses 4 percent as the significance threshold in such a scenario.

Kaplow argues that there is no need to delineate the relevant market when assessing a merger with the Cournot model. He presents a formula describing the equilibrium, which relates the weighted average margin to the HHI based on output shares and the elasticity of industry demand. Even if, as Kaplow claims, the formula applied “regardless of whether the homogeneous goods market is proper under the HMT,” merger assessment with the Cournot model would require application of the HMT.

Invoking the formula, Kaplow mistakenly asserts that “an estimate of the industry demand elasticity” is sufficient for predicting merger effects. In fact, the formula cannot be used as he suggests because a merger changes everything in it, including the elasticity. A merger simulation can extrapolate from the pre-merger elasticity, assuming, for example, that demand is linear, but such extrapolation is justified only if the industry passes the HMT. If not, a small price increase could lead to a large increase in the demand elasticity, contrary to the demand assumption of the simulation.

Moreover, if the industry fails the HMT, the formula likely does not apply. As Kaplow proposes to use it, the margin, HHI, and demand elasticity all are those for a single homogeneous good, and the formula is derived assuming active strategic interaction confined to that one good. This assumption cannot be justified when that good fails the HMT because it has close substitutes.

---

36 Kaplow, supra note 1, at 371.
39 Kaplow assumes that assessment of unilateral effects with homogeneous goods always relies on an output-reduction theory supported by the Cournot model. But more common is a capacity-closure theory, which requires a different model because the merged firm makes a different trade-off. Werden, supra note 6, at 738 & n.41.
40 Kaplow, supra note 1, at 370.
41 Id. at 371. Kaplow does not propose any analysis for mergers of firms producing close substitutes rather than the same good.
42 Id. at 370.
In assessing coordinated effects, Kaplow argues that delineating the relevant market is “worse than pointless.” He argues that prosecuted cartels “usually” involve a single product, so there is no need to consider coordination beyond a “homogeneous goods industry” and the HMT thus serves no purpose. But multiple products were involved in many major cartels prosecuted over the past decade in the United States e.g., air cargo, auto parts, DRAM, LCD panels, municipal bonds, and real estate. And recent successful merger challenges posited coordination spanning multiple products. To avoid delineating the relevant market, Kaplow would sacrifice such merger challenges.

In the alternative, Kaplow argues that the assessment of likely coordinated effects “should start by identifying what firms we might imagine are more likely to coordinate to raise price as a consequence of the merger,” and he insists that it does not matter “whether that group constitutes the ‘relevant market’” under the HMT. The key point he misses is that the standard method of identifying the scope of likely coordination is the HMT and its accompanying smallest market principle, which were specifically designed for this task. He suggests neither an alternative method of identification nor a reason why the relevant market per the HMT would not jibe with the firms likely to coordinate.

\[44\] Kaplow, supra note 1, at 375.
\[45\] Id. at 374–75 & n.25. Kaplow claims to invoke an “empirically validated tendency,” id. at 375 n.25, yet his writings neither present nor cite any data tabulations that might support this claim. He merely cites lists of prosecuted cartels.
\[47\] Kaplow, supra note 1, at 375 n.25.
\[48\] See Gregory J. Werden, Is There a Principle for Defining Industries? Comment, 52 S. Econ. J. 532 (1985); Werden, supra note 6, at 739. Kaplow wrongly suggests that the HMT “was devised” to assess unilateral effects. Kaplow, supra note 1, at 369 n.12.