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# Ahead of His Time: The Singular Contributions of Richard Markovits

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I am honored to have been invited to contribute to this symposium on the contributions of Richard Markovits to the analysis of antitrust law and policy, reflected in his recently published two-volume ECONOMICS AND THE INTERPRETATION AND APPLICATION OF U.S. AND E.U. ANTITRUST LAW.<sup>1</sup> In important ways, particular in his analysis of mergers, Prof. Markovits, has been a couple of decades ahead of the received wisdom. I will begin my comment by highlighting these contributions. They have become part of the conventional wisdom in recent years, more so than Prof. Markovits's portrayal of his work sometimes suggests. But that should not take away from the credit due Prof. Markovits for seeing some important errors and omissions in antitrust long before others did.

I begin by reviewing Prof. Markovits's prescient contributions to describing the harm from mergers and follow that with some observations on his place in the recent debate about the role of market definition in merger assessment. I then turn to monopolization, the piece of antitrust law and economics I have thought about most. It is in this area that I most notably share "outsider" standing with Prof. Markovits, although our critiques have some differences—not

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<sup>&</sup>lt;sup>1</sup> VOL. I BASIC CONCEPTS AND ECONOMICS-BASED LEGAL ANALYSES OF OLIGOPOLISTIC AND PREDATORY CONDUCT (hereinafter MARKOVITS I) and VOL. II ECONOMICS-BASED LEGAL ANALYSES OF MERGERS, VERTICAL PRACTICES, AND JOINT VENTURES (hereinafter MARKOVITS II) (Springer, 2014).

surprisingly, for such a notoriously complex area of competition law. I begin with a look at Prof. Markovits's critique of the definition of dominance and then his view that it plays an exaggerated and unnecessary role in exclusion cases, a view with which I generally concur.

Viewing Prof. Markovits as a kindred spirit, however, does not mean agreement with everything he has to say. I conclude by taking issue with his emphasis on the role of intent in defining illegality as a defining characteristic of monopolization, be it exclusion or predation. That criticism is likely a dispute I as an economist have with antitrust lawyers collectively than with Prof. Markovits specifically. Perhaps ironically, my concerns regarding intent may have the unintended and unexpected effect of grouping Prof. Markovits among many in the antitrust bar with whom he typically and insightfully disagrees.

#### The harm from mergers

I first became acquainted with Prof. Markovits's work while I was a staff economist at the Antitrust Division. In the Spring of 1979, Prof. Markovits came to give a talk on how to view the harm from mergers. I do not recall how Prof. Markovits's talk fit into the timeline for the issuance of the first modern Horizontal Merger Guidelines in 1982.<sup>2</sup> But whether it was before, after, or during the preparation of the Guidelines, the dominant paradigm for determining the harm of a merger was to assess the level of concentration of firms, with identical products, within a specific product and geographic market. Whether one should measure concentration by the sum of shares of the top four firms (the four-firm concentration ratio or "CR4"), as had been the fashion, or the sum of the squares of the shares of the firms (the Herfindahl-Hirschmann

<sup>&</sup>lt;sup>2</sup> U.S. DEPARTMENT OF JUSTICE, HORIZONTAL MERGER GUIDELINES (1982, *rvsd.* 1984), *available at* http://www.justice.gov/atr/hmerger/11249.pdf.

Index or "HHI"), was one of the major issues under discussion. The leading conceptual innovation, though, was to propose a procedure for defining what "relevant market" should mean under antitrust law, based upon the smallest range of products and production locations over which a hypothetical monopolist could profitably institute a "small but significant non-transitory increase in price"<sup>3</sup> or, as frequently abbreviated, the "SSNIP" test.

Into this setting, Prof. Markovits suggested not that one particular measure or method of market definition was better than another based on some relatively arcane criterion. Rather, Prof. Markovits came to say that the standard method of assessing mergers didn't need to be tweaked; it needed to be discarded. In his view, the harm from mergers was almost shockingly straightforward, based directly on the change in options available to buyers. In his view, firms offer not identical but different products. Different buyers have different rankings over the different products available. We can think of this ranking as based on the net value the buyer gets from the product, the difference between the value the consumer gets and the price. In standard economic jargon, this would be called "consumer surplus." In this setting, the supplier of the buyer's first choice can set a price only high enough so that the buyer's second choice becomes appealing.

Prof. Markovits's key and keen observation was that mergers affect a buyer only when the suppliers of the buyer's top two ranked firms merge. An example can illustrate the principle. Suppose firms A and B are the merging parties. If the buyer's top choice is supplied by C and the second choice by D, the ability of C to charge a premium to the buyer is unaffected by the merger. If the buyer's top choice is C and the second choice is either A or B, the premium for C is still unaffected by the merger, as the post-merger firm retains the incentive to supply A or B

<sup>&</sup>lt;sup>3</sup> *Id.* at II.A.

on the terms it offered it pre-merger. Similarly, if the buyer's top choice is either A or B and the second choice is C, it cannot increase the premium it charged pre-merger, since the buyer could then switch to C post-merger as easily as she could before. However, suppose the buyer's first choice is A and second choice is B. Now, the firm can force the buyer to compare its first choice with her third best alternative, call that E. It can then raise the price of A (whichever was top-ranked) to the point where the buyer would turn not to B, but to E.

One obvious problem with this is that typical markets do not seem to have buyer-specific prices, a topic to which I will return. However, when I heard Prof. Markovits present this theory of merger effects many years ago, it seemed to make a lot of sense. Nevertheless, the structure/conduct/performance paradigm, refined but not rejected by the 1982 Horizontal Merger Guidelines, continued to carry the day.

In the ensuing decades, Prof. Markovits's conception has ended up faring very well. It gradually became evident<sup>4</sup> that the market definition process and HHI standard in the Horizontal Merger Guidelines applied primarily, if not only, to mergers where the harm was that the merger would facilitate collusion—what we now call "coordinated effects."<sup>5</sup> The relevant market had to be large enough for the potential price increase to matter—the SSNIP test again—yet where the market was concentrated enough—the HHI standard—so that collusion was plausible. The economic rationale for the HHI test in this context is that the HHI is a measure of the ability of

<sup>&</sup>lt;sup>4</sup> LAWRENCE WHITE, HORIZONTAL MERGER ANTITRUST ENFORCEMENT: SOME HISTORICAL PERSPECTIVES, SOME CURRENT OBSERVATIONS, NYU Law and Economics Research Paper No. 06-11, available at http://ssrn.com/ abstract =878452.

<sup>&</sup>lt;sup>5</sup> U.S. DEPARTMENT OF JUSTICE AND THE FEDERAL TRADE COMMISSION, HORIZONTAL MERGER GUIDELINES (2010), *available at* http://www.justice.gov/atr/public/guidelines/hmg-2010.pdf (hereafter "2010 Merger Guidelines"), §7.

cartel participants to ascertain if variation in demand is the result of random actions of buyers or because someone cheated on the cartel, that is, cut the price.<sup>6</sup>

The antitrust community came to accept Prof. Markovits's insight that facilitating collusion was not the only, or even the main, argument against mergers. Rather, as he suggested long ago, the concern can and often will be with the elimination of competition between the merging parties themselves—what has come to be called "unilateral effects."<sup>7</sup> Observers, including the antitrust agencies themselves, have noted that the paradigm pioneered in the 1980's Horizontal Merger Guidelines does not pertain to mergers where the effects are unilateral. For example, in the 2010 Merger Guidelines, the U.S. antitrust agencies state

Diagnosing unilateral price effects based on the value of diverted sales need not rely on market definition or the calculation of market shares and concentration. The Agencies rely much more on the value of diverted sales than on the level of the HHI for diagnosing unilateral price effects in markets with differentiated products. If the value of diverted sales is proportionately small, significant unilateral price effects are unlikely.<sup>8</sup>

As I imagine Prof. Markovits would be the first to point out, the analysis of unilateral effects does not match his characterization of merger harms as just described. In particular, it does not focus on individual buyers. Still, the leading methods for evaluating unilateral mergers

<sup>6</sup> George Stigler, *A Theory of Oligopoly*, 72 J. POLITICAL ECON. 44 (1964). The HHI also has a rationale when firms are not acting in a coordinated fashion, in that the average markup for firms in a Cournot oligopoly (firms simultaneously choose output rather than price) with different marginal costs will be the HHI, divided by 10,000, divided again by the absolute value of the elasticity of demand. Jonathan Baker, *Market Concentration in the Antitrust Analysis of Horizontal Mergers*, in ANTITRUST LAW AND ECONOMICS 234, 252 (Keith Hylton, ed. 2003). This idea has limited usefulness in merger enforcement, as it predicts that the optimal outcome would be to have the firm with the lowest costs buy and get rid of all of the others, and then subject it to regulation.

<sup>7</sup> 2010 Merger Guidelines, *supra* note 5 at §6.

<sup>8</sup> *Id.* at §6.1.

arguably embody Prof. Markovits's principles. The calculating of "upward pricing pressure"<sup>9</sup> is a cousin, and not very distant, of the unilateral ability to raise price created by a merger in Prof. Markovits's framework. While that framework is centered on buyer-specific pricing, one could view the "diversion ratio"—the fraction of one merging party's buyers that would turn to the other party were the former to raise price—as a percentage-based measure of the fraction of customers who regard the goods sold by the merging party's as in the top two. Intentionally or not, this statement of the Antitrust Division's and Federal Trade Commission's merger policy could have been Prof. Markovits's handiwork:

In some cases, the Agencies may seek to quantify the extent of direct competition between a product sold by one merging firm and a second product sold by the other merging firm by estimating the diversion ratio from the first product to the second product. The diversion ratio is the fraction of unit sales lost by the first product due to an increase in its price that would be diverted to the second product. Diversion ratios between products sold by one merging firm and products sold by the other merging firm can be very informative for assessing unilateral price effects, with higher diversion ratios indicating a greater likelihood of such effects. Diversion ratios between products sold by non-merging firms have at most secondary predictive value.<sup>10</sup>

And when a merger does look at the effect of prices a single buyer would pay for a good offered by multiple sellers—or the price a single seller gets for a good sold to multiple buyers—auction-based models essentially if not explicitly extend Prof. Markovits's model to settings where the multiple sellers are unsure of each other's cost or the buyer's willingness to pay for the product.<sup>11</sup>

<sup>&</sup>lt;sup>9</sup> Joseph Farrell & Carl Shapiro, *Antitrust Evaluation of Horizontal Mergers: An Economic Alternative to Market Definition*, 10(1) BERK. ELEC. J. THEORETICAL ECON.: POLICIES AND PERSPECTIVES, Article 9 (2010).

<sup>&</sup>lt;sup>10</sup> 2010 Merger Guidelines, *supra* note 5at §6

<sup>&</sup>lt;sup>11</sup> *Id.* at 6.2.

In short, the reorientation in merger policy toward unilateral effects indicates that the antitrust community has moved very much toward the views that Prof. Markovits has proposed for decades. Any assessment of his antitrust contributions should begin with that and, I would hope, lead others to treat his other observations as potential harbingers of the future rather than quixotic tilting at windmills.

## **Market Definition**

Prof. Markovits takes issue with market definition, calling it "arbitrary" and "indefensible." He is not alone in this view; Louis Kaplow prominently espouses it as well.<sup>12</sup> Gregory Werden, perhaps the leading authority on market definition or delineation, has responded in defense.<sup>13</sup>

I do not want to recapitulate that full debate here but offer some observations on Prof. Markovits's critique. Whether or not market definition is indefensible, it is not arbitrary, at least in principle and in many cases in practice. Whatever one thinks of market definition, it did not start out as something the Antitrust Division dreamed up. Rather, the task then Assistant Attorney General William Baxter took on in the early 1980s was to try to bring some uniformity and predictability to merger law by taking the "product market" and "geographic market" categories already in antitrust law rather than by imagining potentially better ones. The Antitrust Division is not in a position to dictate how antitrust, a common law regime in so many ways, is conducted. It can only propose policies that it hopes might slowly steer the ship away from the

<sup>&</sup>lt;sup>12</sup> Louis Kaplow, Why (Ever) Define Markets? 124 HARV. L. REV. 437 (2010).

<sup>&</sup>lt;sup>13</sup> Gregory Werden, Why (Ever) Define Markets? An Answer to Professor Kaplow, 78 ANTITRUST L. J. 729 (2012).

known icebergs. In principle, this process could be pre-empted by legislative imposition of merger standards, but that creates considerable risk both *ex ante*—what would any Congress do if given the opportunity to rewrite the antitrust laws?—and *ex post*—wouldn't the courts have to spend decades coming up with interpretations of whatever Congress decided? Alternatively, the Antitrust Division could have tried to encourage the Supreme Court to impose new categories, but that would have come with the same uncertainties and was likely to be difficult because of *stare decisis*.

Once one makes the pragmatic assumption that merger jurisprudence requires some reference to market definition, the task becomes limiting the arbitrariness that had been the norm in the case law, as Prof. Markovits points out so well had been the case.<sup>14</sup> Defining a market as the smallest reach in product and geographic space such that a hypothetical monopolist could profitably institute a SSNIP is arguably a way to impose standards related to the objective of merger law—fundamentally, preventing SSNIPs. That the number of merger cases fell during the Baxter years, while seen by critics as an indicator of lax merger enforcement, struck me as an indicator that the market definition test had succeeded in reducing uncertainty.

This does not imply that all arbitrariness was removed from the process. One source of arbitrariness arises at the outset: how does one determine what constitutes a SSNIP, both in terms of magnitude (5%? 10 %?) and duration (1 year? 2 years?). The harms to consumers from a merger are a function not just of the SSNIP but of the magnitude of the market over which a SSNIP might follow from a merger. Minimum Hart-Scott-Rodino reporting requirements<sup>15</sup> address this issue to some degree but leave aside the possibility of guidance above this range.

<sup>&</sup>lt;sup>14</sup> MARKOVITS I at 221-222.

<sup>&</sup>lt;sup>15</sup> Hart-Scott-Rodino Antitrust Improvements Act, 15 U.S.C. § 18a.

A less noted ambiguity is that the numerator for a SSNIP depends upon the arbitrary way transactions are structured. Is the product provided by grocery stores food at retail, or is it shelf space provided at the margin between the wholesale and retail price? If grocery margins are around 1% of revenues,<sup>16</sup> then an increase of 100% in the "price" of shelf space will have only about a 1% effect on the price of groceries, far below usual SSNIP margins. Were the size of the market included, the welfare effects would be the same regardless of whether the product was defined as "groceries" or "shelf space," but including the size of the market in the definition makes market definition less predictable. So, some arbitrariness comes with the territory, but that may not mean that market definition is not worth doing.

A more fundamental critique comes from Prof. Markovits's perspective on merger harm as described above. If the harm from a merger is grounded in the elimination of competition between the merging parties, a wider "market" is of little relevance. It is of a piece with his conception of merger harm that market definition would be indefensible. Were market definition required, unilateral effects cases would be left in one of two uncomfortable places. If the market included more than the offerings of the merging parties, then by definition the price increase could if not would be less than a SSNIP, since the relevant market is defined by the smallest reach over product and geographic space where a hypothetical monopolist would be able to impose a SSNIP profitably.

This implies that the effect of the merger is apparently trivial, albeit subject to the potential arbitrariness Prof. Markovits has emphasized and as illustrated above in terms of how one specifies the product or service. On the other hand, it may be difficult to reconcile defining a

<sup>&</sup>lt;sup>16</sup> WALTER JOHNSON, THE INDUSTRY STANDARD FOR GROSS MARGIN IN GROCERIES (2015), *available at* http://smallbusiness.chron.com/industry-standard-gross-margin-groceries-38121.html.

market as just the two firms in a way that would exclude others that would supply a nominally similar product over which a hypothetical monopolist could impose a SSNIP without being arbitrary. For example, it would look peculiar to define a product as "Honda and Toyota cars" to analyze a merger where the harm is the suppression of competition between Honda and Toyota rather than facilitating collusion across all producers of cars similar to those produced by Honda and Toyota.

These observations support Prof. Markovits's contention that market definition is arbitrary if not useless. One potential way out would be to change the focus from a "hypothetical monopolist" to a "hypothetical cartel," asking what is the smallest set of firms that could institute a SSNIP, rather than the smallest definable piece of product space over which a hypothetical monopolist could profitably execute a SSNIP. While this has some appeal, in that it provides a method that could be applied to both coordinated effects and unilateral effects mergers, it runs counter to the long-standing antitrust practice of defining markets in terms of firm-independent products and geographic sales areas.

Instead, the response has been to follow Prof. Markovits's recommendation, at least in part. If market definition has not been rejected outright, it has certainly been deemphasized. Again, quoting the agencies in the 2010 Horizontal Merger Guidelines:

Diagnosing unilateral price effects based on the value of diverted sales need not rely on market definition or the calculation of market shares and concentration. The Agencies rely much more on the value of diverted sales than on the level of the HHI for diagnosing unilateral price effects in markets with differentiated products. If the value of diverted sales is proportionately small, significant unilateral price effects are unlikely.<sup>17</sup>

As noted above, Prof. Markovits is no longer a lone voice criticizing the dominant focus on market definition in merger evaluation. And market definition is still around, particularly for

<sup>&</sup>lt;sup>17</sup> 2010 Merger Guidelines, *supra* note 5at §6.1.

coordinated effects cases and also to some degree in identifying the set of firms that should be covered in a merger simulation used to predict effects throughout a market (assuming constant marginal cost, no product repositioning, and whether logit demand functions approximate actual demand systems). But, as with the related question of what makes mergers harmful, the antitrust community has in many ways come closer to Prof. Markovits's views than one might have predicted when they were first aired.

#### **Defining monopolies**

One of the long-standing problems in antitrust that Prof. Markovits emphasizes is the lack of a useful definition of monopoly or dominance. Even if one finds market definition useful, it is often forgotten that the market definition process as set out in the Merger Guidelines concerns changes following a merger. It is not about whether an individual firm has market power. By definition, a profit-maximizing single firm would find a SSNIP unprofitable. If its current price maximizes profits, raising (or lowering) it would have to result in lower profits. Even if one finds the Merger Guidelines approach to market definition useful in the merger context—and Prof. Markovits largely does not—it does not help one make sense of when a single firm has market power.

Prof. Markovits discusses monopoly or dominance as whether a firm has market power, although in rejecting the notion of "market," he instead proposes to look at "economic power." He also proposes that economic power be defined not only over price but over "quality-orvariety (QV) investment," by which he refers to "decisions to introduce new product variants,

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open up new distributive outlets, or add to the firm's capacity or inventory."<sup>18</sup> At first, this is an uncomfortable combination, as price is something typically increased (in the usual monopoly case; decreased with monopsony) while the QV factors Prof. Markovits proposes are quantities that would be decreased were a firm to have monopoly or oligopoly power. One could make price and QV analyses somewhat similar by noting that raising price entails reducing supply, so one could encapsulate the QV idea into the conventional focus on price by considering "output" in terms of quantity, product variety, locational availability, and ability to increase supply in the near term (through either drawing down inventories or increasing capacity utilization).

Prof. Markovits does incorporate QV factors into his merger framework, focusing on how they affect the difference between the first and second best options for buyers. Antitrust authorities recognize the relevance of these QV factors:

Enhanced market power can also be manifested in non-price terms and conditions that adversely affect customers, including reduced product quality, reduced product variety, reduced service, or diminished innovation. Such non-price effects may coexist with price effects, or can arise in their absence.<sup>19</sup>

<sup>19</sup> 2010 Merger Guidelines, *supra* note 5 at §2.

<sup>&</sup>lt;sup>18</sup> This definition bears some resemblance to the "consumer choice" standard for antitrust proposed by Robert Lande, defined as "the natural range of choices in the market place." Robert Lande, *Consumer Choice as the Ultimate Goal of Antitrust,* 62 U. PITT. L. R. 503, 504 (2001). It may be a somewhat more distant relative of the concern in antitrust with not just static increases in price but dynamic reductions in innovation. Richard Gilbert & Steven Sunshine, *Incorporating Dynamic Efficiency Concerns in Merger Analysis: The Use of Innovation Markets,* 63 ANTITRUST L. J. 569 (1995). I have proposed that when innovation is concerned, antitrust enforcers should remain attentive to static concerns, largely but not entirely because other policy instruments are available to promote innovation (patents, research subsidies) that are not predicated on the suspicion of an antitrust violation. Timothy Brennan, *Should Innovation Rationalize Supra-Competitive Prices? A Skeptical Speculation,* in THE PROS AND CONS OF HIGH PRICES 88 (Arvid Fredenberg, ed., 2007).

I cannot speak from experience as to whether in practice QV get the level of attention in merger cases relative to price that Prof. Markovits gives to QV relative to price in his treatise. I suspect not, if for no other reason than price effects are easier to demonstrate and prove harmful than QV effects.<sup>20</sup> Filling product space or installing excess capacity could be tactics to inhibit entry,<sup>21</sup> but making a case that a firm should not increase its product offerings or its productive capacity is appropriately difficult.

I have elsewhere<sup>22</sup> proposed a test for whether a firm has economic power: See what it would do if it faced a "small but significant non-transitory" decrease in price below what it had chosen—the reverse of a SSNIP. If the firm lacks market power, it would reduce output, since marginal sales at the lower price would no longer cover marginal cost. If it had market power, then it would increase output, since the gain in higher prices from reducing output at the margin would no longer be available. Unfortunately, the theoretical virtue of this test is exceeded by its

<sup>21</sup> Richard Schmalensee, *Entry Deterrence in the Ready-to-Eat Breakfast Cereal Industry*, 9 BELL J. ECON. 305 (1978); A. Michael Spence, Entry, Capacity, *Investment and Oligopolistic Pricing*, 8 BELL J. ECON. 534 (1977); Avinash Dixit, *The Role of Investment in Entry Deterrence*, 90 ECON. J. 95 (1980).

<sup>22</sup> Timothy Brennan and Alan Gunderson, 2006 in Competition Policy and Enforcement: An Economic Perspective, 22 CAN. COMP. REC. 67, 82-83 (2007).

<sup>&</sup>lt;sup>20</sup> The evidentiary difficulties arise because monopolists lack a general incentive to reduce quality, as they have to raise price, because increasing quality increases demand for the product and thus revenues. Where a monopolist balances that increase in revenue against the increase in cost depends on how much more the marginal buyer is willing to pay for added quality. If that amount exceeds the average willingness to pay for quality, the monopolist may have a higher quality product than is optimal. Michael Spence, *Monopoly, Quality and Regulation*, 6 BELL J. ECON 417 (1975). These considerations apply to the QV considerations Prof. Markovits identifies, such as locational availability or maintaining an inventory.

practical limitation. No such experiment is likely to be undertaken without presuming the answer, for example, imposing price regulation because doing so would increase output relative to the monopoly price. It is difficult to imagine natural experiments with the same effect; perhaps observing how a firm reacted to a lifting of a trade or regulatory barrier on entry from others would work. In those settings, and certainly where the reduction in price was mandated by a regulator, the policy change that could inform whether the firm had economic power would probably not have been undertaken absent a prior belief that the firm had economic power. Thus, this test is unlikely to provide useful evidence in advance as to whether market power would justify imposition of those policies.

Absent the availability of a practical and theoretically sound test for economic power or dominance, we are somewhat left in the situation Prof. Markovits describes in not offering an operational definition of dominance. He does suggest that it is a mistake to use the theory of "limit pricing" to substantiate the claim that firms respond to competition by price alone; they may use QV investments. I share Prof. Markovits' skepticism of limit pricing as a theory of how the economic power of a dominant firm is constrained, especially from potential competition.<sup>23</sup> He is also right to point out that QV investments can also protect monopolists from competition, although more as a response to the prospect of entry rather than to entry itself.<sup>24</sup> Neither of those

<sup>&</sup>lt;sup>23</sup> A potential entrant is concerned not with the price a dominant firm currently sets, but the price it will see after it enters. If it cannot recover its sunk entry costs in a timely manner, the prospect of low post-entry prices will discourage entry even if the pre-entry price is at the monopoly level. *See* Marius Schwartz & Robert Reynolds, *Contestable Markets: An Uprising in the Theory of Industry Structure: Comment*, 73 AMER. ECON. REV. 488 (1983).

<sup>&</sup>lt;sup>24</sup> See references to Spence and Dixit at *supra* note 20.

insights, however, helps with the fundamental and, as a matter of practice, open question of how one determines monopoly or dominance other than "I know it when I see it."<sup>25</sup>

#### **Defining exclusion: Prior monopoly**

An assertion that may trigger some opposition on the part of many readers is Prof. Markovits's criticism that in the US courts have held that a firm cannot be found guilty of monopolization unless it has been shown to possess market power prior to engaging in the allegedly-monopolizing conduct.<sup>26</sup> I wholeheartedly agree. Going back to an article in this Journal in 1988,<sup>27</sup> I have argued that exclusionary practices involve not the extension of an existing monopoly. Rather, analysis should begin with the obvious truism that to inhibit the ability of any supplier to compete in any market, one has to acquire the ability to raise the price of an input that supplier uses or a complement that supplier needs.<sup>28</sup> The typical way this would be done would be by cornering the market in the input or complement; exclusive dealing contracts or loyalty rebate programs could be a way to do that.<sup>29</sup> A special case could be a firm

<sup>28</sup> One category of "raising rivals' costs" theories, the "cartel ringmaster" theory takes this approach. Thomas Krattenmaker & Steven Salop, *Anticompetitive Exclusion: Raising Rival's Costs to Achieve Power Over Price*, 96 YALE L.J. 209, 238-40 (1986). My argument is that that should be the only theory, outside the regulated context. See also Mark Ramseyer & Eric Rasmusen, *Exclusive Dealing: Before, Bork, and Beyond*, 57 J. LAW & ECON. SUPP. 145, 156 (2014).

<sup>29</sup> Timothy Brennan, Bundled Rebates as Exclusion Rather Than Predation, 4 J. COMP. L. & ECON. 335 (2008).

<sup>&</sup>lt;sup>25</sup> The famous quote is Justice Potter Stewart's characterization of how to identify hard-core pornography. Jacobellis v. Ohio, 378 U.S. 184, 197 (1964, Stewart, J., concurring).

<sup>&</sup>lt;sup>26</sup> See MARKOVITS I at 78 (in general) and 563 (in relation to predatory pricing).

<sup>&</sup>lt;sup>27</sup> Timothy Brennan, Understanding Raising Rivals' Costs, 33 ANTITRUST BULL. 95 (1988).

that nominally sells an input or complement at a regulated price, but can effectively raise that price to rivals through impeding ability to acquire the regulated product in a timely matter without degradation of quality.<sup>30</sup>

The crucial error Prof. Markovits identifies is that if the cause is the creation of economic power (or evasion of regulatory constraint) in an input or complement market, focusing on the primary market puts the eye on the wrong ball.<sup>31</sup> A firm with little to no presence in the primary market could create a monopoly where none existed by essentially paying enough input or complement suppliers not to deal with rivals; the money comes from the profits created by the effective monopoly in the input market.<sup>32</sup> An early application of "raising rivals' costs" demonstrates this error, where the Department of Justice rejected a claim by Stroh's that Miller had raised its costs by tying up televised sports advertising outlets because, before the practice, Miller had only a trivial share of the market for beer.<sup>33</sup>

For this reason, exclusion should be thought of as complement market monopolization.<sup>34</sup> The complement market is the one that matters. In the above example, the beer market was the

<sup>31</sup> Brennan, *Bundled Rebates*, *supra* note 29 at 368-69.

<sup>32</sup> For this reason, the putative victims of exclusionary abuse of dominance should be regarded as partners sharing in the proceeds from monopolization. Brennan, *Bundled Rebates, supra* note 29 at 364.

<sup>33</sup> Brennan, Understanding Raising Rivals' Costs, supra note 26 at 109-110.

<sup>&</sup>lt;sup>30</sup> This was one of the fundamental claims in U.S. v. AT&T, 552 F. Supp. 131 (D.D.C. 1982). *See* Timothy Brennan, *Why Regulated Firms Should Be Kept Out Of Unregulated Markets: Understanding the Divestiture in U.S.* v. AT&T, 32 ANTITRUST BULL. 741 (1987).

<sup>&</sup>lt;sup>34</sup> For more on this, *see* Timothy Brennan, *Saving Section 2: Reframing U.S. Monopolization Law*, in THE POLITICAL ECONOMY OF ANTITRUST 417(Vivek Ghosal and Johan Stennek, eds. 2007).

wrong market to examine; the issue was whether a new monopoly had been created in the market for television advertising. If Stroh's had other substitute outlets for advertising, or if people could enter easily, its costs could not have been raised. In a more recent example, AMD accused Intel of impeding its ability to compete through loyalty-rebates with PC manufacturers, but the substance of AMD's claim depends not on prior economic power in the chip market but on whether Intel came to dominate the market for PCs.<sup>35</sup> If AMD could place its chips with other manufacturers of PCs viewed favorably in the marketplace, or vertically integrate into PC production on its own, it could not be harmed. To put in terms of E.U. practice, which Prof. Markovits also extensively critiques, the standard phrase "abuse of dominance" should be changed to "abuse creating dominance".<sup>36</sup> Perhaps most important, the more dominant is a firm prior to undertaking an allegedly exclusionary practice, the less likely that practice is to matter. The Canadian Court of Appeal got it right in the *Canada Pipe* case when it found that a practice is exclusionary if the market would have been more competitive but for the practice.<sup>37</sup>

That said, dominance could matter if (a) covering the market reduces the transaction costs or overcomes capital market failures that might impede monopolizing a complement market and (b) the firm might loses its dominance absent monopolizing the complement market. This seems unlikely. However, I would differ with Prof. Markovits regarding the relevance of prior dominance for predation. This is not because I necessarily disagree with Prof. Markovits as a

<sup>&</sup>lt;sup>35</sup> Timothy Brennan, *High-Tech' Antitrust: Incoherent, Misguided, Obsolete, or None of the Above? Comments on Crandall-Jackson and Wright*, 38 REV. INDUSTRIAL ORG. 423, 429-31 (2011).

<sup>&</sup>lt;sup>36</sup> Timothy Brennan, *Getting Exclusion Cases Right:* Intel *and Beyond*," CPI ANTITRUST CHRON. 2, 8 ((1) December 2011).

<sup>&</sup>lt;sup>37</sup> Commissioner of Competition v. Canada Pipe, 2006 FCA 233 (2006).

theoretical matter. Rather, it is because I believe that courts should demand fairly extreme evidence before punishing firms for cutting prices. The point of prior monopoly and, especially cost-based tests as in *Brooke Group*,<sup>38</sup> basically is to require that a plaintiff show that the pricing practice would be unprofitable in any competitive scenario, not just under the circumstances in a particular case. For predation, this strikes me as good competition policy, despite the theoretical possibility that above-cost prices can have predatory effects.<sup>39</sup> For reasons Prof. Markovits states and elaborates upon in his book, however, such tests are inappropriate for exclusion.

### Defining monopolization: Should intent matter?

My last observation involves the role of intent in antitrust. Prof. Markovits defines monopolizing activity as conduct taken with specific anticompetitive intent. He finds that it covers the "Sherman Act concepts of a restraint of trade, monopolizing conduct, or an attempt to monopolize." For reasons I discuss below, this may be the case with restraints of trade and attempts to collude, but when I restrict this to monopolization, it is not clear that he and I share the definition of intent in at least two ways. First, he defines intent as when the "perpetrator's *ex ante* perception of profitability" was "critically inflated" by the perpetrator's belief that it would or might reduce the level of competition from rivals. The phrase "critically inflated" suggests that intent implies a kind of delusion, which seems to have nothing to do with intent. X could have the intent to murder Y by firing a gun at Y, but may have perfectly accurate expectations regarding the accuracy of his (X's) aim and the effect of the bullet on Y.

<sup>&</sup>lt;sup>38</sup> Brooke Group Ltd. v. Brown & Williamson Tobacco Corp., 509 U.S. 209 (1993).

<sup>&</sup>lt;sup>39</sup> Aaron Edlin, *Stopping Above-Cost Predatory Pricing*, 111 YALE L. J. 941 (2002)

The second, more broadly, is Prof. Markovits's view that intent is defined by beliefs. Beliefs may have something to do with intent, as it may be a necessary condition for person X to undertake action A with the intent to have effect E that X believes that undertaking A would bring about E. However, believing that A would bring about E is not sufficient to infer that X intended E, even if X undertook A. If A would have effects beside E, X may well have regretted E and wished that it would not come about.<sup>40</sup> A doctor prescribing a drug with side effects presumably does not intend to cause those side effects, but intends to cure a more serious disease and would rather the side effects not happen. This example illustrates again that "intent" is not about inflated beliefs, or beliefs at all, but, well, intention, that is, desire for the particular effect that an action could bring about.<sup>41</sup>

That criticism of Prof. Markovits's definition of monopolization, however, is secondary to my central complaint: Monopolization cases should not be about intent at all.<sup>42</sup> Antitrust policy should focus on observable competitive effects on consumers (and producers, but I leave the "consumer vs. total" welfare question aside) rather than the psychological state of the alleged monopolist. It should not be surprising that an economist would want antitrust to be about

<sup>41</sup> As an aside, while I am more inclined to agree with Prof. Markovits that a firm's oligopolistic conduct entails its belief that "rivals might or would be influenced by their realization that it might react to their responses," it omits oligopolies where actions are chosen simultaneously, including the standard quantity (Cournot) and price (Bertrand) equilibria. The latter are particularly important as they form the foundation for unilateral conduct approaches that, as described above, follow Prof. Markovits's insights into the harm from mergers.

<sup>42</sup> I go into this in more detail in Timothy Brennan, *Is Complexity in Antitrust a Virtue? The Accuracy-Simplicity Trade-off*, 59 ANTITRUST BULL. 827, 847-48 (2014).

<sup>&</sup>lt;sup>40</sup> This possibility is behind the controversial ethical "doctrine of the double effect," that one sometimes ought to do action with bad effects if the good effects outweigh them.

economics, not mind reading.<sup>43</sup> Although easier to state in principle than to ascertain in practice, if the expected harm from a particular instance or type of conduct exceeds the expected harm, it should be banned; if not, it should be allowed.<sup>44</sup> Whether the instigator of the act intended the effect, regretted the effect, or had no idea it would have the effect, should be irrelevant.

Moreover, if consumer harm (or total net economic loss) is also a criterion for whether an act should be illegal under the antitrust laws, requiring a separate finding of intent will make monopolization more difficult to prosecute than it already is. Relevant intent may not be easy to ascertain, as the normal give and take of market competition will induce statements of desire to get market share at the expense of competitors. Nevertheless, intent evidence may well be useful. Suppose, as suggested above, that intending to do A to get E implies a belief that A will lead to E. Documents on intent would then provide evidence to support an antitrust plaintiff's assertion that a particular act was in fact predatory or exclusionary. In effect, intent evidence becomes equivalent to industry expert testimony on the relationship between conduct and outcome. But the relevance is the outcome, not the mindset that led to it.

The difference in perspective could be the difference in views between whether antitrust should be regarded as civil or criminal law, with the latter having a *mens rea* requirement. Some

<sup>44</sup> Monopolization law should recognize a third option, that a practice could be allowed but limited to a nondominant share of a relevant complement market. *See* Brennan, *Saving Section 2, supra* note 33 at 427-28.

<sup>&</sup>lt;sup>43</sup> It may be worth noting here that when economists refer to "welfare," they are not using the term as a normal person would, to refer to something like "happiness" or "well-being". If so, economics would be already engaged in mind-reading, and arguing against the use of intent as requiring mind-reading would be hypocritical. However, economists mean by "welfare" something empirically observable in principle—the difference between how much one is willing to pay for something and how much one actually pays for it. Whether this corresponds to welfare as internally experienced is something that perhaps economics implicitly assumes but does not (and cannot) address.

of antitrust law is certainly criminal, notably collusion conspiracies under Section 1 of the Sherman Act. But Prof. Markovits's forceful discussion of monopolization illuminates the difference between economists and lawyers—if I may use stereotypes—regarding the meaning and purpose of antitrust. As one involved in the disputes for many years, I had regarded the difference between the disciplines as one simply of priority: whether economic analysis showing that an illegal practice was likely benign should dissuade prosecutors from pursuing cases against that practice. Some horizontal mergers but mostly vertical mergers and restraints were at the center of these disputes, with resale price maintenance being the poster child.

However, the issue may not be about the priority of economics, at least not directly. Rather, it may be that economists and lawyers see antitrust differently. Economists see antitrust as being about setting rules for market participation so that profit motives can be best channeled into generating consumer and net economic benefits. Attorneys, on the other hand, may view antitrust as the pursuit of bad actors, that is, those with malicious intent. At the extreme, dominance plus intent to harm suffice to justify illegality, regardless of the evidence of harm.

If so, the difference is not that antitrust attorneys do not understand or appreciate economic reasoning.<sup>45</sup> It is that antitrust is about character. To an economist, all firms maximize profits; they behave differently only because the environment is different—ability to talk to competitors, having no rivals. Thus, antitrust is merely a form of regulation, not condemnation. To attorneys, firms differ because of their owners and managers' intention not just or even to

<sup>&</sup>lt;sup>45</sup> In recent years, the differences have not been so acute because the ability of economists to come up with an endless variety of complex game theoretic models including different tactics, incomplete information, strategic commitment, and multistage repeated interactions, has allowed economics to fit more comfortably with the attorney's believes that defendants are bad guys to be stopped.

make money but to cause harm along the way. If that is the difference, citing economic theories or econometric evidence of net benefit is irrelevant, because the bad guys are still bad guys and should be stopped from acting on their badness.

## Conclusion

I recognize that these observations do not approximate doing justice to the breadth and detail of Prof. Markovits's assessment of antitrust law and economics. However, I want to leave not with more observations, but with an overall expression of empathy and appreciation. I believe I share with Prof. Markovits the experience of raising questions—sometimes in the pages of this Journal—about doctrines or perspectives that appear rigidly ensconced in antitrust practice. In that regard, I applaud Prof. Markovits's perseverance as well as his analysis. For both his benefit and mine, I am grateful that academic tenure is not subject to revocation because of a *Daubert* test.<sup>46</sup> I take solace in the *Daubert* court's conclusion that "general acceptance' is not a necessary precondition to the admissibility of scientific evidence,"<sup>47</sup> and I remain thankful for the court's observation that while "we recognize that in practice, a gatekeeping role for the judge, no matter how flexible, inevitably on occasion will prevent the jury from learning of authentic insights and innovations," it recognized that academic inquiry must remain more open.<sup>48</sup> In that spirit, I thank and congratulate Prof. Markovits for his book and his many contributions to our understanding of antitrust.

<sup>47</sup> *Id.* at 597.

<sup>48</sup> *Id*.

<sup>&</sup>lt;sup>46</sup> Daubert v. Merrell Dow Pharmaceuticals, 509 U.S. 579 (1993), set out criteria for the admissibility of expert testimony based on whether it