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HEARING ON COMPETITION AND BEHAVIOURAL ECONOMICS

-- Note by Maurice Stucke --

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THE IMPLICATIONS OF BEHAVIORAL ANTITRUST

Paper by Maurice E. Stucke *

Introduction

1. Behavioral economics “is now mainstream.”¹ The economics literature some time ago moved beyond neoclassical economic theory’s assumptions of perfectly rational market participants who pursue with willpower their economic self-interest. Over the past twenty years, the economic literature has increasingly recognized and measured how (i) willpower is imperfect, (ii) people will incur costs to punish unfair behavior, and care about treating others, and being treated fairly, and (iii) the biases and heuristics that affect decision-making. Behavioral economics is also timely. The financial crisis raised important issues of market failure, weak regulation, moral hazard, and our lack of understanding about how many markets actually operate. In 2011, the Organisation for Economic Co-operation and Development (OECD) noted how “the worst financial and economic crisis in our lifetime”² has prompted policy makers to ask: “Are our economic theories, our economic models, and our assumptions still valid?”³

2. As behavioral economics (with its more realistic assumptions of human behavior) goes mainstream in academia and the business world, one expects lawyers and economists to bring the current economic thinking to the competition agencies. How should the competition agencies respond? This paper examines how competition authorities can consider the implications of behavioral economics on four levels:

- *first* as a gap filler, i.e., to help explain “real world” evidence that neoclassical economic theory cannot explain,
- *second* to assess critically the assumptions of specific antitrust policies, such as merger review and cartel prosecutions,
- *third* to revisit three fundamental antitrust questions, namely what is competition, what are the goals of competition law, and what should be the legal standards to promote those goals, and
- *fourth* to assess how behavioral economics will affect the degree of convergence/divergence of competition law among the over 100 jurisdictions with competition laws today.

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¹ Dan Lovullo & Olivier Sibony, *The Case for Behavioral Strategy*, MCKINSEY Q. 30 (Spring 2010).

² OECD Secretary-General’s Strategic Orientations for 2011 and Beyond, Meeting of the OECD Council at Ministerial Level 2 (May 2011).

³ *Id.* at 2.

1. Level I: Behavioral Economics as a Gap Filler

3. At times neoclassical economic theory cannot easily be reconciled with evidence of the parties' behavior, intent, motives, or post-merger plans.⁴ In the European Commission's prosecution of Microsoft for abusive tying,⁵ for example, Microsoft's defense was premised on neoclassical economic theory. The Commission and Court of First Instance responded with actual consumer behavior, which the behavioral economics literature explains well.

4. The Commission accused Microsoft, inter alia, of tying its media player to its personal computer operating system, where it had (and still has) a monopoly for personal computer operating systems.⁶ Media players enable consumers to store and play music and videos on their computers (and now on handheld devices). The Commission, like the district court in the U.S. antitrust case, observed how the personal computer software industry was characterized with network effects.⁷ The Commission argued, and Court of First Instance found, that such bundling would discourage investment in "all the technologies in which Microsoft could conceivably take an interest in the future."⁸ Microsoft's tying created "a disincentive for

⁴ In *Eastman Kodak Co. v. Image Technical Services, Inc.*, 504 U.S. 451, 495 (1992), defendant argued as a matter of economic theory that, absent interbrand market power, a manufacturer could not raise the price for its aftermarket parts or services. Rational consumers considering the purchase of the equipment "will inevitably factor into [their] purchasing decision the expected cost of aftermarket support." *Id.* at 495 (Scalia, J., dissenting). But the record in *Kodak* did not show that higher prices to service and repair Kodak photocopiers did (or likely would) lead to a disastrous drop in Kodak's photocopier sales. Contrary to Kodak's theoretical claims, the evidence did not show that (i) Kodak actually priced its equipment at below-market prices and its services at supra-competitive prices for an overall competitive price; (ii) Kodak's customers engaged in lifecycle pricing; or (iii) Kodak's competitors would provide this costly lifecycle information. Kodak's claims were inconsistent: buyers were sufficiently sophisticated to engage in accurate lifecycle pricing but too naïve in blaming Kodak for poor service of their copier machines. *Kodak* is problematic even under neoclassical theory: even if customers possessed perfect foresight, a customer, after buying a photocopier, faces switching costs if the supplier raises the price of service. As economist Roger Noll indicated to me, even in a perfectly competitive market (which copiers were not), the equilibrium--whereby copier prices were below long-run average cost and service prices were above long-run average cost--creates inefficiency. This price structure induces consumers to buy new copier machines too frequently.

⁵ Commission of the European Communities, Commission Decision of 24.03.2004 relating to a proceeding under Article 82 of the EC Treaty ¶ 5 (Case COMP/C-3/37.792 Microsoft (Apr. 21, 2004), http://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=1_37792 [hereinafter EC Microsoft] (second Statement of Objections).

⁶ Microsoft by the late 1990s accounted for more than 95% of the licensing of all Intel-compatible PC operating systems worldwide. *United States v. Microsoft Corp.*, 253 F.3d 34, 54 (D.C. Cir. 2001). "Operating systems perform many functions, including allocating computer memory and controlling peripherals such as printers and keyboards," found the court, including the "function as platforms for software applications." *Id.* at 53. As of April 2012, Microsoft controlled over 90% of that market. <http://www.netmarketshare.com/operating-system-market-share.aspx?qprid=8&qpcustomd=0>.

⁷ One complaint was that with its operating systems monopoly (enforced by network effects), Microsoft could ward off potential threats by tying its imitation product. Once Microsoft added its version, the Commission found, programmers developed solutions for the Microsoft platform because it would reach automatically 90% of client PC users, and thus save the content providers the costs of supporting different technology platforms. EC Microsoft ¶ 880. Under this positive feed-back loop, more users of a given software platform lead to a greater incentive to develop products compatible with that platform, which reinforces that platform's popularity with end-users (and the software company's market power). EC Microsoft ¶ 882. Thus Microsoft chilled the incentives for potential innovators to challenge the entrenched monopolist. *Id.* ¶ 891.

⁸ Case T-201/04, *Microsoft Corp. v. Comm'n*, 2007 E.C.R. II-3601 [hereinafter CFI Microsoft].

users to use third-party media players and for OEMs [original equipment manufacturers] to pre-install such media players on client PCs.”⁹ Given this disincentive, the concern was that Microsoft’s tying would weaken competition among media players “in such a way that the maintenance of an effective competitive structure would not be ensured in the near future.”¹⁰

5. Under neoclassical economic theory, it is difficult to see any significant foreclosure and resulting harm to competition. Microsoft’s Windows Media Player came with the Windows operating system. But no one disputed that consumers, after unpacking the computer and starting it up, could search the Internet for the media player they want, download the software to their computer, and use that media player to stream music or videos.¹¹ The Commission never argued that consumers were unaware of competing media players. This was unlikely. Consumers presumably knew of RealNetworks’s media player: it was part of Microsoft’s earlier operating system.

6. Nor were consumers or the original equipment manufacturers disadvantaged if they selected an alternative media player. After the U.S. consent decree, Microsoft could not design its operating system to hamper rival media players, as it earlier did with its Internet browser.¹² Nor could Microsoft contractually require software developers, content providers, or anyone else to distribute or promote exclusively or mainly its Windows Media Player.¹³ Microsoft’s operating system could run one or more media players without affecting the media players’ performance.¹⁴ Nor were consumers forced to use Microsoft’s media player. Consumers could set another media player as the default option.¹⁵ Consequently, how could Microsoft foreclose competition when consumers could download (often for free) Apple’s and RealNetworks’s media players off the Internet?¹⁶

7. One could strain under neoclassical economic theory to find coercion. First, consumers, particularly without broadband Internet service, must expend some time and effort to download a media player.¹⁷ Second, computer manufacturers and consumers could not delete Microsoft’s media player.¹⁸ Any media player would be in addition to Microsoft’s Player.¹⁹ Thus the computer memory, taken by Microsoft’s Player, was unavailable for other purposes. Third, Microsoft devised its software so that its

⁹ Press and Information, CJE/07/63, Press Release No 63/07, Judgment of the Court of First Instance in Case T-201/04, Microsoft Corp. v Commission of the European Communities (Sept. 17, 2007).

¹⁰ *Id.*

¹¹ CFI Microsoft ¶ 829. Moreover media players may be sold in retail outlets or distributed with other software products. CFI Microsoft ¶ 830.

¹² EC Microsoft ¶ 796 n. 922.

¹³ CFI Microsoft ¶ 995 (no exclusivity provisions).

¹⁴ *Id.* at ¶ 993.

¹⁵ *Id.* at ¶¶ 952 & 932 (a “not insignificant number of customers continue to acquire media players from Microsoft’s competitors, separately from their client PC operating system, which shows that they regard the two products as separate”).

¹⁶ The Commission questioned the extent the media players were free. EC Microsoft ¶ 847. Consumers today can download a free copy of RealPlayer (<http://www.real.com/realplayer>), QuickTime (<http://www.apple.com/quicktime/download/>), and other media players (<http://download.cnet.com/windows/media-players/>).

¹⁷ EC Microsoft ¶¶ 866-67. The scarcity of broadband Internet, slower download times, and failed downloads also may have contributed to consumers’ sticking with the default.

¹⁸ CFI Microsoft ¶¶ 832, 837.

¹⁹ *Id.* at ¶ 946.

Player could override the consumer's default setting and reappear when the consumer used Microsoft's web browser, Internet Explorer, to access media files streamed over the Internet.²⁰

8. While annoying, these factors hardly justify a finding of foreclosure. If other media players offered superior performance for free or at an attractive price,²¹ rational consumers would incur the costs to acquire a competing media player. Put simply, if the benefits of using a competing media player outweigh the costs, rational consumers would switch. Since rational consumers would switch to media players of "better quality,"²² then software programmers and music companies would support the superior players' formats. Microsoft's attempt to thwart the competitive threat of middleware (or leverage its monopoly to the media player market) would fail.

9. If many consumers did not download competing media players when they could have, then this behavior, under neoclassical economics theory, is consistent with competition on the merits. Rational consumers could and would switch to superior media players. If consumers did not switch, then Windows Media Player's quality must equal or surpass that of competing media players.

10. Herein was the problem. Windows Media Player's growth, as Microsoft recognized, was not attributable to superior quality.²³ Consequently, fewer consumers than neoclassical economic theory predicted were switching to superior media players.

11. For a rational choice theorist, the default option (assuming low transactions costs and no informational asymmetries) is irrelevant. Say consumers prefer Windows Media Player. If computer manufacturers installed another media player, then consumers would switch to Windows Media Player. So whatever the default option, consumers should readily opt for the superior media player. But if Microsoft seriously considered downloading as "an equivalent alternative to pre-installation," observed the Commission, then Microsoft's "insistence on maintaining its current privilege of automatic pre-installation appears inconsistent."²⁴

12. As the behavioral economics literature shows, the setting of the default often can determine the outcome--even when transaction costs are nominal.²⁵ Default options have played an important role in participation and investments in retirement savings, contractual choices in health-clubs, organ donations, car insurance plans, and participation in class actions.²⁶ In antitrust cases, default options can help

²⁰ *Id.* at ¶ 974.

²¹ EC Microsoft ¶¶ 847-48.

²² CFI Microsoft ¶ 971.

²³ CFI Microsoft ¶ 1057; EC Microsoft ¶ 948.

²⁴ *Id.* ¶ 871.

²⁵ RICHARD H. THALER & CASS R. SUNSTEIN, *NUDGE: IMPROVING DECISIONS ABOUT HEALTH, WEALTH, AND HAPPINESS* 78 (2008).

²⁶ OECD, *CONSUMER POLICY TOOLKIT* 46-47 (2010); THALER & SUNSTEIN, *supra* note 25, at 129-30; Stefano DellaVigna, *Psychology and Economics: Evidence from the Field*, 47 J. ECON. LIT. 315, 322 n.11 (2009); Eric J. Johnson et al., *Defaults, Framing and Privacy: Why Opting In-Opting Out*, 13 *MARKETING LETTERS* 5-15 (2003) (consent to receive e-mail marketing); C. Whan Park et al., *Choosing What I Want Versus Rejecting What I Do Not Want: An Application of Decision Framing to Product Option Choice Decisions*, 37 J. *MARKETING RES.* 187-202 (2000) (car option purchases); European Consumer Consultative Group, *Opinion on Private Damages Actions* 4 (2010), http://ec.europa.eu/consumers/empowerment/docs/ECCG_opinion_on_actions_for_damages_18112010.pdf (in European countries, where the default option was opt-in, so that consumers had to opt into the class, the rate of participation in class actions for consumer claims was less than one percent; whereas under opt-out

foreclose rivals. The consumer choice that spurs competition is a deliberative choice among several options. But if many consumers opt for the default option, then being the default option (or the first option encountered) provides a significant competitive advantage. Firms may compete more to become the default option (such as payments to an Internet browser to be the default search engine) than on other dimensions (objectively providing responsive information to search requests).

13. Not surprisingly, firms and consumers can have different preferences over the default option.²⁷ Regulators and the industry also battle over whether consumers need to opt-out or opt-in. Microsoft preferred having its inferior media player as the default choice, thereby requiring consumers to opt out. As Microsoft recognized, some consumers would reject the default media player and download a rival player. But many consumers would stick with the default media player. Consequently, the Court of First Instance recognized that consumers “who find Windows Media Player pre-installed on their client PCs are generally less inclined to use another media player.”²⁸ The Commission was blunter: “A supply-side aspect to consider is that, while downloading is in itself a technically inexpensive way of distributing media players, vendors must expend resources to overcome end-users’ inertia and persuade them to ignore the pre-installation of [Windows Media Player].”²⁹ This quote also illustrates the fallacy of equating a remedy (e.g., making it easier for consumers to choose) with a competitive outcome (e.g., consumers will search the Internet and download a rival software program). Even if the competition agency has made competitive alternatives technically feasible, inexpensive, and simple under the auspices of its proposed remedy, this does not mean that consumers always will exercise that choice. Not only is inertia at work. Some non-computer savvy consumers may believe that the default option represents the computer manufacturer’s choice of the superior media player.³⁰ Status quo bias explains why many consumers remain with the default option, even though neoclassical theory predicts that many consumers would download superior alternative media browsers.³¹

14. Consequently, behavioral economics can serve as a gap filler—namely, to understand better observed behavior (such as the importance of the default option) that neoclassical economic theory cannot satisfactorily explain. Here the competition agency has the benefit of observing the anticompetitive effects; its difficulty is using neoclassical economic theory to explain the observed conduct. If the agencies follow the evidence wherever it leads them, then the agencies need behavioral economics in their toolkit to better understand the firm-consumer interactions.

2. Level II: Revisit Assumptions under Neoclassical Economic Theory

15. Often, however, competition authorities have to predict competitive consequences, notably in reviewing proposed mergers and determining the deterrent effect of increasing sanctions for price-fixing cartels. Thus, on a second level, behavioral economics can spur the agencies to reassess critically specific assumptions of their economic theories. Two examples are merger review and cartel prosecutions.

regimes (where the default is that one is a class member unless one opts out), participation rates were typically very high (97% in the Netherlands and almost 100% in Portugal)).

²⁷ Board of Governors of the Federal Reserve System, Final rule; official staff commentary, 12 C.F.R. Part 205, <http://www.federalreserve.gov/newsevents/press/bcreg/bcreg20091112a1.pdf> (majority of surveyed participants preferred setting the default as opt-in (consumers having to opt into the bank’s overdraft program) rather than having to opt out (which many banks preferred)).

²⁸ CFI Microsoft ¶ 980.

²⁹ *Id.* at ¶ 1052 (quoting EC Microsoft ¶ 870).

³⁰ CFI Microsoft ¶ 1050.

³¹ RICHARD H. THALER, THE WINNER’S CURSE: PARADOXES & ANOMALIES OF ECONOMIC LIFE 68-70 (1992).

2.1 *Merger Review*

16. In assessing a proposed merger, competition authorities typically assume that actual marketplace behavior comports with rational, profit-maximizing behavior. Overlaying this assumption are at least five assumptions:

- the relevant anticompetitive effects often would manifest themselves as higher prices;³²
- anticompetitive effects are likely only in highly concentrated (not moderately concentrated to unconcentrated) markets;³³
- even in highly concentrated markets, anticompetitive effects are unlikely given certain economic conditions (e.g. big buyers or sellers that would discipline any non-cost-based price increase post-merger);³⁴
- anticompetitive effects are unlikely, absent high entry barriers;³⁵ and
- many companies merge to generate significant efficiencies.³⁶

³² The 2010 U.S. Horizontal Merger Guidelines are an improvement over the earlier guidelines in recognizing non-price competition. U.S. Dep't of Justice & Fed. Trade Comm'n, Horizontal Merger Guidelines § 1.0 (19 Aug. 2010), <http://www.justice.gov/atr/public/guidelines/hmg-2010.html> (explaining how market power can be manifested in “non-price terms and conditions that adversely affect customers, including reduced product quality, reduced product variety, reduced service, or diminished innovation” and how such “non-price effects may coexist with price effects, or can arise in their absence”). But the 2010 Guidelines still focus on the merger’s price effects. The Commission likewise recognizes non-price anticompetitive effects, but uses “the expression ‘increased prices’” as “shorthand for these various ways in which a merger may result in competitive harm.” European Commission, Guidelines on the Assessment of Horizontal Mergers under the Council Regulation on the Control of Concentrations between Undertakings (2004/C 31/03) § 8.

³³ FED. TRADE COMM'N & U.S. DEP'T OF JUSTICE, MERGER CHALLENGES DATA, FISCAL YEARS 1999–2003, at 2 (2003), available at <http://www.usdoj.gov/atr/public/201898.htm> (“Although large market shares and high concentration by themselves are an insufficient basis for challenging a merger, low market shares and concentration are a sufficient basis for not challenging a merger.”); EC Merger Guidelines §§ 19-20 (Commission “unlikely to identify horizontal competition concerns in a market with a post-merger HHI below 1000” as such markets “normally do not require extensive analysis” and is “also unlikely to identify horizontal competition concerns in a merger with a post-merger HHI between 1000 and 2000 and a delta below 250, or a merger with a post-merger HHI above 2000 and a delta below 150” with several exceptions).

³⁴ See, e.g., EC Merger Guidelines § 64 (“Even firms with very high market shares may not be in a position, post-merger, to significantly impede effective competition, in particular by acting to an appreciable extent independently of their customers, if the latter possess countervailing buyer power.”).

³⁵ EC Merger Guidelines § 68 (“When entering a market is sufficiently easy, a merger is unlikely to pose any significant anti-competitive risk. Therefore, entry analysis constitutes an important element of the overall competitive assessment.”); US Merger Guidelines § 9 (“A merger is not likely to enhance market power if entry into the market is so easy that the merged firm and its remaining rivals in the market, either unilaterally or collectively, could not profitably raise price or otherwise reduce competition compared to the level that would prevail in the absence of the merger.”).

³⁶ Fed. Trade Comm'n & U.S. Dep't of Justice, Commentary on the Horizontal Merger Guidelines v (Mar. 2006), <http://www.justice.gov/atr/public/guidelines/215247.htm> (“[t]he vast majority of mergers pose no harm to consumers, and many produce efficiencies that benefit consumers in the form of lower prices, higher quality goods or services, or investments in innovation”).

17. Behavioral economics can spur the competition agencies to revisit these assumptions and explain behavior that deviates from their theories' predicted behavior.³⁷ To illustrate, take the first assumption. The key question the agencies pose to the merging companies' customers is what would happen if the prices of the merging companies' products increased by a small but significant nontransitory amount (SSNIP), generally five to 10 percent.³⁸ The agencies asks the SSNIP question to define the relevant market, which assists the agency in tackling the ultimate issue of whether the merger facilitates the exercise of market power. If the SSNIP inquiry suggests a broad product or geographic market, then the merging parties' market shares and the industry concentration levels are likely to be lower, and the agency will unlikely challenge the merger.

18. Under neoclassical economic theory, the way the choice is framed should not affect the rational profit-maximizer's response. This leads to the following puzzle:

One of the pieces of evidence that is commonly cited by farmers as evidence of buyer power is that there is an asymmetric price response of retail products to farmgate price changes. This means, for example, that when there is a supply shortage that raises farmgate prices, the increase is immediately passed on to consumers, while when there is a decrease in farmgate prices, the expected decrease in retail prices appears gradually and results in high profits to intermediaries during the period in which prices are unusually high. While there is substantial evidence of price asymmetry, it is not clear that this arises from buyer power. An alternative explanation is that such asymmetry arises from different search patterns by consumers when they face increasing prices compared to decreasing prices. In particular, they may search more aggressively for alternative suppliers when prices increase, but less aggressively when prices are stable or slowly decreasing.³⁹

19. The behavioral economics literature suggests that “framing effects” (how the issue is worded or framed) do matter.⁴⁰ Consumers typically base a deal's “value” on the deviation from an established reference point (for example, a sale of twenty percent off the regular price). Consumers may be less concerned when a discount is eliminated than when prices increase (although both have the same net effect). Thus deviations from the perceived reference point are marked by asymmetric price elasticity: consumers are angrier about, and more sensitive to, price increases than when the manufacturer eliminates a discount or does not reduce prices during periods of deflation.⁴¹

20. For example, the majority of people, in one survey, indicated that a car dealer's elimination of a \$200 discount off the list price for a popular vehicle was acceptable, whereas seventy-one percent viewed

³⁷ Amanda P. Reeves & Maurice E. Stucke, *Behavioral Antitrust*, 86 INDIANA L.J. 1527 (2011); Maurice E. Stucke, *Behavioral Economists at the Gate: Antitrust in the Twenty-First Century*, 38 LOYOLA U. CHICAGO L.J. 513 (2007).

³⁸ US Merger Guidelines, *supra* note 32, at § 4.1.1; Commission Notice on the Definition of Relevant Market for the Purposes of Community Competition Law, OJ C 372, 9.12.1997, at ¶ 17.

³⁹ OECD, Executive Summary, Competition and Regulation in Agriculture: Monopsony Buying and Joint Selling, DAF/COMP(2005)44, at 8 (2005).

⁴⁰ Daniel Kahneman & Amos Tversky, *Prospect Theory: An Analysis of Decision Under Risk*, 47 ECONOMETRICA 263 (1979); Steffen Huck et al., Consumer Behavioural Biases in Competition: A Survey, Final Report for the OFT ¶¶ 3.10-3.20.11 (May 2011) [hereinafter OFT Report].

⁴¹ Colin F. Camerer, *Prospect Theory in the Wild: Evidence from the Field*, in ADVANCES IN BEHAVIORAL ECONOMICS 148, 152 (Colin F. Camerer et al. eds., 2004) (many consumers “dislike price increases more than they like the windfall gain from price cuts and will cut back purchases more when prices rise compared with the extra amount they buy when prices fall”); Daniel Kahneman, *Maps of Bounded Rationality: Psychology for Behavioral Economics*, 93 AM. ECON. REV. 1449, 1458 (2003).

selling the vehicle \$200 above the list price as unfair.⁴² Both produce the same effect—a higher net retail price—but the direction of the deviation to or from the established reference point differed. Rather than provoke consumer anger by increasing the list price, the merging parties may cancel or reduce the level or size of discounts, which may face less consumer resistance.

21. Alternatively companies may reduce the salience of the price increase, such as reducing product quality or quantity. For example, ice cream in the U.S. was once sold in half-gallon containers. Some companies maintained the price, but shrank the quantity. As one ice cream producer observed:

*Many companies are now offering only 48 oz. of ice cream in each container. A true half gallon contains 64 fluid oz. of ice cream (measured by volume). That is a difference of a full pint of ice cream. Consumers get 33% more ice cream from Blue Bell than most of its competitors.*⁴³

22. Third, the companies can shroud the price increase by making the price terms more complex.⁴⁴ The U.K.'s Office of Fair Trading recently experimented with five common price frames: (i) “drip pricing,” where a lower price is initially disclosed to the consumer and additional charges are added as the sale progresses; (ii) “sales,” where the “sales” price is referenced off an inflated regular price (e.g., was \$2, now \$1); (iii) “complex pricing” (e.g., three-for-two offers), where the unit price requires some computation; (iv) “baiting,” where sellers promote special deals with only a limited number of goods available at the discounted price; and (v) “time limited offers,” where the special price is available for a short period.⁴⁵

23. For the rational profit-maximizer, a price increase is a price increase. How the price is framed, whether the company eliminates a discount or increases retail price, should not matter. Whether the company raises price or reduces the container size from 68 to 48 fluid ounces, consumers should respond the same. But as the OFT experiment found, firms can manipulate consumer consumption behavior and leave them worse off, especially under drip pricing and time-limited offers.

24. Consequently, the agency should be cautious about customer surveys prepared for the merger review on consumer reactions to a 5 to 10 percent price increase of the merging parties' product or service. Kahneman and Tversky's prospect theory predicts that consumers will likely be risk-seeking when avoiding a loss, and thus more willing to switch to alternative products. The survey should inquire the consumers' response if the hypothetical monopolist maintained the price of the merging parties' products, but prices of possible substitutes fell by a small but significant non-transitory amount. If many consumers would switch because of a price increase, but not a price decrease, then framing effects are likely at play.⁴⁶

⁴² Daniel Kahneman et al., *Fairness as a Constraint on Profit Seeking: Entitlements in the Market*, in *ADVANCES IN BEHAVIORAL ECONOMICS*, *supra* note 41, at 252, 257.

⁴³ http://www.bluebell.com/the_little_creamery/still_a_half_gallon.html.

⁴⁴ Xavier Gabaix & David Laibson, *Shrouded Attributes, Consumer Myopia, and Information Suppression in Competitive Markets*, 121 Q.J. ECON. 505, 506 (2006).

⁴⁵ Office of Fair Trading, *The Impact of Price Frames on Consumer Decision Making 6* (May 2010), http://www.oft.gov.uk/shared_of/economic_research/OFT1226.pdf.

⁴⁶ Another reason to be cautious, or even skeptical, about surveys is that they may not adequately capture consumer behavior. Consumers, when asked an abstract question like their response to a ten percent price increase, may instead answer a simpler question, such as how much do they like or value the merging parties' products or services.

2.2 Prosecution of Cartels

25. Several assumptions underlie the neoclassical economic thinking on cartel prosecutions:

- First, general deterrence of cartels (rather than specific deterrence, retribution, incapacitation, and rehabilitation) is the aim for competition authorities.
- Second, executives behave as rational, profit-maximizers, in conducting a cost–benefit analysis to see if the expected gains from participating in the cartel are worth the costs, which include the magnitude of likely punishment discounted by the probability of cartel prosecution.
- Third, to optimally deter cartels, a rational prosecutor would seek, and the court would impose, the optimal penalty, which equals the violation’s expected net harm to others (plus enforcement costs) divided by the probability of detection and successful prosecution.

26. Setting the antitrust fine at the optimal level, neoclassical theory predicts, would result in the socially optimal level of price-fixing. Despite (i) escalating criminal and civil fines in the U.S. (and abroad); (ii) treble private civil damages; (iii) longer jail sentences; and (iv) a generous leniency program, the U.S. has not reached optimal deterrence.⁴⁷ Therefore, before the U.S. responds with greater fines and jail sentences, it makes sense to evaluate the assumptions underlying optimal deterrence theory, and consider how the behavioral economics literature might shed light on achieving general deterrence.⁴⁸

27. Both dispositional traits and situational factors can affect the decision to join and remain in a price-fixing cartel. Dispositional factors refer to “inherent personal qualities that lead to the action: genetic makeup, personality traits, character, free will, and other dispositions.”⁴⁹ Several biases and heuristics skew the price-fixer’s cost-benefit analysis. Under neoclassical theory, sunk costs should not affect the profit-maximiser’s decisions (such as feeling obligated to go to the theatre on a particular night, after purchasing a season subscription). Sunk costs, however, do influence decision-making.⁵⁰ Thus the cost–benefit analysis may differ when an executive decides to (a) join, versus (b) continue in, the price-fixing cartel. Criminals, at times, suffer bounded willpower and knowingly, and contrary to their long-term interests, seek an immediate benefit with deferred costs. Another issue is overconfidence bias, whereby price-fixers overestimate their skills and ability to avoid detection. Price-fixers may suffer from the availability heuristic. Executives, like ordinary citizens, may overestimate the likelihood of incidents that come readily to mind (like homicides) and underestimate the likelihood of less salient events (like deaths from diabetes and stomach cancer or cartel prosecutions).

28. Second, situational factors, which refer to factors outside the actor that generate the behavior, may foster or impede an executive’s willingness to join a price-fixing conspiracy. One observed bias is the fundamental attribution error, when one over-values dispositional or personality-based explanations for other people’s observed behavior while undervaluing situational explanations for the behavior. People make “decision errors that not only harm others, but are inconsistent with their own consciously espoused

⁴⁷ Robert H. Lande & John M. Connor, *Cartels As Rational Business Strategy: New Data Demonstrates that Crime Pays* (March 7, 2012), available at <http://ssrn.com/abstract=1917657> or <http://dx.doi.org/10.2139/ssrn.1917657>.

⁴⁸ I discuss in greater detail the implications of behavioral economics on cartel prosecutions in *Am I a Price-Fixer? A Behavioral Economics Analysis of Cartels*, in *CRIMINALISING CARTELS: A CRITICAL INTERDISCIPLINARY STUDY OF AN INTERNATIONAL REGULATORY MOVEMENT* (Caron Beaton-Wells & Ariel Ezrachi eds., 2011); *Morality and Antitrust*, 2006 COLUMBIA BUSINESS L. REV. 443 (2006).

⁴⁹ PHILIP ZIMBARDO, *THE LUCIFER EFFECT: UNDERSTANDING HOW GOOD PEOPLE TURN EVIL* 7 (2008).

⁵⁰ MAX BAZERMAN & DON A. MOORE, *JUDGMENT IN MANAGERIAL DECISION MAKING* 101-03 (7th ed. 2009).

beliefs and preferences—decisions they would condemn upon further reflection or greater awareness.”⁵¹ Do we largely attribute criminal behavior to some dispositional flaw, which fortunately neither you nor I have?

29. One situational factor that fosters criminality is to begin with a “small, seemingly insignificant first step, the easy ‘foot in the door’ that swings open subsequent greater compliance pressures, and leads down a slippery slope.”⁵² In Stanley Milgram’s famous experiment, the first steps were seemingly innocuous: a supposed mild 15 volt shock, which was less than the slight tingly pain from the 45 volt sample shock each teacher-participant received.⁵³

30. The competition agencies typically do not report how cartels originated, so it is unknown what percentage of cartels originated in smoke-filled rooms versus gradually out of social networks.⁵⁴ A price fixing conspiracy can begin with friends sharing helpful pieces of competitively-sensitive information. For example, managers in the Sydney hotel industry, as part of their friendships, regularly shared competitive information about price and occupancy.⁵⁵ Although the authors did not find any evidence of explicit collusion, they did find a norm within this social group against price cutting.

31. Besides considering situational and dispositional factors that foster price-fixing, the competition authorities can consider the factors that promote the cartel’s durability. Many conspiracies, including those with eleven or more conspirators, can last years, if not decades.⁵⁶ The average duration of international cartels successfully prosecuted between 1983 and 1994 was approximately 90 months; the average duration declined below 80 months for the period 1995 to 1999, and trended upward to nearly 90 months for the period 2005 to 2008.⁵⁷

32. Why are cartels more durable than neoclassical economic theory predicts? One answer may lie in the behavioral economics research: namely, price fixers, like the test subjects in other experiments, may be more trusting and co-operative than neoclassical theory predicts. As the behavioral experiments show, where trust will lead to more favorable outcomes, people tend to trust at a higher level than if all are

⁵¹ Francesca Gino et al., *See No Evil: When We Overlook Other People’s Unethical Behavior*, in SOCIAL DECISION MAKING: SOCIAL DILEMMAS, SOCIAL VALUES, AND ETHICAL JUDGMENTS 241-263 (R. M. Kramer et al. eds. 2009).

⁵² Zimbardo, *supra* note 49, at 274; *see also* Bazerman & Moore, *supra* note 50, at 47-48.

⁵³ Stanley Milgram, *Behavioral Study of Obedience*, 67 J. OF ABNORMAL & SOCIAL PSYCHOLOGY 371 (1963).

⁵⁴ Ralph Blumenthal & Carol Vogel, *Witness Says Price-Fixing for Auctions Began Earlier*, N.Y. TIMES, Nov. 28, 2001, at D2, <http://www.nytimes.com/2001/11/28/nyregion/witness-says-price-fixing-for-auctions-began-earlier.html> (testimony of a separate price fixing agreement that arose from two executives commiserating on the sad state of profitability of the business).

⁵⁵ Paul Ingram & Peter W. Roberts, *Friendships among Competitors in the Sydney Hotel Industry*, 106 AMERICAN J. OF SOCIOLOGY 387, 392-93 (2000).

⁵⁶ Margaret C. Levenstein & Valerie Y. Suslow, *Breaking Up Is Hard to Do: Determinants of Cartel Duration*, 54 J. OF LAW & ECON. 455, 463 (2011) (of 81 international cartels found to engage in collusion since 1990, cartels’ median and mean duration was 7 and 8.1 years, respectively); John M. Connor, *Cartels and Antitrust Portrayed: Internal Structure—Private International Cartels 1990–2008* 4, 8 (3 Apr. 2009), ssrn.com/abstract=1372849 (finding cartels’ median and mean duration was 57 and 82 months, respectively, and that global cartels lasted 57% longer than the average cartel); Margaret C. Levenstein & Valerie Y. Suslow, *What Determines Cartel Success?*, 44 J. OF ECON. LITERATURE 43, 51-52 (2006) (noting that duration is bimodal, with cartels lasting only one year, and twice as many lasting between four and six years).

⁵⁷ Connor, *Cartels*, *supra* note 56, at 11.

operating under a traditional game theory.⁵⁸ Recent studies of cartels have found the striking sophistication of their organizational structure, including compensation schemes to handle variations in demand for each cartel member's products.⁵⁹ Such compensation schemes reflect "the level of organizational trust and cohesion necessary to implement such a scheme."⁶⁰ Trust then can be either socially beneficial or detrimental, and each individual's level of trust may vary.

2.3 *More Empirical Review*

33. After critically reassessing the assumptions underlying their merger and cartel policies, the competition authority likely will want to assess their neoclassical economic theories' predictive strengths and shortcomings. The behavioral economics can help inform the agency's empirical research agenda. Whatever its label, behavioral economics is essentially empirical. The literature first identifies assumptions underlying prevailing economic theories; second, empirically tests these assumptions and considers alternative explanations; and third, uses the anomalies to create new theories that are further empirically tested. Two worthwhile empirical research projects involve post-merger and post-conviction review.

2.3.1 *Post-Merger Review*

34. Competition agencies can institute specific mechanisms to test empirically the key assumptions underlying their merger policies. First, the agencies should consider routinely reviewing any extensively investigated merger where the agency: (i) took no enforcement action; (ii) permitted the merger in part to be consummated pursuant to a settlement; or (iii) legally challenged the merger, but lost.⁶¹

35. The agency's aim is to test its predictions when it originally reviewed the merger. The agency's predictions and assumptions are often discussed in the agency's internal closing memoranda. When ending a merger investigation, the agency typically discusses why the merger was unlikely to substantially lessen competition. The closing memorandum consequently offers testable predictions (such as whether an entrant or big buyer would defeat the exercise of market power or consumers would shift to another product or geographic area) for the subsequent post-merger review. The agency, two to five years after the merger was consummated, should examine the state of competition in that industry, including pricing levels and non-price components such as innovation, productivity, services, and quality, to the extent observable.

36. Merger retrospectives can be expensive. One issue confronting the competition agency is how it can maximize the usefulness of this exercise while keeping costs down and not tying up enforcement resources for other purposes. To mitigate the burden on the agency and market participants, the agency can develop a two-stage post-merger review. In the first stage, the agency staff would do a quick-look review of post-merger competition in that industry. The staff would interview a small but representative sample of

⁵⁸ Terrance R. Chorvat et al., *Law and Neuroeconomics*, 13 SUPREME COURT ECON. REV. 35, 43 (2005); Colin F. Camerer, *Behavioral Game Theory: Predicting Human Behavior in Strategic Situations*, in ADVANCES IN BEHAVIORAL ECONOMICS, *supra* note 41, at 374, 378 (summarizing trust games). Other neuroeconomics literature suggests that some people are more likely to be trustful and tend to co-operate, while others are more likely to behave according to the standard game theory predictions. Chorvat et al. at 55.

⁵⁹ Levenstein & Suslow, *Breaking Up*, *supra* note 56, at 476; Joseph E. Harrington Jr., *How Do Cartels Operate?*, 2 FOUNDATIONS AND TRENDS IN MICROECONOMICS 1, 57–62 (2006).

⁶⁰ Levenstein & Suslow, *Breaking Up*, *supra* note 56, at 482.

⁶¹ For an informative analysis of published post-merger reviews, see John Kwoka & Daniel Greenfield, *Does Merger Control Work? A Retrospective on U.S. Enforcement Actions and Merger Outcomes* (Nov. 4, 2011), available at <http://ssrn.com/abstract=1954849> or <http://dx.doi.org/10.2139/ssrn.1954849>.

industry participants (for example, in a merger involving household consumer products, the staff would interview buyers from food, drug, and mass merchandiser retailers) about the competition and request from the merged entity a limited quantity of data, including price data. If the quick-look review suggests that competition significantly diminished, the agency would undertake an in-depth review and analyze its predictions. The agency would report whether other factors, besides the merger, might explain the increase in prices or reduction in innovation, productivity, services, and quality. For companies identified as potential entrants in the original merger review, the reviewing agency would analyze, based on its interviews with these identified entrants, why they chose not to enter, or if they did enter, why they were ineffectual.

37. The reviewing agency would describe which, if any, of the merging parties' efficiencies it could verify post-merger, the magnitude of the efficiencies, and the extent consumers directly benefited from such efficiencies. The agency can require that any publicly held company that relies on an efficiency defense to report publicly its claimed efficiencies in its public securities filings. If such disclosure would divulge a trade secret or other confidential commercially sensitive information, then the antitrust agency may excuse the public disclosure of such information. For each year post-merger that the merging parties claim the efficiencies will be realized, the company should report the actual amount of efficiencies realized versus the projected amount. This should temper the company executives from inflating the claimed efficiencies and hold them accountable to the shareholders for pursuing a growth-by-acquisition strategy, while informing the agencies on those efficiencies for particular industries that are more likely to be cognizable and substantial.

2.3.2 *Post-Prosecution Review for Cartels*

38. After prosecuting a cartel, the agency, by itself or through a pilot program with social scientists, should interview the price fixers and publicly report the following:

- How were the cartels (including those with many members) formed and enforced?
- Were the cartel participants more trusting and co-operative than neoclassical theory predicts? If so, why?
- As the number of conspirators increased, were there other specific factors that enabled them to collude?
- Why did certain companies repeatedly violate the antitrust laws?
- What steps did the company take after its earlier conviction to increase antitrust compliance, and why were they unsuccessful?

39. The agency also should make available a computerized database identifying all civil and criminal antitrust consent decrees, pleas, or litigated actions involving cartel activity. The database should include certain industry characteristics, such as:

- the number of conspirators;
- the best estimate of their market shares;
- the length of the conspiracy;
- the product or services market in which collusion occurred;
- the number of competitors who were not formerly alleged to be part of the conspiracy and their market shares;

- the number of entrants and their market shares during the period of the conspiracy; and
- the nature of the conspiracy.

40. The aim of collecting the data is to understand why and how the cartel started, why the executives were apart of the conspiracy, what did they consider, and what factors contributed to the cartel's durability (or instability).

3. Level III: Reconsider Fundamental Assumptions of Competition Theory

41. In Level II, competition authorities consider the implications of behavioral economics on the assumptions underlying specific antitrust policies (such as merger review and cartel enforcement). In Level III, authorities consider the implications of behavioral economics on three fundamental antitrust issues, namely (i) what is competition, (ii) what are the goals of competition law, and (iii) what should be the legal standards to promote those goals.

3.1 Reconsidering Competition

42. Although the concept of competition is central to competition policy and economic thinking in general, defining an “effective competitive process” remains elusive.⁶² Competition authorities can agree that antitrust policy should promote an effective competitive process, competition on the merits, and fair competition. They can agree on some parameters of an effective competitive process, such as a free-market economy, where private actors provide many, if not most, goods and services. They can agree on the desired competitive effects, such as “low prices, high quality products, a wide selection of goods and services, and innovation.”⁶³

43. But the authorities are not necessarily referring to the same theory of competition. For example, the Chicago, post-Chicago, and Populist antitrust schools agree on the desired competitive effects. Yet they have different theories of competition. Moreover even the desired competitive effects do not supply a theory of competition, as the desired effects can conflict. The U.S. Supreme Court, for example, stressed the importance of price competition.⁶⁴ Yet the Court accepted higher prices for more services and less

⁶² I discuss in greater detail the implications of behavioral economics on a theory of competition in *What is Competition?*, in THE GOALS OF COMPETITION LAW (Daniel Zimmer ed., 2012); *Behavioral Exploitation and its Implications on Competition and Consumer Protection Policies*, in THE PROS & CONS OF CONSUMER PROTECTION (Swedish Competition Authority ed., 2012); *Reconsidering Competition*, 81 MISSISSIPPI L.J. 107 (2011).

⁶³ European Commission Guidelines on the assessment of non-horizontal mergers under the Council Regulation on the control of concentrations between undertakings (2008/C 265/07); *Northern Pacific Railway Co v. United States*, 356 U.S. 1, 4 (1958) (“unrestrained interaction of competitive forces will yield the best allocation of our economic resources, the lowest prices, the highest quality, and the greatest material progress”); U.S. Dep’t of Justice, Antitrust Enforcement and the Consumer, http://www.justice.gov/atr/public/div_stats/211491.htm; Fed. Trade Comm’n, Competition Counts: How Consumers Win When Businesses Compete, <http://www.ftc.gov/bc/edu/pubs/consumer/general/zgen01.pdf>.

⁶⁴ *Pac. Bell Tel. Co. v. linkLine Communc’ns, Inc.*, 555 U.S. 438, 451 (2009) (“Low prices benefit consumers regardless of how those prices are set, and so long as they are above predatory levels, they do not threaten competition”) (quotation omitted); *Nat’l Collegiate Athletic Ass’n v. Bd. of Regents of Univ. of Okla.*, 468 U.S. 85, 107-08 (1984) (restraint “that has the effect of reducing the importance of consumer preference in setting price and output is not consistent with this fundamental goal of antitrust law” and restrictions on “price and output are the paradigmatic examples of restraints of trade that the Sherman Act was intended to prohibit”).

intra-brand competition for potentially more inter-brand competition.⁶⁵ Higher prices at times are needed for innovation.⁶⁶

44. Consequently, although neoclassical economic theory has informed our theory of competition, no consensus exists in the U.S. or worldwide on a theory of an effective competition process or “competition on the merits.”⁶⁷ Some consider competition as static price competition migrating toward an idealized end state (the economic model of perfect competition). Others view competition as a dynamic process. Although dynamic competition is generally recognized as more important, antitrust agencies and courts generally avoid dynamic efficiency analysis; they focus instead on static price competition and productive efficiencies.⁶⁸

45. Why hasn’t there been greater convergence on the basic issue, *what is competition*? One reason is the divergence over the premises of any theory of competition. Competition, like any theory, depends on its premises, the validity of which may not hold true across industries, countries, and time. The Chicago and post-Chicago Schools start with the premise that market participants are rational profit-maximizers with willpower. Others start with a different premise: many consumers are imperfectly rational, have limited willpower, are concerned about fairness, and are willing to punish unfair behavior even when not in their economic self-interest. Their theory of competition accordingly will differ. Issues of systemic risk, behavioral exploitation, herding, overconfidence bias, the importance of maintaining trial-and-error feedback loops, and competitive diversity increase in importance.

46. Accordingly, competition agencies can consider how their theory of competition changes once they relax their assumptions of market participants’ rationality and willpower. Firms, for example, can be relatively more or less rational than consumers in displaying the biases and heuristics identified in the behavioral economics literature. Accordingly, the conception of competition can vary under the following four scenarios:

	Rational Consumers	Bounded Rational Consumers
Rational Firms	I.	II.
Bounded Rational Firms	III.	IV.

47. One can extend the analysis to the rationality of intermediaries (e.g., suppliers, wholesalers, and retailers), and firms as buyers and consumers as sellers of services. For each Scenario, one can also

⁶⁵ Leegin Creative Leather Products, Inc. v. PSKS, Inc., 551 U.S. 877, 895-96 (2007).

⁶⁶ Eldred v. Ashcroft, 537 U.S. 186, 215-16 (2003) (need to balance encouraging innovation by rewarding inventors with the right to exclude others for a limited time from using the patented invention with the “avoidance of monopolies which stifle competition without any concomitant advance in the ‘Progress of Science and useful Arts’”).

⁶⁷ Org. for Econ. Co-operation & Dev., Policy Brief: What Is Competition on the Merits? 1 (2006), <http://www.oecd.org/dataoecd/10/27/37082099.pdf> (noting term “competition on the merits” has “never been satisfactorily defined,” which has “led to a discordant body of case law that uses an assortment of analytical methods,” which in turn has “produced unpredictable results and undermined the term’s legitimacy along with policies that are supposedly based on it”).

⁶⁸ *Id.* at 4; see also KENNETH M DAVIDSON, REALITY IGNORED: HOW MILTON FRIEDMAN AND CHICAGO ECONOMICS UNDERMINED AMERICAN INSTITUTIONS AND ENDANGERED THE GLOBAL ECONOMY 85-86 (2011) (intellectual confinement of antitrust to static price competition when dynamic competition provides the greater benefits).

examine the government's rationality relative to private firms and consumers. Several caveats apply.⁶⁹ But the exercise nonetheless can prompt additional questions to inform competition policy.

48. To illustrate how our theory of competition changes once we relax our assumptions of the market participants' rationality and willpower, consider Scenario II where firms are relatively more rational than consumers. Here rational firms can compete either to (i) help consumers find solutions for their bounded rationality and willpower or (ii) exploit consumers' bounded rationality or willpower. Firms can manipulate consumption decisions by:

- using framing effects and changing the reference point, such that the price change is viewed as a discount, rather than a surcharge;⁷⁰
- anchoring consumers to an artificially high suggested retail price, from which bounded rational consumers negotiate;⁷¹
- adding decoy options (such as restaurant's adding higher priced wine) to steer consumers to higher margin goods and services;⁷²
- using the sunk cost fallacy to remind consumers of the financial commitment they already made to induce them to continue paying installments on items, whose value is less than the remainder of payments;
- using the availability heuristic⁷³ to drive purchases, such as an airline travel insurer using an emotionally salient death (from "terrorist acts") rather than a death from "all possible causes";⁷⁴

⁶⁹ It is an oversimplification to say that millions of consumers and firms are either rational or bounded rational. Under any scenario, some market participants will be relatively more rational and have greater willpower than others. Bounded rationality and willpower can increase or decrease over time. People at any moment can act "more or less rationally depending on a host of situational, emotional, and other contingent influences." Donald C. Langevoort, *The Behavioral Economics of Mergers and Acquisitions*, 12 TENN. J. BUS. L. 65, 65 (2011). Nor is behavior consistent. People can behave differently depending on situational factors, such as when they are alone or in different groups. Third, firms as institutions can have biases and heuristics, although in different ways and degrees than consumers. Firms, at times, can minimize individual biases, but at other times (as with cults, mobs, and "groupthink") can displace independent thinking.

⁷⁰ OFT Report, *supra* note 40, at ¶ 2.5.

⁷¹ In one experiment, MBA students put down the last two digits of their social security number (e.g., 14). DAN ARIELY, PREDICTABLY IRRATIONAL: THE HIDDEN FORCES THAT SHAPE OUR DECISIONS 25-28 (2008). The students, then participants, monetized it (e.g., \$14), and then answered for each bid item "Yes or No" if they would pay that amount for the item. The students then stated the maximum amount they were willing to pay for each auctioned product. Students with the highest ending SSN (80-99) bid 216 to 346 percent higher than students with low-end SSNs (1-20), who bid the lowest; *see also* DANIEL KAHNEMAN, THINKING, FAST AND SLOW 119-28 (2011) (discussing anchoring effects generally).

⁷² Similarly, people "rarely choose things in absolute terms," but instead based on their relative advantage to other things. Ariely, *supra* note 71, at 2-6. By adding a third more expensive choice, for example, the marketer can steer consumers to a more expensive second choice. MIT students, in one experiment, were offered three choices for the *Economist* magazine: (i) Internet-only subscription for \$59 (sixteen students); (ii) print-only subscriptions for \$125 (no students); and (iii) print-and-Internet subscriptions for \$125 (eighty-four students). When the "decoy" second choice (print-only subscriptions) was removed and only the first and third options were presented, the students did not react similarly. Instead sixty-eight students opted for Internet-only subscriptions for \$59 (up from sixteen students) and only thirty-two students chose print-and-Internet subscriptions for \$125 (down from eighty-four students).

⁷³ Amos Tversky & Daniel Kahneman, *Judgment Under Uncertainty: Heuristics and Biases*, SCIENCE, Sept. 27, 1974, at 1127 (noting situations where people assess the "frequency of a class or the probability of an event by the ease with which instances or occurrences can be brought to mind").

- using the focusing illusion in advertisements (i.e., consumers predicting greater personal happiness from consumption of the advertised good and not accounting one's adaptation to the new product);⁷⁵
- giving the impression that their goods and services are of better quality because they are higher priced⁷⁶ or based on one advertised dimension;⁷⁷ and
- seeking to avoid price competition through complex price terms⁷⁸ or branding.⁷⁹

49. Scenario II competition depends in part on firms' ability to identify and exploit (or help) consumers. Firms may be unable to identify consumers whose biases, heuristics, and willpower make them particularly vulnerable. But rational firms, even after identifying bounded rational consumers, cannot always exploit them. Many markets, unlike prediction markets, lack a defined end-point. A rational investor could "short" a company's stock to profit when the stock price declines. But rational traders do not know when the speculative bubble will burst. Rational traders, due to investor pressure, can be subject to short-term horizons, and follow the herd for short-term gains.⁸⁰ Rational traders may also make more money by creating products that encourage, rather than deter, speculation.⁸¹

50. Alternatively, consumers, recognizing their bounded rationality, can turn for some decisions to more rational advisors or consumer advocates (such as Which? and Consumers Union). Moreover the window for exploitation can be short-lived. Consumers can make better decisions when they gain experience, quickly receive feedback on their earlier errors, discover their biases and heuristics in their earlier decisions, and take steps to debias.⁸²

⁷⁴ See generally Eric J. Johnson et al., *Framing, Probability Distortions, and Insurance Decisions*, 7 J. RISK & UNCERTAINTY 35 (1993).

⁷⁵ KAHNEMAN, THINKING, *supra* note 71, at 402-07.

⁷⁶ Ariely, for example, conducted several experiments that revealed the power of higher prices. Ariely, *supra* note 71, at 181-86. In one experiment, nearly all the participants reported less pain after taking a placebo priced at \$2.50 per dose; when the placebo was discounted to \$0.10 per dose, only half of the participants experienced less pain. Similarly, MIT students who paid regular price for the "SoBe Adrenaline Rush" beverage reported less fatigue than the students who paid one-third of regular price for the same drink. SoBe Adrenaline Rush beverage was next promoted as energy for the students' mind, and students after drinking the placebo, had to solve as many word puzzles as possible within thirty minutes. Students who paid regular price for the drink got on average nine correct responses, versus students who paid a discounted price for the same drink got on average 6.5 questions right.

⁷⁷ OFT Report, *supra* note 40, at ¶ 3.130.

⁷⁸ *Id.* at ¶¶ 3.97, 3.101-02.

⁷⁹ Deven R. Desai & Spencer Weber Waller, *Brands, Competition and the Law*, 2010 BRIGHAM YOUNG U. L. REV. 1425 (2010); Amos Tversky & Daniel Kahneman, *Loss Aversion in Riskless Choice: A Reference-Dependent Model*, 106 Q.J. ECON. 1039, 1054-58 (1991). A famous antitrust example is Clorox, whose bleach is chemically indistinguishable from rival brands. *FTC v. Procter & Gamble Co.*, 386 U.S. 568 (1967). Nonetheless, Clorox invested millions of dollars in promoting its brand of bleach, and often charged a higher price for its bleach. One would think that a market, where one company sells a fungible chemically indistinguishable product at a price premium, would be attractive for potential entrants. But Procter & Gamble sought to purchase Clorox rather than enter the liquid bleach market independently.

⁸⁰ Andrei Shleifer & Robert W. Vishny, *The Limits of Arbitrage*, 52 J. FIN. 35 (2007).

⁸¹ ANDREI SHLEIFER, *INEFFICIENT MARKETS: AN INTRODUCTION TO BEHAVIORAL FINANCE* 172 (2000) (citing several examples, including future contracts on tulips during the Tulipmania of the 1630s).

⁸² John A. List, *Does Market Experience Eliminate Market Anomalies?*, 118 Q.J. ECON. 41, 41 (2003).

51. Scenario II competition raises several policy issues. The first is behavioral exploitation as a market failure. In competitive markets, one expects rational firms to inform bounded rational consumers of other firms' attempts to exploit them. Providing this information is another facet of competition—trust us, we will not exploit you.⁸³ But too frequently, rather than compete to build consumers' trust in their business, competitors engage in similar exploitation.⁸⁴ Rational firms can compete in finding cleverer ways to attract and exploit bounded rational consumers. To exploit consumers, rational firms can compete in ways to reduce price transparency and increase the complexity of their products or product terms.⁸⁵ Rational companies can exploit consumers' optimism bias.⁸⁶ One former CEO, for example, explained how his credit card company targeted low-income customers “by offering ‘free’ credit cards that carried heavy hidden fees.”⁸⁷ The former CEO explained how these ads targeted consumers' optimism: “When people make the buying decision, they don't look at the penalty fees because they never believe they'll be late. They never believe they'll be over limit, right?”⁸⁸ Consumers are overoptimistic on their ability and willpower to pay the credit card purchases timely. They underestimate the costs of their future borrowings. So the optimistic consumers choose credit cards with lower annual fees (but higher financing fees and penalties) over better suited products (e.g., credit cards with higher annual fees but lower interest rates and late payment penalties).⁸⁹

52. For other competitors, it may make sense to exploit consumer biases rather than incur the costs to debias.⁹⁰ Suppose a credit card issuer incurs the cost to educate consumers of their bounded willpower and overconfidence. Other competitors can free-ride on the company's educational efforts and quickly offer similar credit cards with lower annual fees. Alternatively other firms continue to exploit the overconfident consumers with bounded willpower, who subsidize in part the better terms for the sophisticated

⁸³ See *SCFC ILC, Inc. v. Visa USA, Inc.*, 36 F.3d 958, 965 (10th Cir. 1994) (“If the structure of the market is such that there is little potential for consumers to be harmed, we need not be especially concerned with how firms behave because the presence of effective competition will provide a powerful antidote to any effort to exploit consumers.” (quoting George A. Hay, *Market Power in Antitrust*, 60 ANTITRUST L.J. 807, 808 (1992))).

⁸⁴ See, e.g., *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451, 474 n. 21 (1992) (noting that “in an equipment market with relatively few sellers, competitors may find it more profitable to adopt Kodak's service and parts policy than to inform the consumers”); *FTC v. R.F. Keppel & Bro., Inc.*, 291 U.S. 304, 308, 313 (1934) (finding that while competitors “reluctantly yielded” to the challenged practice to avoid loss of trade to their competitors, a “trader may not, by pursuing a dishonest practice, force his competitors to choose between its adoption or the loss of their trade”); *Ford Motor Co. v. FTC*, 120 F.2d 175, 179 (6th Cir. 1941) (Ford following industry leader General Motors in advertising a deceptive six-percent financing plan); Matthew Bennett et al., *What Does Behavioral Economics Mean for Competition Policy?*, 6 COMPETITION POL'Y INT'L 111, 118 (2010); Eliana Garcés-Tolon, *The Impact of Behavioral Economics on Consumer and Competition Policies*, 6 COMPETITION POL'Y INT'L 145, 150 (2010).

⁸⁵ OFT Report, *supra* note 40, at ¶ 1.11.

⁸⁶ *Id.* at ¶¶ 3.31, 3.37, 3.43.

⁸⁷ *FRONTLINE: The Card Game*, (Nov. 24, 2009), available at <http://www.pbs.org/wgbh/pages/frontline/creditcards/view/> (interview with former Provident CEO Shailesh Mehta).

⁸⁸ *Id.*

⁸⁹ Oren Bar-Gill & Elizabeth Warren, *Making Credit Safer*, 157 U. PA. L. REV. 1, 46 (2008).

⁹⁰ For elegant economic models, see Paul Heidhues, Botond Köszegi, & Takeshi Murooka, *Deception and Consumer Protection in Competitive Markets*, in PROS AND CONS OF CONSUMER PROTECTION, *supra* note 62; Gabaix & Laibson, *supra* note 44, at 517-20.

consumers.⁹¹ Ultimately, debiasing reduces the credit card companies' profits, without offering any lasting competitive advantage to the first-mover. Consequently, the industry makes more money exploiting consumers' bounded rationality. Consumers, overconfident in their financial prowess, will not demand better-suited products. Firms have little financial incentive to help consumers make better choices.⁹² Market demand, accordingly, will skew toward products and services that exploit or reinforce consumers' bounded willpower and rationality.

53. A second policy issue under Scenario II is distinguishing between behavioral exploitation and firms' helping bounded rational consumers. Customers under Scenario II may reign supreme (e.g., choosing commitment devices to address their bounded willpower) or be exploited. So the government under Scenario II faces three difficulties. One difficulty is that the government cannot necessarily rely on consumers' choices to infer their utility. If heuristics and biases systematically affect consumer decision-making, then consumer choices do not necessarily reflect actual preferences. A second difficulty is that some sophisticated consumers, aware of their bounded willpower, will purchase commitment devices that can appear exploitive to the government. A third difficulty is distinguishing when behavioral exploitation benefits or harms society. At times, exploiting irrationality benefits society.⁹³

54. Finally, how does the agency respond to sustained behavioral exploitation? If many consumers choose poorly, one danger is creeping authoritarianism, whereby the government by default decides for consumers. In displacing individual autonomy, the government does not help consumers improve their willpower or rationality, which in turn reduces consumer sovereignty and liberty. But a laissez-faire approach, whereby the government renounces any intention to regulate, raises another anti-democratic outcome, namely corporate autocracy.

55. Since consumers under Scenario II can be worse off when the government acts or fails to act, what should the government do? Behavioral economics provides the government with additional remedies, some less paternalistic than others, to deter behavioral exploitation while preserving economic liberty and leaving room for innovation that benefits consumers. The behavioral economics remedies include:

- Altering existing, or create new, default rules.
- Requiring consumers to choose among the options.⁹⁴

⁹¹ OFT Report, *supra* note 40, ¶¶ 3.47-3.52, 4.19 (noting that whenever sophisticated consumers benefit from the exploitation of naïve consumers, firms will have no incentive to debias); Gabaix & Laibson, *supra* note 44, at 507-09, 517-20 (discussing and modeling the "curse of debiasing").

⁹² See, e.g., US Merger Guidelines, *supra* note 32, at § 7.2 (noting how the market is more vulnerable to coordinated conduct if a firm that first offers a lower price or improved product to customers will retain relatively few customers after its rivals respond).

⁹³ Rational firms, for example, can dampen investors' speculation (e.g., buying a company's stock on the hope that past price increases will continue with future price increases). Another form of behavioral exploitation are predictions markets, which typically involve a defined event (e.g., the winner of the US presidential elections) and end date when all bets are settled. Some may be overly optimistic about their predicted outcome. Rational investors can exploit this optimism, and the prediction market as a result can yield remarkably accurate predictions. Colin F. Camerer & Ernst Fehr, *When Does "Economic Man" Dominate Social Behavior?*, SCIENCE, Jan. 6, 2006, at 52.

⁹⁴ The European Commission, for example, challenged Microsoft for bundling or tying its web browser, Internet Explorer, to its dominant client personal computer operating system, Windows. Press Release, European Comm'n, Antitrust: Commission Welcomes Microsoft's Roll-Out of Web Browser Choice (Mar. 2, 2010), <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/10/216&format=HTML&aged=0&language=EN>. Before the settlement, consumers who used Windows had Microsoft's Internet Explorer as their default web browser. Although consumers could download other browsers, many did not, a function not

- Educating the consumers using framing under prospect theory and the availability heuristic.⁹⁵ At times, better disclosures entail providing less, but more important, information.
- Setting one option as the default but impose procedural constraints on opting out.
- Affording purchasers a cooling-off period.⁹⁶
- Imposing a behavioral exploitation tax on the rational firm.⁹⁷
- Take preventive measures to help consumers debias themselves and improve their willpower, including increasing (i) the supply of debiasing methods⁹⁸; (ii) the demand for debiasing (such as imposing procedural constraints on consumer participation in high risk areas of behavioral exploitation, such as subprime lending, unless the consumer participated in an approved online course that outlines the mortgages' risks); and (iii) the opportunities to debias, such as facilitating timely feedback mechanisms to make consumers become aware of their errors and the costs of their poor choices, and strategies to avoid errors (e.g., providing employees who have not enrolled into a retirement plan a monthly reminder of how much money they lost to date in matching funds by not contributing to the 401(k), and an easy method to opt-in).

attributable necessarily to the superiority of Microsoft's browser but status quo bias. As part of its settlement, Microsoft now provides consumers a Browser Choice Screen. Rather than having one Internet browser as the default, computer users choose the browser they want from the competing web browsers listed on the screen.

⁹⁵ OECD Toolkit, *supra* note 26, at 87; Colin Camerer et al., *Regulation for Conservatives: Behavioral Economics & the Case for 'Asymmetric Paternalism'*, 151 U. PA. L. REV. 1211, 1231 (2003) ("Since low probabilities are so difficult to represent cognitively, it may help to use graphical devices, metaphors (imagine choosing one ping-pong ball out of a large swimming pool filled with balls), or relative-odds comparisons (winning the lottery is about as likely as being struck by lightning in the next week).").

⁹⁶ See OECD Toolkit, *supra* note 26, at 89; Rule Concerning Cooling-Off Period for Sales Made at Homes or at Certain Other Locations, 16 C.F.R. Part 429 (2011); Camerer et al., *supra* note 95, at 1241-44 (collecting federal and state cooling-off statutes); see also Truth in Lending (Regulation Z), 12 C.F.R. § 226.15 (2011) (Regulation Z cooling-off period). Consumers in an emotional, impulsive state can make unwise decisions that they later regret. Ariely, *supra* note 71, at 89-126. From a behavioral economics perspective, the effectiveness of cooling off periods is mixed. On the one hand, consumers, upon reflection, can reconsider a purchase, especially one involving high-pressure sale tactics. On the other hand, the more time one has to complete a task, the behavioral economics literature suggests, the greater the likelihood one will procrastinate and not complete that task. See, e.g., Dan Ariely & Klaus Wertenbroch, *Procrastination, Deadlines, and Performance: Self-Control by Precommitment*, 13 PSYCHOL. SCIENCE 219, 219-24 (2002); Amos Tversky & Eldar Shafir, *Choice Under Conflict: The Dynamics of Deferred Decisions*, 3 PSYCHOL. SCIENCE 358 (1992). For example, a customer's likelihood of redeeming a rebate may be inversely proportional to the rebate period's length. Matthew A. Edwards, *The Law, Marketing and Behavioral Economics of Consumer Rebates*, 12 STAN. J.L. BUS. & FIN. 362, 391-95 (2007); see also Virginia Postrel, *The Gift-Card Economy*, THE ATLANTIC (May 2009), <http://www.theatlantic.com/magazine/archive/2009/05/the-gift-card-economy/7372/> (noting the longer the expiration period, the less likely one will redeem gift card).

⁹⁷ When the estimated social value of the firms' behavior is below its private value, the government can tax the firm the difference. The tax seeks to prevent firms from unjustly enriching themselves from their behavioral exploitation. For example, revenues from payday lending that come from APRs above a certain level would be taxed at higher rates. Credit card revenues earned from late fees would be taxed at higher rates than revenue from annual fees.

⁹⁸ Financial literacy efforts have had mixed results. One study of Harvard undergraduate students and MBA students from Wharton, for example, found a "low absolute level of financial sophistication" with subjects basing choices on normatively irrelevant mutual fund attributes. James J. Choi et al., *Why Does the Law of One Price Fail? An Experiment on Index Mutual Funds*, 23 REV. FINANC. STUD. 1405 (2010).

- Provide consumers, if the market has not, commitment devices.
- Increase the firms' search costs of identifying potential victims.⁹⁹

56. Consequently, one can have different conceptions of competition with different policy implications by altering one set of assumptions, namely, the relative rationality of firms and consumers. Thus, the agency likely will want to undertake more empirical work to understand better the competitive dynamics of particular markets and how legal and informal norms interact to influence behavior and competition generally.

3.2 *Reconsidering the Goals of Competition Law*

57. Besides reexamining the assumptions underlying their theory of competition, competition authorities can reconsider their antitrust goals. The ICN recently completed three surveys of its member competition authorities to identify their countries' antitrust objectives. Thirty of thirty-three countries in a 2007 ICN survey identified promoting consumer welfare as an objective for their monopolization statutes.¹⁰⁰ The European Commission noted how "over the past two decades, the Commission's antitrust and merger policy more effectively placed the emphasis on consumer welfare, notably through an increasingly refined economic analysis."¹⁰¹

58. But the convergence is limited. Despite the push for a single economic antitrust goal, there is no consensus in the U.S. or worldwide on any well-defined goal.¹⁰² Four oft-cited economic goals (ensuring an effective competitive process, promoting consumer welfare, maximizing efficiency, and ensuring economic freedom¹⁰³) have failed to unify antitrust analysis. No consensus exists on what the four goals mean or how they are achieved. For example, the objective of *an effective competitive process* is simply a belief in other objectives, which can conflict. The objective of *promoting consumer welfare*, the ICN surveys reflect, provides little guidance.¹⁰⁴ Most countries, the ICN found, did "not specifically define

⁹⁹ One FTC success was enabling consumers to easily opt-out of all unwanted telephone solicitations. *See, e.g.*, Telemarketing Rules, 15 U.S.C. § 6102 (2006); National Do-Not-Call Registry, 16 C.F.R. § 310.4(b)(1)(iii)(B) (2011). As of September 30, 2008, over 172.5 million telephone numbers were on the do-not-call list. *See also* Do-Not-Call Improvement Act of 2007, Pub. L. No. 110-187, 122 Stat. 633 (2008) (telephone numbers placed on the National Do-Not-Call-Registry can remain on it permanently). The government, through a similar common listing service, can enable consumers to opt-out of home or mail solicitations (including credit card offerings) or easily block home-shopping cable stations. The government can increase consumers' privacy rights to make it harder for firms to identify especially bounded rational consumers through their purchasing behavior.

¹⁰⁰ Int'l Competition Network, Report on the Objectives of Unilateral Conduct Laws, Assessment of Dominance/Substantial Market Power, and State-Created Monopolies 9 (2007), <http://www.internationalcompetitionnetwork.org/uploads/library/doc353.pdf> [hereinafter 2007 ICN Report].

¹⁰¹ European Commission, Report from the Commission, Report on Competition Policy 2010 5 (2011) [hereinafter EC Competition Report].

¹⁰² I discuss in greater detail the failed quest for a single economic antitrust goal in *Reconsidering Antitrust's Goals*, 53 BOSTON COLLEGE L. REV. 551 (2012), and the implications of behavioral economics on antitrust's goals in *The Behavioral Antitrust Gambit*, in INTERNATIONAL RESEARCH HANDBOOK ON COMPETITION LAW (Ariel Ezrachi ed., Edward Elgar Publishing forthcoming 2012).

¹⁰³ 2007 ICN Report, *supra* note 100, at Annex A.

¹⁰⁴ Int'l Competition Network, Competition Enforcement and Consumer Welfare—Setting the Agenda 3 (2011) [hereinafter 2011 ICN Survey] (noting "connection between consumer welfare and the practical

consumer welfare and appear[ed] to have different economic understandings of the term.”¹⁰⁵ No consensus exists on what *consumer welfare* means, who the consumers are, how to measure consumer welfare, or designing legal standards to further this goal. Consequently, as the ICN found, the “objectives of competition laws vary widely from one jurisdiction to another. . . . [P]arallel objectives, possibly conflicting with that of economic efficiency or consumer welfare, are present in many competition laws.”¹⁰⁶

59. So how can behavioral economics inform policymakers on the goals of antitrust? As an initial premise, competition policy ultimately must improve the citizens’ well-being. If, as a result of a country’s competition policy, its citizens’ physical and mental health deteriorates, their isolation and distrust increase, and their freedom, self-determination and well-being decrease, then the policy is not worthwhile. So one’s theory of competition (as defined in part by one’s competition policy) must promote--or at least not impede--overall well-being.

60. Accordingly, the issue is how antitrust law (along with other laws and informal ethical, moral, and social norms) can promote overall well-being. On the one hand, part of antitrust law’s institutional soundness is its recognition that antitrust cannot cure all societal ills. Antitrust law is at its strongest when it focuses on preserving an effective competitive process and enforcing norms of free, fair, and open competition. On the other hand, antitrust policy is not divorced from subjective well-being. First, competition does not exist independently of legal and informal norms. Competition is defined in part by the prevailing legal and informal social, ethical, and moral norms.¹⁰⁷ The legal and informal norms provide the rules of the game necessary for that type of competition to function effectively and affect the market participants’ incentives.¹⁰⁸

61. Second some types of competition promote overall well-being. Other types of competition, such as the exploitation of child labor, hinder well-being. The phrase “competition on the merits” invariably involves normative considerations of unfair competition.¹⁰⁹

enforcement of competition law is not always straightforward” and “there may be a considerable gap between policy statements and practice”).

¹⁰⁵ *Id.* at 9.

¹⁰⁶ Advocacy Working Grp., ICN, *Advocacy and Competition Policy Report 32* (2002), http://www.internationalcompetitionnetwork.org/OutreachToolkit/media/assets/resources/advocacy_report.pdf.

¹⁰⁷ R.H. Coase, *The Institutional Structure of Production*, 82 AM. ECON. REV. 713, 717-18 (1992); *see also* F.A. HAYEK, *THE ROAD TO SERFDOM: TEXT AND DOCUMENTS--THE DEFINITIVE EDITION* 87 (Bruce Caldwell ed. (first published 1944, Chicago 2007)) (competition “depends, above all, on the existence of an appropriate legal system, a legal system designed both to preserve competition and to make sure it operates as beneficially as possible”).

¹⁰⁸ DOUGLASS C. NORTH, *UNDERSTANDING THE PROCESS OF ECONOMIC CHANGE* 52 (2005) (“How the game is actually played is a consequence of the formal structure [e.g., formal rules, including those set by the government], the informal institutional constraints [e.g., societal norms and conventions], and the enforcement characteristics.”).

¹⁰⁹ 15 U.S.C. § 45(a) (2006) (prohibiting “unfair or deceptive acts or practices in or affecting commerce”); Commission Regulation 864/2007, art. 6, 2007 O.J. (L 199/40) (EC) (discussing unfair competition and acts restricting free competition); Free Trade Agreement Between the European Union and its Member States and the Republic of Korea, 2011 O.J. (L127/6); *FTC v. Sperry & Hutchinson Co.*, 405 U.S. 233, 244 (1972) (“[U]nfair competitive practices were not limited to those likely to have anticompetitive consequences after the manner of the antitrust laws; nor were unfair practices in commerce confined to purely competitive behavior.”).

62. Third, the stronger one's belief in the importance of preserving and expanding fair competition to promote overall well-being, the greater antitrust's role in defining and deterring unfair competition. Thus, antitrust promotes fair competition that, in turn, promotes overall well-being.

63. Thus one challenge for policymakers going forward is assessing how competition policy can promote overall well-being. Promoting well-being entails promoting (1) material living conditions (income and wealth, housing, and jobs and earnings) and (2) quality of life (health status, work and life balance, education and skills, social connections, civic engagement and governance, environmental quality, personal security, sustainability, and subjective well-being).¹¹⁰

64. In developed countries like the United States, an antitrust goal to maximize material well-being (to the exclusion of quality of life goals) will not necessarily increase (and can reduce) overall well-being. After one's basic needs are met, the economic literature shows, increasing income and wealth does not significantly increase experienced well-being.¹¹¹ To maximize well-being, competition policy must balance material well-being and quality of life factors, such as freedom and self-determination, while not deterring the exercise of compassion and interpersonal relationships.

65. Such a competition policy is not difficult to imagine. Competition in dispersing political and economic power can increase economic opportunity and personal autonomy,¹¹² a key predictor of happiness. Citizens can choose to purchase from (and work for) firms that align with their personal, religious, and ethical values. When a firm engages in exploitative, unfair behavior, a competitive market provides alternatives.¹¹³ Positive sum competition provides richer social connections as people use their personal "vigor, imagination, devotion, and ingenuity" to help others.¹¹⁴ In promoting productive and

¹¹⁰ OECD, Better Life Initiative: Compendium of OECD Well-Being Indicators 6 (2011) [hereinafter OECD Well-Being], http://www.oecd.org/document/28/0,3746,en_2649_201185_47916764_1_1_1_1,00.html (click "In one single file (1.5 MB)" to access text); *see also* OECD, HOW'S LIFE?: MEASURING WELL-BEING 19-20 (2011) (noting also how sustainability of well-being over time should be included but the data issues involved); Jon Hall et al., A Framework to Measure the Progress of Societies 14 (OECD Statistics, Working Paper No. 2010/05, 2010), http://www.oecd-ilibrary.org/economics/a-framework-to-measure-the-progress-of-societies_5km4k7mnrkzw-en (click "PDF" to access text).

¹¹¹ Bruno S. Frey & Alois Stutzer, *What Can Economists Learn from Happiness Research?*, 40 J. ECON. LIT. 402, 410 (2002); *see also* KAHNEMAN, THINKING, *supra* note 71, at 397; Elizabeth W. Dunn et al., *Spending Money on Others Promotes Happiness*, 319 SCIENCE 1687, 1687 (2008); Daniel Kahneman & Angus Deaton, *High Income Improves Evaluation of Life But Not Emotional Well-Being*, 107 PNAS 16489, 16491 (2010) (finding from a U.S. survey of subjective well-being that, beyond approximately \$75,000, "higher income is neither the road to experienced happiness nor the road to the relief of unhappiness or stress, although higher income continues to improve individuals' life evaluations").

¹¹² 21 CONG. REC. 2457 (1890) (Senator Sherman describing how the Act promotes "industrial liberty," which "lies at the foundation of the equality of all rights and privileges").

¹¹³ *Id.* (Senator Sherman describing how competition checks the selfishness of firms and their disregard of consumers' interests); F.M. SCHERER & DAVID ROSS, INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE 19 (3d ed. 1990) ("When the no-barriers-to-entry condition of perfect competition is satisfied, individuals are free to choose whatever trade or profession they prefer, limited only by their own talent and skill and by their ability to raise the (presumably modest) amount of capital required."); *see also* Ross v. Bank of Am., N.A. (USA), 524 F.3d 217, 223 (2d Cir. 2008) (noting that antitrust injury includes "[c]oercive activity that prevents its victims from making free choices between market alternatives" (quoting Associated Gen. Contractors of Cal., Inc. v. Cal. State Council of Carpenters, 459 U.S. 519, 528 (1983))); Hayek, *supra* note 107, at 127.

¹¹⁴ United States v. Topco Associates, Inc., 405 U.S. 596, 610 (1972) (describing freedom to compete); OECD Well-Being, *supra* note 110, at 14 ("Not only [do the availability of jobs and earnings] increase people's

dynamic efficiencies, antitrust can promote sustainable consumption and production. Greater productive efficiency can increase leisure time, which employees can use to contribute their unique skills to community volunteer work. In enabling these activities, which are correlated generally with healthier and happier people, competition can promote well-being.

66. Going forward, competition authorities should look at the business literature that, after the financial crisis, is arguing for a “more sophisticated form of capitalism, one imbued with a social purpose.”¹¹⁵ In the past, the concepts of sustainability, fairness, and profitability generally were seen as conflicting. But under a shared value worldview, these concepts are reinforcing. Shared value “involves creating economic value . . . for society by addressing its needs and challenges” and “enhanc[ing] the competitiveness of a company while simultaneously advancing the economic and social conditions in the communities in which it operates.”¹¹⁶ Profits can be attained, not through exploitation (e.g., creating demand for harmful or useless products), but through collaboration and trust, and in better helping consumers solve their problems. Sustainability, rather than a cost, represents an opportunity for companies to improve productivity and societal welfare. So too, important political, social, economic, and moral values can reinforce, rather than undermine, any concept of fair competition, which in turn promotes well-being.

4. Level IV: Considering the Implications of Behavioral Economics on Convergence

67. As more competition authorities consider the implications of behavioral economics on competition policy under Levels I through III, one issue is how behavioral economics will affect the degree of convergence/divergence of competition law among the over 100 jurisdictions with competition laws today. Consequently, agencies must assess how behavioral economics will play out globally.

68. So as agencies and courts engage the analysis under Levels I-III, their economic theories will be enriched with the behavioral insights: they will likely acknowledge antitrust’s traditional political, social, and moral goals, and additional theories of competition, market failures, and remedies.

69. But behavioral economics, unlike neoclassical economic theory, will not provide a simple unifying principle. Dispositional and situational factors, which affect human behavior, can vary across regions, time, and experience. One concern is that behavioral economics increases the range of outcomes reached in an antitrust case, and thus injects more unpredictability into competition law. In relaxing the assumptions of market participants’ rationality, willpower, and self-interest, policymakers can justify anti-competitive outcomes to protect irrational consumers.

70. Accordingly, behavioral economics ultimately represents a gambit. Adopting behavioral economics entails some risk. Policymakers sacrifice the simplicity and organizing principles of rational choice theory, and risk greater divergence as enforcers predict market participants’ behavior under various situational and dispositional factors.

71. But the gambit is calculated to gain a greater advantage. In acknowledging the complexity of competition, our limited and incomplete understanding of market behavior and the competitive system, and the predictive shortcomings of price theory, behavioral economics can shift policymakers’ mindset. “The

command over resources, but they also provide people with a chance to fulfill their own ambitions, to develop skills and abilities, to feel useful in society and to build self-esteem.”).

¹¹⁵ See Michael E. Porter & Mark R. Kramer, *Creating Shared Value: How to Reinvent Capitalism—and Unleash a Wave of Innovation and Growth*, HARV. BUS. REV., Jan.–Feb. 2011, at 62, 77.

¹¹⁶ *Id.* at 64, 66.

recognition that simple and fully deterministic rules or equations can generate dynamical patterns which are effectively indistinguishable from random noise,” observed scientist Robert M. May, “has very deep implications for science”:

*It effectively marks the end of the Newtonian dream that knowing the rules will enable prediction; predicting local weather beyond about 10-20 days is not just a problem of computational power, but of the inherent unpredictability of chaotic dynamical systems.*¹¹⁷

72. Behavioral economics no doubt adds complexity to the theory of competition. Ultimately, with the rise of behavioral economics, policymakers will acknowledge the shortcomings in relying on an effects-based legal standard built on faulty assumptions to promote an ill-defined consumer welfare goal. They will recognize that antitrust enforcers and courts, taken all together, still would not know how to maximize dynamic, allocative, and productive efficiencies or economic welfare in the long run. As a German Bundeskartellamt official said, we cannot pretend to know what in fact cannot be known.¹¹⁸

73. So the ultimate issue under Level IV is whether (i) the agencies and courts should rely on an effects-based analysis, premised on a simple conception of static price competition, that seeks to promote a single well-defined economic goal; or (ii) rely on simpler rules and legal presumptions, given the inherent unpredictability of dynamic competition, and antitrust’s inherent economic, social, moral and political objectives?

74. One cannot have, consistent with the rule of law, a fact-specific effects-based legal standard (such as the rule of reason) and competing theories of competition, policy objectives, and economic theories. An effects-based legal standard is feasible only with a single well-defined objective and a well-defined theory of competition. While jurisdictions can converge on an effects-based analysis, that will be unsatisfactory, especially as agencies engage in the analysis under Levels I through III. As a former FTC chair said,

*Embedded in EU and US agency evaluations of the highly visible matters . . . are differing assumptions about the adroitness of rivals and purchasers to reposition themselves in the face of exclusionary conduct by a dominant rival, the appropriate tradeoff between short-term benefits of a challenged practice and long-term effects, and the robustness of future entry as a means for disciplining firms that presently enjoy dominance. Putting these and other critical assumptions front and center in the discussion, along with the bases for the assumptions, would advance the transatlantic relationship in the future.*¹¹⁹

75. Continued reliance on an effects-based legal analysis will not yield greater convergence until enforcers and courts agree on the underlying assumptions of market participant rationality, markets’ capacity to self-correct quickly, and the benefits and risks of governmental enforcement. This convergence is unlikely. Some jurisdictions, like the U.K.’s Office of Fair Trading, are already trending toward more accurate assumptions of market participant behavior.

¹¹⁷ ROBERT M. MAY, STABILITY AND COMPLEXITY IN MODEL ECOSYSTEMS xviii (first published 1973, Princeton 2001).

¹¹⁸ Christian Ewald, *Competition and Innovation: Dangerous “Myopia” of Economists in Antitrust?*, 4 COMPETITION POL’Y INT’L 253, 261 (Autumn 2008).

¹¹⁹ William E. Kovacic, Chairman, Fed. Trade Comm’n, *Competition Policy in the European Union and the United States: Convergence or Divergence?* 21 (Bates White Fifth Annual Antitrust Conference, Washington, D.C. June 2008), www.ftc.gov/speeches/kovacic/080602bateswhitepdf.

76. Thus the implication of behavioral antitrust in Level IV is greater self-actualization. It can pull antitrust from its current effects-based legal analysis toward simpler ex ante legal rules and presumptions designed to foster a competitive process.

77. The promise of behavioral economics under Level IV is as an impetus for clearer rules that market participants can internalize and follow. Meaningful convergence will come from increasing the transparency of antitrust's legal standards and bringing them closer to the rule-of-law ideals. By acknowledging the descriptive limitations of static price competition and the incompleteness of any single competition goal, competition officials can recognize that whatever the conception of competition or antitrust goals the first order of convergence is greater transparency and objectivity of the legal standards.

78. This is not to say that neoclassical thinking falls to the wayside. One potential concern is that the codification of rules and legal presumptions can take on a life of their own irrespective of their economic effects. The legal rules and presumptions, while transparent, can be counterproductive. Legal reform is often a complex arduous process that is not guaranteed to deliver significant improvements. Tension may well arise between a system's ability to accommodate new knowledge and to provide legal certainty. The more criteria the enforcer has the harder it is to evaluate whether the conduct is illegal. Consequently, the agencies should use the available empirical economic literature to fashion presumptions of legal or illegal conduct and specific exceptions for the common antitrust restraints, while leaving the effects-based rule of reason for the exceptional cases.

79. Indeed, with or without behavioral economics, we are moving in this direction.¹²⁰ Faced with resource constraints,¹²¹ the United States, like other jurisdictions, will find it harder to justify the protracted, costly rule of reason. Companies will demand legal standards that provide greater transparency, objectivity, accuracy, and predictability than the effects-based standard. They increasingly will demand clearer rules that their employees can easily internalize (and reduce compliance costs), that will bind them and their competitors, and that will enable them to reasonably anticipate what actions would be prosecuted so they can channel their behavior in welfare-enhancing directions.

¹²⁰ 2011 ICN Survey, *supra* note 104, at 88 (“A *clearly set and uniformly enforced* standard is, therefore, of utmost relevance for enforcement agencies, the business community and final consumers.”) (emphasis added); *linkLine*, 555 U.S. at 453 (recognizing the need for simpler antitrust standards “clear enough for lawyers to explain them to clients”) (quoting *Town of Concord, Mass v. Boston Edison Co.*, 915 F.2d 17, 22 (1st Cir. 1990)).

¹²¹ Ed O’Keefe, *Justice Department Lawyers Say They’ll Quit if Regional Offices Close*, WASHINGTON POST, Oct. 18, 2011, http://www.washingtonpost.com/politics/justice-department-lawyers-say-theyll-quit-if-regional-offices-close/2011/10/18/gIQA0JzNvL_storyhtml.