

6-2023

Consumer-Facing Competition Remedies: Lessons from Consumer Law for Competition Law

Lauren E. Willis

Loyola Law School, Los Angeles, lauren.willis@lls.edu

Follow this and additional works at: <https://dc.law.utah.edu/ulr>



Part of the [Antitrust and Trade Regulation Commons](#)

Recommended Citation

Lauren E. Willis, Consumer-Facing Competition Remedies: Lessons from Consumer Law for Competition Law, 2023 ULR 887 (2023). DOI: <https://doi.org/10.26054/0d-ydv4-8ckh>

This Symposium is brought to you for free and open access by Utah Law Digital Commons. It has been accepted for inclusion in Utah Law Review by an authorized editor of Utah Law Digital Commons. For more information, please contact valeri.craigle@law.utah.edu.

CONSUMER-FACING COMPETITION REMEDIES:
LESSONS FROM CONSUMER LAW FOR COMPETITION LAW

Lauren E. Willis*

TABLE OF CONTENTS

INTRODUCTION.....	887
I. WHY CONSUMER-FACING REMEDIES FAIL	889
A. <i>Consumers Respond in Unexpected Ways</i>	890
1. <i>Information</i>	892
2. <i>Switching Costs</i>	893
3. <i>Choice Architecture</i>	894
B. <i>Firms Frame the Remedy</i>	895
1. <i>Information</i>	895
2. <i>Switching Costs</i>	898
3. <i>Choice Architecture</i>	900
C. <i>Personal Data, Machine Learning, and Generative AI Will Supercharge Firm Evasion</i>	903
D. <i>Front-End Fixes May Be Futile</i>	905
II. LESSONS AND IMPLICATIONS.....	906
A. <i>Reconsider Structural Remedies</i>	907
B. <i>Recommit to Data Privacy</i>	909
C. <i>Roll Out Performance-Based Competition Remedies</i>	909
D. <i>Move to Market-Wide Regulation</i>	915
CONCLUSION	915

INTRODUCTION

Particularly when it comes to competition law, authorities¹ are hesitant to employ structural remedies. Prohibiting a merger, forcing a divestiture, separating lines of business, and similar measures seem too close to acting as the hand of God in the marketplace. These necessarily blunt interventions raise fears about whether, as clumsy mortals, we will do more harm than good. Indeed, pursuing structural remedies entails a bit of faith; the counterfactual—what would have happened in the

* © 2023 Lauren E. Willis. Professor of Law, Associate Dean for Research, and William M. Rains Fellow, LMU Loyola Law School, Los Angeles. This Essay grew from a wonderful Symposium held in October 2022 by the Utah Law Review on “The New Roaring Twenties.” The author is indebted to the foresight and creativity of the organizers in choosing this theme and hosting such an exciting conference.

¹ For concision, this Essay uses “authorities” as shorthand for any entities that have the power to impose competition remedies on firms, whether that be enforcement agencies or competition authorities using negotiated consent decrees or enforceable undertakings, or judges or other adjudicatory bodies using court or administrative orders.

marketplace absent the intervention—is unknowable, dependent on far too many factors to predict with even a modicum of certainty.

For these and other reasons, competition law, particularly in the European Union, has turned to “consumer-facing” firm conduct remedies, a seemingly light-touch approach.² These remedies aim to empower and stimulate consumers to drive competition through shopping based on accurate beliefs regarding the availability, costs, risks, and benefits of alternatives in the marketplace, the kind of muscular shopping that drives a market to produce better value for money for consumers. Consumer-facing remedies either obligate firms to take steps intended to promote consumer shopping or prohibit firms from imposing barriers that are believed to inhibit consumer shopping.³ Examples include requiring an infringing firm to remind consumers to shop around, limiting the switching costs the firm can impose on its customers, or prohibiting the firm from deploying specified self-preferencing choice architecture.

In behavioral economic theory, consumer-facing remedies—in essence, prescribed shopping nudges and proscriptions on shopping sludge—make sense. In practice, remedies and regulations imposing these sorts of requirements in the consumer protection realm have repeatedly failed. This Essay explains why we can expect consumer-facing competition remedies to similarly disappoint and draws lessons for competition law from consumer protection law’s mistakes.

The first lesson from consumer law is this: Firms have at their disposal decisive power to frame the way in which consumers perceive (or don’t perceive) these remedies and thus react (or don’t react) as authorities intend. To be effective, a nudge prescription or sludge proscription would need to be supported by pervasive controls on firm framing of the remedy. Such controls would intrude upon firm operations substantially, eliminating the “light touch” advantage that has driven competition law’s turn away from structural remedies and toward consumer-facing remedies.

Second, firms’ ability to “personalize” and microtarget their interactions with consumers supercharges firms’ abilities to influence consumer behavior. Indeed, even as consumer-facing remedies have been inspired by behavioral economic theory, firms can leverage historical and real-time personal consumer data, experimentation, and machine learning to prey upon individual and situational susceptibility to behavioral biases to undermine these remedies. Depriving firms of

² Terminology used by competition authorities and academics in this field is inconsistent. “Conduct” remedies, which encompass firm conduct toward consumers (“consumer-facing”) and toward other firms, are also called “behavioral” remedies. Consumer-facing remedies are sometimes called “demand-side” remedies. In addition, some use “remedy” to refer to the resolution of claims against a particular firm (an order directed to or settlement entered by, a specific firm); others use “remedy” to refer to rules applied to all firms in a market. This Essay uses remedy in the narrower, firm-specific sense, and “regulation” to refer to market-wide rules.

³ Where anticompetitive conduct has entrenched a firm’s market power, consumer-facing remedies might also be designed with a goal to affirmatively roll back the effects of the infringing conduct, although it appears that authorities generally have not imposed such truly remedial consumer-facing measures.

the individual consumer data their systems use to design and target interactions with consumers could reduce the efficacy of these systems in circumventing consumer-facing remedies and in erecting “personalized” barriers to shopping.

Third, competition authorities should consider adapting a form of regulation recently adopted by diverse consumer financial protection authorities to meet the challenge of quickly-evolving markets. Referred to variously as “performance-based” or “outcomes-based” regulation, this approach places the responsibility on firms to achieve the results regulators seek, while giving firms the flexibility to do so in the manner they see fit. Adapted for the competition realm, this approach would entail authorities setting measurable outcomes indicative of a competitive marketplace and then sanctioning firms that fail to demonstrate that their customers are experiencing those outcomes. As a litigation remedy, for example, in place of a prohibition on specified switching costs, a firm that had engaged in anticompetitive conduct would face sanctions if it did not periodically demonstrate over the life of the remedy that the switching costs experienced by its customers were low and that the switching costs anticipated by its customers who did not switch were also low. Performance-based remedies align firm incentives with competition, yet without some of the potential downsides of structural remedies.

Yet even “perfectly” competitive behavior by a firm that has previously engaged in anticompetitive behavior cannot solve coordination problems that impede consumer shopping. A consumer-facing conduct remedy or performance-based remedy imposed upon one firm will often necessitate changes in the conduct of competing firms for the remedy to be effective. Standardized protocols that facilitate consumer shopping based on accurate assessments of costs, risks, and benefits of available alternatives would ideally be developed by industry. However, collective action problems and firm attempts to favor themselves in the standard-setting process may be insurmountable. *Ex ante* market-wide regulation is likely necessary to enable consumers to compare offerings and to safely, easily, and confidently select providers based on the merits of the underlying transaction.

This Essay begins with an explanation of some key reasons consumer-facing remedies fail. This Part also suggests the sorts of supporting rules, and enforcement authority resources and powers to craft and enforce those rules, that would be needed to make these remedies even somewhat viable. Next, the Essay explains how access to personal data supercharges firms’ capacity to evade the competition-enhancing objectives of consumer-facing competition remedies. A new model is then introduced to competition law: performance-based competition remedies. The Essay closes with an acknowledgment that the success of all consumer-facing remedies depends on some coordination of the conduct of all competing firms, coordination that can be accomplished only through market-wide regulation.

I. WHY CONSUMER-FACING REMEDIES FAIL

Consumer-facing remedies aim to replace a firm’s anticompetitive conduct with conduct that enables and stimulates shopping by the firm’s current and potential future customers. Information remedies, such as requiring a firm to remind its

customers or potential customers of their right to shop around, are consumer-facing remedies. So too are orders limiting the switching costs a firm can impose on its customers. Prohibitions on forms of self-preferencing choice architecture (such as default settings that channel consumers to particular products or services) have also been imposed as a competition remedy aimed at improving consumer shopping. In theory, these remedies should also aim to roll back the effects of a firm's anticompetitive conduct—perhaps by subsidizing consumer switching from an infringing firm or by putting choice architecture in place that repels consumers from the infringing firm's product or service—although in practice, authorities generally have not taken such steps.

Consumer-facing competition remedies are likely to fail for the same reasons many consumer protection remedies and regulations fall short: consumers respond to remedies in ways authorities do not expect and firms undermine the remedies in the implementation process. Although many proposals for improving consumer-facing remedies have been made, none are likely to change these dynamics. Even consumer-facing remedies that aim to affirmatively roll back the effects of a firm's anticompetitive conduct will have the same weaknesses, so long as the infringing firm can leverage consumer limitations to frustrate the remedies.

This Part discusses why consumer-facing remedies fail, how firms can wield personal consumer data to circumvent these remedies even more effectively, and why recent proposals to improve these remedies will disappoint.

A. Consumers Respond in Unexpected Ways

Consumer responses to information content and display, switching costs, sales processes, and related choice architecture are often surprising. For example, laws requiring the posting of calorie counts on menus were meant to address the obesity epidemic, but the effect on calorie consumption has been minimal at best.⁴ Similarly, Congress required credit card issuers to add a personalized disclosure to billing statements informing their accountholders of how much they would save by paying a specified sum (the amount that would pay off the accountholder's balance in thirty-six months) rather than making minimum payments, expecting consumers to thereby save on interest expenses.⁵ However, although some consumers did increase their usual payments from the minimum to the thirty-six-month payoff figure, others decreased their usual behavior of paying off their monthly balances in full to instead

⁴ See, e.g., Michael W. Long, Deirdre K. Tobias, Angie L. Craddock, Holly Batchelder & Steven L. Gortmaker, *Systematic Review and Meta-Analysis of the Impact of Restaurant Menu Calorie Labeling*, 105 AM. J. PUB. HEALTH e11, e21 (2015) (describing a meta-analysis of six controlled experiments in restaurant settings that found a statistically insignificant 8 calorie reduction in customer consumption attributable to adding calorie counts to menus).

⁵ 15 U.S.C. § 1637(b)(11)(B).

pay the thirty-six-month figure, thereby incurring higher interest costs; on net, consumers paid no less in interest after the change in the law.⁶

Even marketing professionals cannot predict how consumers will react.⁷ This is why many firms now make it a habit to test their own marketing, websites, pricing, sales and cancellation processes, and more.⁸ Because consumer reactions are affected by real-world context,⁹ this testing increasingly takes place in the field rather than in the lab, and in real time.¹⁰ Further, because consumer reactions evolve over time, firm field testing happens continuously, not merely at the launch of new marketing, products, pricing, processes, etc.¹¹ This testing is particularly easy to do in digital environments, where consumer behavior can be unobtrusively, automatically, and inexpensively tracked in real time.

⁶ Sumit Agarwal, Souphala Chomsisengphet, Neale Mahoney & Johannes Stroebel, *Regulating Consumer Financial Products: Evidence from Credit Cards*, 130 Q.J. ECON. 111 (2015).

⁷ See, e.g., Elisa Gabbert, *24 of the Most Surprising A/B Tests of All Time*, WORDSTREAM (Nov. 19, 2022), <https://www.wordstream.com/blog/ws/2012/09/25/a-b-testing> [<https://perma.cc/G7TC-59ZW>] (surveying twenty-four marketing experts on unexpected results they have obtained from user experience research).

⁸ See, e.g., Ron Kohavi & Stefan Thomke, *The Surprising Power of Online Experiments*, HARV. BUS. REV. (Sept.–Oct. 2017), <https://hbr.org/2017/09/the-surprising-power-of-online-experiments> [<https://perma.cc/G5US-XR68>] (discussing case studies of how the most successful businesses run thousands of tests to optimize every aspect of their business). Third party firms can perform much of this testing. See, e.g., OPTIMIZELY, <https://www.optimizely.com/products/experiment/> [<https://perma.cc/QZ99-QMSR>] (last visited Mar. 29, 2023); *Welcome to Google Optimize*, GOOGLE OPTIMIZE, <https://optimize.google.com/optimize/home/#/accounts> [<https://perma.cc/6JMG-9RR9>] (last visited Mar. 29, 2023).

⁹ See, e.g., A. Ross Otto, Sean Devine, Eric Schulz, Aaron M. Bornstein & Kenway Louie, *Context-dependent Choice and Evaluation in Real-world Consumer Behavior*, 12 NATURE SCI. REPS. 17744 (2022) (reviewing past evidence of context-dependence in decision-making and presenting a large field experiment that confirms those results).

¹⁰ See, e.g., *In re Telebrands Corp.*, 140 F.T.C 278, 282–83 (2005) (noting that the respondent business’s “‘test’ ads were not simply shown to consumers who participated in . . . consumer perception research, but were aired in selected markets for limited periods of time and generated actual sales”).

¹¹ See, e.g., Caroline Tien-Spalding, *Five Trends Redefining the Role of Chief Marketing Officer in 2019*, FORBES (Mar. 7, 2019, 8:00 AM), <https://www.forbes.com/sites/forbescommunicationscouncil/2019/03/07/five-trends-redefining-the-role-of-chief-marketing-officer-in-2019/?sh=441d2b741b3a> [<https://perma.cc/YLV8-MMN3>] (“Long gone are the days of marketers conducting focus groups and then launching worldwide campaigns with billboards or newspaper ads based on that information, and then hoping for the best. . . . [Marketers] now run iterative sprints, adapting products in real time based on market conditions and feedback.”); Wes Nichols, *Advertising Analytics 2.0*, HARV. BUS. REV. (Mar. 2013), <https://hbr.org/2013/03/advertising-analytics-20> [<https://perma.cc/VGX6-KEQ8>] (“Gone are the days of setting a marketing plan and letting it run its course—the so-called run-and-done approach.”).

The unpredictability of consumer responses poses challenges to authorities in fashioning all types of consumer-facing remedies. Rather than designing a consumer-facing remedy and assuming it will work as desired, competition authorities may need to engage in continuous field testing and update the imposed remedy over time.

1. Information

With respect to information as a consumer-facing competition remedy, authorities cannot assume that providing consumers with accurate information will stimulate shopping. How a transaction is framed can convey an inaccurate message to consumers that could interfere with competition, such as the message that the consumer must obtain products and services as a bundle from a single firm. For example, some consumers do not know that they can shop around for title insurance when obtaining a mortgage because this and other closing costs appear tied to the mortgage.¹² Similarly, when a browser or search engine is pre-installed, particularly on a mobile device, consumers may not know whether or how they can change it.¹³ In the abstract, informing consumers of their right to shop around seems likely to stimulate competition.

To the consternation of competition authorities, however, even when consumers know they *can* shop around, many do not. One reason for this is that many consumers are unaware of price, feature, and quality dispersion in the marketplace and, therefore, underestimate the benefits of shopping around.¹⁴ An information remedy that does not convey to consumers their likely returns on time and effort spent shopping will be insufficient to stimulate consumer shopping.

¹² See, e.g., Lew Sichelman, *Shopping Around for Title Insurance Can Cut Closing Costs*, LA TIMES (Aug. 8, 2010, 12:00 AM), <https://www.latimes.com/archives/la-xpm-2010-aug-08-la-fi-lew-20100808-story.html> [<https://perma.cc/X2XU-3JYE>] (“[M]ost borrowers don’t realize that they can shop for title insurance . . .”).

¹³ See, e.g., AUSTRALIAN CONSUMER & COMPETITION COMMISSION, DIGITAL PLATFORM SERVICES INQUIRY INTERIM REPORT NO. 3 – SEARCH DEFAULTS AND CHOICE SCREENS 46–47 (2021), https://www.accc.gov.au/system/files/DPB%20-%20DPSI%20-%20September%202021%20-%20Full%20Report%20-%2030%20September%202021%20%283%29_1.pdf [<https://perma.cc/83ST-2YYW>] (reporting results of survey in which 35% of consumers admitted that they did not know or were unsure whether they knew how to switch browsers on mobile devices and a similar proportion admitted they did not know how to switch search engines within a mobile device browser).

¹⁴ See, e.g., Michael D. Grubb, *Failing to Choose the Best Price: Theory, Evidence, and Policy*, 47 REV. INDUS. ORG. 303, 304 (2015) (“Consumers sometimes appear to search too little, exhibit confusion in their choices, and/or show excessive inertia through too little switching away from past choices or default options. . . . This is particularly true when . . . customers have limited experience in the relevant market.”); John Y. Campbell, *Restoring Rational Choice: The Challenge of Consumer Financial Regulation*, 106 AM. ECON. REV. 1, 14 (2016) (noting that many consumers do minimal shopping in retail financial markets despite substantial price dispersion).

2. *Switching Costs*

A reduction in switching costs likewise may not have the effect authorities desire, due to unexpected consumer reactions. For example, data portability requirements and the provision of a free switching service in the retail banking sector in the United Kingdom had limited impact, even though regulators thought they had made switching nearly cost-free, and switching would have been welfare-enhancing for many consumers.¹⁵

Why? First, consumers perceived risks in switching that banking and competition authorities did not. Surveys indicate that switching was inhibited by consumer fears of erroneous re-routing of recurring deposits and payments and by consumer fears of data insecurity and privacy breaches.¹⁶ Ensuring that customers of a firm that has engaged in anticompetitive conduct can freely switch providers might require the infringing firm to provide consumers with guarantees of compensation for errors caused by switching along with market-wide regulation that would increase data security and data privacy, accompanied by sufficient publicity to reassure consumers.

Second, consumers were impeded by transaction costs that the U.K. regulators did not identify as significant. Specifically, consumers failed to switch in part because they perceived having to go into a bank branch to open a new account or having to learn how to use a new online banking website to be a significant “hassle.”¹⁷ For eliminating switching costs to be an effective remedy for anticompetitive behavior, infringing firms might need to perform the switching for customers.¹⁸ Further, regulators might need to standardize some services market-wide to some extent, to reduce the learning costs consumers believe they will incur if they switch providers.

¹⁵ See, e.g., COMPETITION & MKTS. AUTH., *RETAIL BANKING MARKET INVESTIGATION FINAL REPORT 214* (2016), <https://assets.publishing.service.gov.uk/media/57ac9667e5274a0f6c00007a/retail-banking-market-investigation-full-final-report.pdf> [<https://perma.cc/ZZS6-6E88>] (noting the “substantial potential gains to be made by a large number of customers switching [bank accounts]” after the imposition of banking data portability and a free switching service); Emanuele Giovannetti & Paolo Siciliani, *The Impact of Data Portability on Platform Competition*, CPI ANTITRUST CHRON. (Nov. 2020), https://arro.anglia.ac.uk/id/eprint/706105/6/Giovannetti_Siciliani_2020.pdf [<https://perma.cc/GX68-8QJC>] (“In the UK, the process of switching personal current [bank accounts] has been entirely automated since 2014 under the industry-run Current Account Switching Service, which allows consumers to transfer seamlessly all of their recurring transaction arrangements, both outgoing (e.g. utility bills and mortgage repayments) and incoming (e.g. monthly salary), within seven days. Nevertheless, the level of switching activity has remained anemic at below 5 percent.”).

¹⁶ See COMPETITION & MKTS. AUTH., *supra* note 15, at 188.

¹⁷ See FIN. CONDUCT AUTH., *MAKING CURRENT ACCOUNT SWITCHING EASIER: THE EFFECTIVENESS OF THE CURRENT ACCOUNT SWITCH SERVICE (CASS) AND EVIDENCE ON ACCOUNT NUMBER PORTABILITY 34* (Mar. 2015), <https://www.fca.org.uk/publication/research/making-current-account-switching-easier.pdf> [<https://perma.cc/4DUN-2MXZ>].

¹⁸ Alternatively, the new provider might need to orchestrate the switch.

A third impediment to switching in the U.K. banking context appears to have been the difficulty consumers had in ascertaining the price and quality of retail banking services from various providers.¹⁹ Unable to easily compare the costs and benefits of their current accounts to the costs and benefits they would experience at a competitor bank, they did not (and perhaps could not) determine whether switching would be advantageous. The lesson: Eliminating barriers to switching between providers depends on eliminating barriers to shopping among providers.

3. *Choice Architecture*

Choice architecture mandates can also have unpredictable effects on consumers. For example, as a consumer protection measure, regulators have changed the choice architecture of some types of transactions to give consumers the right to rescind the transaction for three days after consummating it. In 2005, as the sale of unsuitable, predatory mortgage loans was ballooning, one federal banking regulator testified to the effect that virtually no consumer ever exercises their three-day right of rescission in the mortgage loan context, no matter how unsuitable the loan.²⁰

Similarly, changing choice architecture to require consumers to choose their own search engine or browser may not prompt consumers to search for the option that best meets their personal needs and preferences. In theory, forcing consumers to actively engage in choice rather than allowing them to passively accept a default should make the erstwhile default less likely to be selected. However, consider the E.U. case alleging that Microsoft violated competition law by requiring manufacturers to set Microsoft's Internet Explorer browser as the default as a precondition for installing the Windows operating system on devices. The browser choice screen that Microsoft launched in Europe to resolve these allegations does not appear to have had more than a negligible effect on Internet Explorer's market share in the affected jurisdictions.²¹ It may be that consumers select the most familiar

¹⁹ See COMPETITION & MKTS. AUTH, *supra* note 15, at 192–93.

²⁰ See *Financial Services Regulatory Relief: The Regulators' View: Hearing Before the Subcomm. on Fin. Insts. and Consumer Credit of the H. Comm. on Fin. Servs.*, 109th Cong. 26 (2005) (“With regard to [the] right of rescission, let me say that at virtually every outreach meeting, we have had bankers stand up and say, ‘I have been in the banking business for 35 years, I have been lending money that entire time. No one has ever asked to exercise their right of rescission.’” (testimony of John M. Reich, Vice Chairman, Federal Deposit Insurance Corp)). Cf. Jeff Sovern, *Written Notice of Cooling-Off Periods: A Forty-Year Natural Experiment in Illusory Consumer Protection and the Relative Effectiveness of Oral and Written Disclosures*, 75 PITT. L. REV. 333, 355 (2014) (surveying sellers subject to three-day-right of rescission for home improvement contracts or gym memberships and finding that the overwhelming majority of sellers had never or very rarely encountered consumers who rescinded).

²¹ See Omar Vasquez Duque, *Active Choice vs. Inertia? An Exploratory Assessment of the European Microsoft Case's Choice Screen*, J. COMPETITION L. & ECON., 2022, at 1, 9

option, which might well be the browser from the firm that previously engaged in anticompetitive conduct to amass such consumer familiarity.²²

B. Firms Frame the Remedy

Authorities have limited ability to predict consumer responses to consumer-facing remedies even when those remedies are implemented in an unbiased manner. However, firms have a profit motive to implement these remedies in a manner that favors the firm. A remedy might be imposed that mandates a particular information disclosure, prohibits a switching cost, or imposes an architecture at a consumer choice point. But firms can shape the larger context in which consumers are faced with these remedies. Consumers' limited perceptual, cognitive, and self-control resources mean that context can exert tremendous force on their actions.²³ Firm control of the context surrounding consumer-facing remedies allows firms to manipulate consumer behavior in ways that sabotage those remedies.

1. Information

Information remedies are likely to be particularly easy for firms to nullify. Mandated disclosures repeatedly have been found ineffective and even counterproductive.²⁴ For example, corrective advertising as a remedy for deceptive practices generally has not corrected the false consumer beliefs previously implanted

(using a difference-in-difference approach, finding that the effect of the browser choice screen on Internet Explorer's market share was between 1.3% and 2%). Note that for choice screens as a consumer-facing remedy for previous anticompetitive activity, the implementation details and position of existing competitors matter enormously. See Francesco Decarolis, Muxin Li & Filippo Paternollo, *Competition and Defaults in Online Search*, CENTRE FOR ECON. POL'Y RSCH. (Mar. 2023), <https://cepr.org/publications/dp17779> [<https://perma.cc/LX4K-BRSB>] (performing a comparative analysis of the consumer-facing choice screen remedies imposed by the E.U. and by Russia on Google for anticompetitive behavior in search, and finding that both the details of the remedy and the market structure in the respective locations affected the results, with the choice screen having virtually no effect in the E.U. but having some measurable effect in Russia).

²² Cf. Robin Chark, Songfa Zhon, Shui Ying Tsang, Chiea Chuen Khor, Richard P. Ebstein, Hong Xue, & Soo Hong Chew, *A Gene–Brain–Behavior Basis for Familiarity Bias in Source Preference*, 92 THEORY & DECISION 531, 546 (2022) (finding a genetic basis for an unconscious bias toward the familiar).

²³ See, e.g., Raphael Thomadsen, Robert P. Rooderkerk, On Amir, Neeraj Arora, Bryan Bollinger, Karsten Hansen, Leslie John, Wendy Liu, Aner Sela, Vishal Singh, K. Sudhir & Wendy Wood, *How Context Affects Choice*, 5 CUSTOMER NEED & SOL. 3, 5–6 (2018).

²⁴ See, e.g., Lauren E. Willis, *Performance-Based Consumer Law*, 82 U. CHI. L. REV. 1309, 1317–21 (2015) (explaining five methods firms deploy to nullify the desired effect of consumer-facing disclosures); see generally OMRI BEN-SHAHAR & CARL E. SCHNEIDER, *MORE THAN YOU WANTED TO KNOW: THE FAILURE OF MANDATED DISCLOSURE* (2014).

by firm advertising.²⁵ Corrective advertising can even backfire, reinforcing the original false message rather than correcting it.²⁶

If a firm must instruct consumers to shop around, that disclosure seems likely to end up in a stack of unread documents,²⁷ a labyrinth of unread prose,²⁸ or, if online, below or beyond the examined portions of a screen.²⁹ Many consumers do not even recall receiving mandated disclosures.³⁰ A firm can also exploit timing to thwart information remedies; once a consumer has progressed from a decision-making mindset to an implementation mindset, a reminder to shop is too late, particularly after a consumer has devoted substantial time to the transaction. Car lot salespeople have been known to draw out the length of interactions to prevent consumers from shopping elsewhere.³¹

Subverting all types of disclosures may be even easier in the online than the offline world due in part to the precise control firms have over context. In one experiment, a reminder about privacy concerns delivered just before subjects made

²⁵ See, e.g., Gita Venkataramani Johar & Carolyn J. Simmons, *The Use of Concurrent Disclosures to Correct Invalid Inferences*, 26 J. CONSUMER RES. 307, 308 (2000); Fred W. Morgan & Jeffrey J. Stoltman, *Television Advertising Disclosures: An Empirical Assessment*, 16 J. BUS. & PSYCH. 515, 532–33 (2002).

²⁶ See, e.g., Ian Skurnik Carolyn Yoon, Denise C. Park & Norbert Schwarz, *How Warnings About False Claims Become Recommendations*, 31 J. CONSUMER RES. 713, 717–19 (2005).

²⁷ See, e.g., Lauren E. Willis, *Decisionmaking and the Limits of Disclosure: The Problem of Predatory Lending: Price*, 65 MD. L. REV. 707, 790–91 (2006) (quoting deposition testimony describing how mortgage loan officers hid federally mandated credit price disclosures among a raft of other documents at closing).

²⁸ See, e.g., Yannis Bakos, Florencia Marotta-Wurgler & David R. Trossen, *Does Anyone Read the Fine Print? Consumer Attention to Standard-Form Contracts*, 43 J. LEGAL STUD. 1, 1–3 (2014) (finding that only a miniscule proportion of consumers read fine print terms).

²⁹ See, e.g., CONSUMER ACTION L. CTR., WHAT WARNING? OBSERVATIONS ABOUT MANDATED WARNINGS ON PAYDAY LENDER WEBSITES 6 (2013), <https://consumeraction.org.au/wp-content/uploads/2013/10/What-warning-August-2013.pdf> [<https://perma.cc/932P-SMNP>] (finding online warnings mandated by Australian law frequently were either a color that blended into the background or not visible unless the consumer scrolled down); These Fessenden, *Scrolling and Attention*, NIELSEN NORMAN GRP. (Apr. 15, 2018), <https://www.nngroup.com/articles/scrolling-and-attention/> [<https://perma.cc/5VTU-BU7C>] (finding that consumers online on laptops or desktops spend only 8% of their eye gaze time on the bottom 20% of the screen).

³⁰ See, e.g., Fred H. Cate, *The Failure of Fair Information Practice Principles, in CONSUMER PROTECTION IN THE AGE OF THE ‘INFORMATION ECONOMY’* 341, 360 (Jane K. Winn ed., 2006) (reporting survey results finding that 35% of consumers admitted they could not recall receiving the financial privacy notice disclosures mandated by the Gramm-Leach-Bliley Act).

³¹ See, e.g., Dana Dratch, *Tactics Car Salespeople Hope You Don’t Know*, BANKRATE (Jan. 17, 2023), <https://www.bankrate.com/loans/auto-loans/7-secret-tactics-that-car-salesmen-hope-you-dont-know/> [<https://perma.cc/6SLN-DHY3>] (“Some car salespeople use time as a tool . . . They’ll draw out the process until you’re exhausted.”).

a choice that would determine whether sensitive personal information would be revealed led the subjects to behave in more privacy-protective ways.³² But adding just a fifteen-second delay between the reminder and the loading of the next webpage where the subjects made that choice eliminated the privacy-protective effect of the reminder.³³

The ways in which consumers interact with digital screens also create opportunities for firms to hide information remedies in plain sight. Consumers leave substantial regions of these digital screens unexamined. Internet users are “highly focused on the[ir] current task and ruthlessly ignore[] content unrelated to [their] goal.”³⁴ They routinely ignore material on the screen that is located where advertisements conventionally appear or that stands out visually from surrounding content in an attempt to avoid spending time looking at advertising.³⁵ To an outside observer, information that stands out visually on a digital screen may appear to be “clear and conspicuous,” but consumers immersed in the flow of online activity may be unlikely to notice it.

The upshot is that to be even somewhat effective, a remedy ordering a firm to inform customers and prospective customers of their right to shop around must be accompanied by an army of additional provisions managing where, when, and how the information is conveyed.

But these “framing” rules³⁶ will soon become outdated. Even information delivery designs that might be effective at first tend to lose their potency over time. Particularly online, consumers become habituated to stimuli quickly. Take, for example, pop-up boxes that appear in the middle of screens and prevent further activity until cleared; when first introduced, these grabbed consumer attention. Today, many consumers scan the corners of the box to find the “x” that will close it and reflexively click without reading the box’s contents.³⁷ Habituation happens so quickly that even a single firm might train its customers to ignore text in a particular

³² Idris Adjerid, Alessandro Acquisti, Laura Brandimarte & George Loewenstein, *Sleights of Privacy: Framing, Disclosures, and the Limits of Transparency*, in SOUPS 2013: PROCEEDINGS OF THE NINTH SYMPOSIUM ON USABLE PRIVACY AND SECURITY 9 (2013).

³³ *Id.*

³⁴ Kara Pernice, *Scanning Patterns on the Web Are Optimized for the Current Task*, NIELSEN NORMAN GRP. (Mar. 19, 2017), <https://www.nngroup.com/articles/eyetracking-tasks-efficient-scanning/> [<https://perma.cc/5DM2-59VS>].

³⁵ Kara Pernice, *Banner Blindness Revisited: Users Dodge Ads on Mobile and Desktop*, NIELSEN NORMAN GRP. (Apr. 22, 2018), <https://www.nngroup.com/articles/banner-blindness-old-and-new-findings/> [<https://perma.cc/DV6K-AAQU>].

³⁶ For a more extensive discussion of framing rules, see Lauren E. Willis, *When Nudges Fail: Slippery Defaults*, 80 U. CHI. L. REV. 1155, 1213 (2013) [hereinafter Willis, *When Nudges Fail*].

³⁷ See, e.g., Steven Hooper, *Mobile Dark Patterns*, UXMATTERS.COM (Nov. 4, 2019), <https://www.uxmatters.com/mt/archives/2019/11/mobile-dark-patterns.php> [<https://perma.cc/44CW-CAWV>].

font or color by first presenting other information consumers find irrelevant in that same format.³⁸

To stop a firm that has formally complied with a consumer-facing information remedy from evading the remedy's competition goal, an enforcement authority would need substantial vigilance, capacity, expertise, agility, access, and a legal mandate to control any firm conduct that impedes the remedy. The authority would need to survey the firm's customers at frequent intervals over the life of the remedy to discover whether customers read the firm's disclosure, understood it, and reacted or did not react as the authority intended. Where relevant, the authority would need to determine why the disclosure was unread, misunderstood, or did not provoke the intended shopping-strengthening reaction. It would then need to craft and impose on the firm additional conduct obligations calculated to achieve the remedy's competition goal. Competition authorities likely would need license to experiment on the firm's customers in real time to discover what message and method of delivery would have the desired effect.

Even so, ordering a firm to remind its customers of their right to shop around and to inform them of the potential benefits of doing so will do little to improve competition if those customers then face switching costs or cannot identify alternatives in the market that provide better value for the money. The effectiveness of information remedies placed on a single firm that engaged in anticompetitive conduct will depend both on reducing barriers to switching away from that single firm and on reducing barriers to shopping market wide.

2. *Switching Costs*

An order to eliminate tangible switching costs such as termination fees might seem more challenging for a firm to evade than information remedies. Yet intangible costs to customers attempting to close an account or cancel a service—the

³⁸ Cf. Jennifer DeRome, *Deceptive Patterns: The Sinister Side of UX*, USERTESTING (Oct. 1, 2015), <https://www.usertesting.com/blog/deceptive-patterns-the-sinister-side-of-ux/> [<https://perma.cc/N7UP-V2M7>] (explaining how a firm used a particular shade of green for a series of buttons a consumer needed to click to move an online game forward and then presented the consumer with a similar green button to “buy moves” in the game; even though the button was clearly labeled, some consumers appear to have clicked it unthinkingly, having been trained to do so to continue the game, and did not realize they were buying something in the process).

impenetrable maze of clicks,³⁹ the interminable wait times,⁴⁰ the gauntlet of sales pitches⁴¹—are a tremendous hurdle to switching. In fact, prominent empirical work has found that not only are switching costs a better predictor of consumers’ intention to switch than satisfaction with their current provider, but the financial costs of switching can be less important than non-financial costs.⁴² As a result, the remedy might also need to order the firm to minimize the effort, patience, and fortitude demanded of its customers for them to switch to a new provider.

Experience in the United Kingdom provides a cautionary tale. After the data portability and switching service regime failed to stimulate retail banking competition, the U.K. moved to an Open Banking system.⁴³ This system compels the nine largest banks to create and maintain APIs that facilitate consumer data sharing with competing providers, switching, multi-homing, and integration of services from other providers with their bank accounts.⁴⁴ One way the banks attempted to resist competition was to make the customer authorization process—through which consumers could authorize third-party providers to access their data—onerous: “Banks required customers to navigate as many as 12 screens of intimidating warnings and caveats,” and “used an out-of-date browser-based process that required that users log in repeatedly.”⁴⁵

As with information remedies, an enforcement authority would need penetrating insight into firm operations to control these sorts of intangible switching costs. This could entail access to the firm’s customers and frequent interviews and surveys to monitor those customers’ subjective experiences so as to identify violations of an order to minimize all switching costs. “Sludge audits” are perhaps

³⁹ See, e.g., FORBRUKERRÅDET, YOU CAN LOG OUT, BUT YOU CAN NEVER LEAVE: HOW AMAZON MANIPULATES CONSUMERS TO KEEP THEM SUBSCRIBED TO AMAZON PRIME (2021), <https://fil.forbrukerradet.no/wp-content/uploads/2021/01/2021-01-14-you-can-log-out-but-you-can-never-leave-final.pdf> [<https://perma.cc/8S3P-2GFG>]; AUSTRALIAN CONSUMER & COMPETITION COMMISSION, *supra* note 13, at 51–52 (finding that consumers need to take between 4 and 13 steps to change web browsers or search engines, depending on the device, operating system, and existing browser and search settings).

⁴⁰ See, e.g., Complaint at 22, FTC v. Age of Learning Inc., No. 2:20-cv-7996 (C.D. Cal. Sept. 1, 2020) (alleging that a firm’s internal data showed that in one month, the average wait time for customers who had called in to cancel their subscription exceeded 30 minutes, and 60% of calls were abandoned without reaching a customer service representative).

⁴¹ See, e.g., Laura Stampler, *Recording of Man’s Attempt to Cancel Comcast Will Drive You Insane*, TIME (July 15, 2014, 9:08 AM), <https://time.com/2985964/comcast-cancel-ryan-block/> [<https://perma.cc/5VP5-3MA7>].

⁴² See Thomas A. Burnham, Judy K. Frels & Vijay Mahajan, *Consumer Switching Costs: A Typology, Antecedents, and Consequences*, 31 J. ACAD. MKTG. SCI. 109, 119–20 (2003).

⁴³ Sam Bowman, *Why Data Interoperability Is Harder than It Looks: The Open Banking Experience*, CPI ANTITRUST CHRON., Apr. 2021, at 4, <https://laweconcenter.org/wp-content/uploads/2021/06/CPI-Bowman.pdf> [<https://perma.cc/J8L4-DAYF>].

⁴⁴ *Id.*

⁴⁵ *Id.*

more easily imagined than executed.⁴⁶ Even assuming a successful audit, authorities would also need the capacity, expertise, agility, and legal mandate to take quick action to stop detected violations.

But how many clicks or screens are too many, how many minutes on hold is too long, and how can a negotiation with customer service to reduce the price of a service be distinguished from haggling that excessively impedes switching? Micromanaging every aspect of the switching process with a web of subsidiary conduct rules—No more than two clicks? Three minutes on hold? Four requests or offers by a customer service agent or bot?—starts to intrude rather deeply into firm operations. In the context of Open Banking, a regulatory body in the U.K. has needed to continually monitor the activities of the participating banks, enforce the rules designed to facilitate consumer use of new providers, and make and re-make additional rules as the banks resist achieving the goals of the system.⁴⁷ In the context of a consumer-facing competition remedy, the competition authority might need the power, expertise, capacity and access to experiment with the firm's operations in real time to identify all tangible and intangible switching costs and determine how to thoroughly eliminate them.

3. *Choice Architecture*

Prohibitions on specified forms of self-preferencing choice architecture might fare little better in strengthening consumer shopping.⁴⁸ For example, one consumer-facing competition remedy might be to prohibit the firm from setting a self-preferencing default, such as a default browser. Yet, in addition to the possibility that illicitly garnered familiarity with the infringing firm might drive consumers to continue to choose the would-be default, there is also a well-established playbook for firms to thwart default positions that do not benefit them. Firms might impose costs on consumers who decline firm-preferred positions. Firms can switch defaults

⁴⁶ See Cass R. Sunstein, *Sludge Audits*, 6 BEHAV. PUB. POL'Y 654 (2022) (defining “Sludge Audits” as institutional reviews of excessive or unjustified frictions that deprive consumers of goods and services).

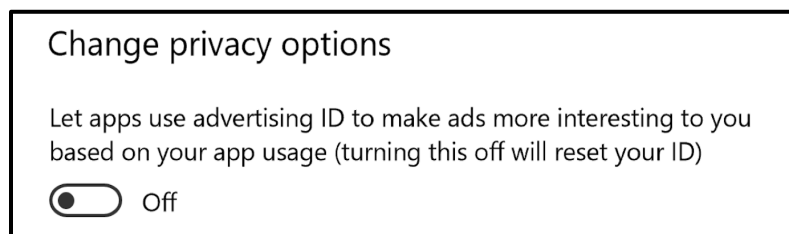
⁴⁷ For discussion, see Bowman, *supra* note 43, at 5.

⁴⁸ A general prohibition on self-preferencing might be more effective, but only if authorities have the vigilance, capacity, expertise, agility, access, and legal mandate to quickly identify and stop the conduct.

in the fine print.⁴⁹ They can overwhelm consumers with options.⁵⁰ They can confuse consumers about what position consumers are even in.⁵¹

Regulators and enforcement authorities can prohibit at least some of these maneuvers. For example, they can prohibit firms from imposing costs on consumers who decline the firm's preferred position. But firms always get the last move. Firms can trick consumers into believing there are costs. And they can impose subtle yet powerful time, effort, and annoyance costs on consumers to ensure consumers land in the positions that are most lucrative for the firm.

To see how this would work, one can look to two arenas in which firms have honed methods to ensure consumers reach the position optimal for firm revenue. Here is an example in the consumer privacy space:⁵²



In this example, it is unclear whether the current position is no sharing of the consumer's app usage or whether the user must toggle the switch to the right, where "off" is located, to stop sharing. In addition to making the consumer's present position opaque, resetting one's ID seems like it could be a costly experiment.

⁴⁹ One default very commonly switched in the fine print in the U.S. is the right to sue in a civil action; in the fine print of "contracts" or "terms of service," firms switch the default to obligate their customers to arbitrate any claims against the firm. *See, e.g.,* Imre Szalai, *The Prevalence of Consumer Arbitration Agreements by America's Top Companies*, 52 U.C. DAVIS L. REV. ONLINE 233, 234 & n.18 (2019) (reporting that more than 60% of U.S. e-commerce sales come with arbitration clauses); CONSUMER FIN. PROT. BUREAU, ARBITRATION STUDY: REPORT TO CONGRESS, PURSUANT TO DODD-FRANK WALL STREET REFORM AND CONSUMER PROTECTION ACT § 1028(A), at 26 (2015), https://files.consumerfinance.gov/f/201503_cfpb_arbitration-study-report-to-congress-2015.pdf [<https://perma.cc/T989-5HYD>] (finding that 99.9% of mobile phone subscribers in the U.S. are covered by an arbitration clause placed in their "contracts" with their providers).

⁵⁰ *See* AMBRE NICOLLE, CHRISTOS GENAKOS & TOBIAS KRETSCHMER, CENTRE FOR ECONOMIC PERFORMANCE, STRATEGIC CONFUSOPOLY: EVIDENCE FROM THE UK MOBILE MARKET 5–6 (2021), <http://eprints.lse.ac.uk/113835/1/dp1810.pdf> [<https://perma.cc/N847-WJ9J>].

⁵¹ *See, e.g.,* Willis, *When Nudges Fail*, *supra* note 36, at 1194; *cf.* Lauren E. Willis, *Why Not Privacy by Default?*, 29 BERKLEY TECH L.J. 61 (2014) (discussing evidence that consumers believe the presence of the hyperlink "Privacy Policy" means firms protect their privacy, when most privacy policies spell out the many ways in which firms can use and share consumers' data).

⁵² This example is from Microsoft's Windows 10 operating system, under Settings > Privacy & Security > General.

In the consumer finance arena, when regulators imposed a no-overdraft-charges default for common checking account transactions, banks employed both messaging and annoyance costs to drive their customers out of the default position.⁵³ They sent their accountholders marketing materials implying that failure to change position would be risky, with language such as “Urgent notice regarding your [bank] Debit/ATM Card. Your immediate response is needed!”⁵⁴ and “STAY PROTECTED.”⁵⁵

More subtly, some banks blocked access to online banking accounts until the accountholder cleared a pop-up screen containing a forced choice—the accountholder had to click a button accepting or a button rejecting the no-overdraft default.⁵⁶ This pop-up would present every time the accountholder opened their online banking page until the accountholder agreed to opt out of the default position. Although formally giving consumers abundant opportunities to exercise choice, as a practical matter, the annoyance costs drove consumers to click whatever button would allow them to avoid the pop-up.⁵⁷

Here too, authorities would need to impose a suite of subsidiary framing rules, rather than merely an order prohibiting a particular self-preferencing default, to prevent firm circumvention of the consumer-facing remedy.⁵⁸ Moreover, these framing rules cannot be fully specified in advance. A recent white paper discussion of several provisions in the E.U. Digital Markets Act attempts to foresee all of the ways in which firms might try to evade the competition-enhancing intent of the law and suggests subsidiary rules that may be needed to prevent each of these evasive maneuvers.⁵⁹ The paper carefully culls lessons from past experiences with technology firms that have engaged in anticompetitive conduct. Yet, the very litany of rules needed to cut off evasive actions by firms compels the conclusion that it is impossible to predict all means of evasion and, therefore, that consumer-facing competition remedies will demand eternal vigilance from enforcement authorities. Authorities would need to become deeply involved in day-to-day firm operations to detect firm conduct that circumvents choice architecture remedies and would need the capacity, expertise, agility, and legal mandate to stop that conduct.

Further, eliminating self-preferencing choice architecture is not enough when a lack of interoperability means there is no real choice or when the actual or perceived difficulty of searching for, comparing, and switching to alternatives is too high. Market-wide rules requiring interoperability and making alternative products and

⁵³ See Willis, *When Nudges Fail*, *supra* note 36, at 1174–75.

⁵⁴ *Id.* at 1197.

⁵⁵ *Id.* at 1192.

⁵⁶ *Id.* at 1187–88.

⁵⁷ *Id.*

⁵⁸ Authorities could also impose altering rules that make it more difficult to opt out of the default and into the position preferred by the infringing firm. Cf. Ian Ayres, *Regulating Opt-Out: An Economic Theory of Altering Rules*, 121 *YALE L. J.* 2032 (2012).

⁵⁹ AMELIA FLETCHER, CENTRE ON REG. IN EUR., DMA SWITCHING TOOLS AND CHOICE SCREENS (Nov. 2022), https://cerre.eu/wp-content/uploads/2022/11/DMA_SwitchingToolsandChoiceScreens.pdf [<https://perma.cc/G9SA-RXAS>].

services easier to find and accurately compare are likely to be necessary corollaries to most forms of consumer-facing remedies.

C. Personal Data, Machine Learning, and Generative AI Will Supercharge Firm Evasion

The methods described above for shaping customer behavior and frustrating consumer-facing remedies are becoming outdated. Today, firms are not limited to a single menu of strategies applied to all consumers. Instead, firms can capitalize on personal data troves, machine learning, and generative artificial intelligence (“AI”) to produce and microtarget an evolving array of tactics. This is likely to dramatically increase the capacity of firms to design microtargeted consumer-facing barriers to competition.⁶⁰ Microtargeting can be powerful because consumer behaviors are strongly shaped by immediate context, experience,⁶¹ individual traits⁶² and states,⁶³ and the consumer’s broader context,⁶⁴ none of which are uniform among consumers or even static over time.⁶⁵

⁶⁰ For an in-depth examination of the ways in which dark patterns, which can be more effective when microtargeted using personal data, thwart competition in consumer markets, see generally Gregory Day & Abbey Stemler, *Are Dark Patterns Anticompetitive?*, 72 ALA. L. REV. 1 (2020). See also COMPETITION & MKTS. AUTH., ONLINE CHOICE ARCHITECTURE: HOW DIGITAL DESIGN CAN HARM COMPETITION AND CONSUMERS (2022), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1066524/Online_choice_architecture_discussion_paper.pdf [<https://perma.cc/CCP9-7EMW>].

⁶¹ See, e.g., Jyrki Suomala, *The Consumer Contextual Decision-Making Model*, 11 FRONTIERS PSYCH. 570430, at 5 (Sept. 29, 2020), <https://www.frontiersin.org/articles/10.3389/fpsyg.2020.570430/full> [<https://perma.cc/R2K8-MUXT>] (explaining that “our perception of the environment relies on prior beliefs as much as it does on incoming information . . .”).

⁶² See, e.g., Maarten van Rooij & Federica Teppa, *Personal Traits and Individual Choices: Taking Action in Economic and Non-Economic Decisions*, 100 J. ECON. BEHAV. & ORG. 33 (2014) (documenting effects of personality traits on economic decisions).

⁶³ See, e.g., Frank Schilbach, *Alcohol and Self-Control: A Field Experiment in India*, 109 AM. ECON. REV. 1290, 1292 (2019) (discussing the effect alcohol has on impulse control and economic (savings) behavior).

⁶⁴ Thomadsen et al., *supra* note 23, at 3 (defining context as “any factor that has the potential to shift the choice outcomes by altering the process by which the decision is made”).

⁶⁵ See, e.g., JoNell Strough, Tara E. Karns & Leo Schlosnagle, *Decision-Making Heuristics and Biases Across the Life Span*, 1235 ANNALS N.Y. ACAD. SCIS. 57, 57 (2011) (outlining a “contextual and motivational model of judgment and decision-making biases across the life span”); James Sundali & Rachel Croson, *Biases in Casino Betting: The Hot Hand and the Gambler’s Fallacy*, 1 JUDGMENT & DECISION MAKING 1, 8 (2006) (observing significant heterogeneity in incidence of measured biases among population of actual gamblers); Anna Conte, Marco Scarsini & Oktay Sürücü, *The Impact of Time Limitation: Insights from a Queueing Experiment*, 11 JUDGMENT & DECISION MAKING 260 (2016) (observing significant heterogeneity in effect of time restrictions on choice).

Specifically, firms increasingly use personal data, machine learning, and generative AI to do three things.⁶⁶ First, firms' machine learning systems can analyze tremendous amounts of data about past consumers and their actions and historical and real-time data about current individual consumers so as to predict which marketing materials, choice architectures, and offers will produce the most profitable response from each current consumer.⁶⁷ Second, based on these predictions, firms' systems can microtarget the delivery of digital environments and interactions so as to optimize profit in most cases, but they can also take a small proportion of cases, and instead of exploiting patterns observed in existing data, they can experiment.⁶⁸ Third, firms already employ generative (creative) AI to generate new marketing materials,⁶⁹ and this technology presumably soon will be able to create new pricing structures, cancellation processes, sales funnels, and choice architectures. These systems have the capacity to continually update the design of digital materials and interactions and the microtargeting of both based on consumer responses in the field. The process thus recursively adapts at machine-learning speed.⁷⁰

Absent effective legal constraints, where anticompetitive conduct is profitable, the optimization function driving these systems will produce anticompetitive conduct. For example, if a particular form of choice architecture will nudge consumers to select the firm's product or service or will act as a barrier to customers switching to another provider, the machine-learning system is likely to produce that choice architecture. Although microtargeted, personalized, real-time imposition of sludge is still in its infancy, it will only become easier for firms to do, and the profit motive will push firms along that path.⁷¹ Because consumer-facing remedies are

⁶⁶ For an overview, see Lauren E. Willis, *Deception by Design*, 34 HARV. J. L. & TECH. 115, 142–47 (2020).

⁶⁷ *Id.* at 127–30.

⁶⁸ *Id.* at 127–31.

⁶⁹ *Id.* at 130–31.

⁷⁰ In 2020, Google Brain announced a new automated machine learning system that eliminates human involvement in algorithm design; the system tests 10,000 models per second until it discovers the optimal algorithm for the task. See Courtney Linder, *This Is How Algorithms Will Evolve Themselves*, POPULAR MECHS. (Apr. 23, 2020), <https://www.popularmechanics.com/technology/a32221995/google-automl-zero-evolve-algorithms/> [<https://perma.cc/46KE-TP5B>].

⁷¹ See, e.g., Ruby Brooks, Duy Nguyen, Asim Bhatti, Steven Allender, Michael Johnstone, Chee Peng Lim & Kathryn Backholer, *Use of Artificial Intelligence to Enable Dark Nudges by Transnational Food and Beverage Companies: Analysis of Company Documents*, PUB. HEALTH NUTRITION, May 2022, at 1291, 1297 (reviewing evidence from firm documents demonstrating application of personalized nudges to increase firm revenue); Arvind Narayanan, Arunesh Mathur, Marshini Chetty & Mihir Kshirsagar, *Dark Patterns: Past, Present, and Future*, 18 ACM QUEUE 67, 79 (2020) (suggesting that business use of “personalized dark patterns that push each user’s specific buttons” is not yet pervasive only “because companies are busy picking lower-hanging fruit,” but noting that “this can change at any time”); Karen Yeung, *Hypernudge: Big Data as a Mode of Regulation by Design*,

blunt, in that they are directed at all of a firm's customers, they are unlikely to counter the plethora of microtargeted competition barriers that firms will increasingly be able to deploy.

That multiple competing firms are all attempting to engage in this microtargeting process does not mean their efforts cancel one another out. Instead of competition taking place over the price, features, and quality of a product or service, competition may shift to which firm's marketing, sales, and customer retention systems are the most effective.⁷² Further, larger firms with more personal data, more technological capacity to collect real-time data, and more firepower on which to run machine learning and generative AI processes—the very firms that are likely to dominate the market—are likely to microtarget barriers to competition more effectively.⁷³

D. Front-End Fixes May Be Futile

Recognizing some of the weaknesses in consumer-facing competition remedies, regulators have suggested various methods for improving remedies' design.

At the initial stage of consumer-facing remedy design, competition authorities have proposed that experts in consumer behavior should audit the customer "journey,"⁷⁴ and consumers should be interviewed or surveyed⁷⁵ to understand the barriers to shopping and switching. However, experts who might audit consumer shopping journeys are unlikely to have the same reactions as any but a narrow segment of highly educated consumers. And experts cannot predict what consumers

20 INFO., COMMC'N & SOC'Y 118, 122 (2017) (coining "hypernudge" to refer to personalized nudging and sludge).

⁷² Cf. Maurice E. Stucke, *Is Competition Always Good?*, 1 J. ANTITRUST ENF'T 162, 174 (2013) ("[C]ompetition harms society when firms compete to better exploit consumers' bounded rationality or willpower.").

⁷³ See, e.g., Vijay Govindarajan, Baruch Lev, Anup Srivastava & Luminita Enache, *The Gap Between Large and Small Companies Is Growing. Why?*, HARV. BUS. REV. (Aug. 16, 2019), <https://hbr.org/2019/08/the-gap-between-large-and-small-companies-is-growing-why> [<https://perma.cc/C8QU-ES9V>] (suggesting that small companies cannot effectively compete with large companies due to the latter's "[e]xclusive control over customers' data").

⁷⁴ See, e.g., ORG. FOR ECON. COOP. & DEV., REMEDIES AND COMMITMENTS IN ABUSE CASES: OECD COMPETITION POLICY ROUNDTABLE BACKGROUND NOTE 7 (2022) [hereinafter OECD, REMEDIES AND COMMITMENTS IN ABUSE CASES], <https://www.oecd.org/daf/competition/remedies-and-commitments-in-abuse-cases-2022.pdf> [<https://perma.cc/T99Y-CATD>].

⁷⁵ See, e.g., ORG. FOR ECON. COOP. & DEV., DESIGNING AND TESTING EFFECTIVE CONSUMER-FACING REMEDIES – BACKGROUND NOTE 29–30 (2018) [hereinafter OECD, DESIGNING AND TESTING], [https://one.oecd.org/document/DAF/COMP/WP3\(2018\)2/En/pdf](https://one.oecd.org/document/DAF/COMP/WP3(2018)2/En/pdf) [<https://perma.cc/H826-L9EX>].

will do; machine learning outperforms even marketers' predictions.⁷⁶ Further, while consumers may have some insight into why they do not comparison shop and why they do not switch, by the time regulators design consumer-facing remedies to address these issues, the market will have changed. It is not that surveys and audits are useless; they can identify potential consumer-facing barriers to competition. But they cannot do so thoroughly, and they cannot be used to design remedies that will be successful over time.

Cognizant of some of these critiques, competition authorities have suggested testing consumer-facing remedies in experiments in the lab and in randomized controlled trials in the field.⁷⁷ But the former has weak external validity because the real-world context in which consumers are exposed to the remedy is overwhelmingly influential and cannot be recreated in the lab. These tests also cannot capture the effects of the conduct in which firms will engage to reframe the remedy, much less the microtargeting of those maneuvers. Field trials are better at capturing context, but firms know well enough to wait until the field testing is over before manipulating and personalizing the framing of an imposed remedy. Recall also that the shelf life of any particular consumer remedy may be limited; for example, consumers might notice the content of a pop-up box the first time it appears but will quickly become inured to it.

For an externally valid approach, it has also been suggested that consumer-facing remedies should be audited post-implementation and then revised as needed if the remedies do not have their intended effects.⁷⁸ This would capture the effects of a firm's actual microtargeting and any changes over time in the market and in the firm's behavior. Certainly, post-implementation evaluation and flexibility to respond to unforeseen issues are vitally important. Unfortunately, at least at present, enforcement authorities are institutionally constrained from acting with the necessary speed. Even putting judicial approval aside, authorities cannot revise remedies as quickly as firms can change tactics. Moreover, authorities cannot target remedies to different audiences much, if at all, and certainly not to the degree that would be needed to be as effective as firms' targeted countermeasures.

II. LESSONS AND IMPLICATIONS

The purposes of competition remedies are not only to end anticompetitive conduct but to prevent the recurrence of the conduct and address past consumer harm.⁷⁹ When successful, structural remedies remove the incentive to repeat the

⁷⁶ Pål Sundsøy, Johannes Bjelland, Asif Iqbal, Alex Sandy Pentland & Yves-Alexandre de Montjoye, *Big Data-Driven Marketing: How Machine Learning Outperforms Marketers' Gut-Feeling*, in *SOCIAL COMPUTING, BEHAVIORAL-CULTURAL MODELING & PREDICTION* 367, 368 (William G. Kennedy, Nitin Agarwal & Shanchieh Jay Yang, eds., 2014).

⁷⁷ See OECD, *DESIGNING AND TESTING*, *supra* note 75, at 30–33.

⁷⁸ *Id.* at 33–36.

⁷⁹ See, e.g., *United States v. Microsoft Corp.*, 253 F.3d 34, 103 (D.C. Cir. 2001) (“The Supreme Court has explained that a remedies decree in an antitrust case must seek to . . .

conduct. Consumer-facing remedies seek to strengthen consumer shopping and switching, both to prevent the recurrence of anticompetitive conduct and to roll back the effects of past anticompetitive conduct somewhat. Data privacy remedies, suggested below, would deprive firms of some of the fuel that may facilitate anticompetitive firm conduct. Performance-based remedies, also discussed below, seek to enhance competition by changing firm incentives. But none of these are likely to be effective without centering strong market-wide competition regulation, with case-by-case competition remedies at the periphery.

A. Reconsider Structural Remedies

One lesson from the foregoing analysis of consumer-facing remedies is that structural and other “heavy-handed” remedies might not be so bad. If competition authorities need to control firm implementation of a prohibition on self-preferencing defaults with a web of subsidiary prohibitions and mandates, perhaps it would be better to require that, for example, an operating system manufacturer divest itself of its browser business.

That disappointing experience with non-structural remedies calls for a re-evaluation of skepticism about structural remedies is not a new insight.⁸⁰ What the analysis above adds is a conclusion that not only are the consumer-facing remedies attempted thus far inadequate for addressing anticompetitive conduct, but that the only way to make these remedies effective would involve intervention at least as heavy-handed as structural remedies.

Quite possibly, no single framing of consumers’ exposures to a consumer-facing remedy would be terribly effective in increasing shopping and, thus, competition. Consumers are already so inundated with messaging⁸¹ that they are unlikely to hear a generic message advising them to shop around. Different barriers to shopping and switching affect the consumer population heterogeneously, with both consumer traits and consumer states affecting the strength of these barriers.⁸² Choice architecture also has varying effects, although some systems have been built

“terminate the illegal monopoly . . . and ensure that there remain no practices likely to result in monopolization in the future.” (quoting *United States v. United Shoe Mach. Corp.*, 391 U.S. 244, 250 (1968)); Eleanor M. Fox, *Remedies and the Courage of Convictions in a Globalized World: How Globalization Corrupts Relief*, 80 TUL. L. REV. 571, 573 (2005) (“Our remedial goals are both macro and micro. The micro goal is to cure the particular market problem . . . and to compensate the victims. The macro goal is to put incentives in place so as to minimize the recurrence of just such anticompetitive conduct.”); *see also* 15 U.S.C. § 25 (placing a duty upon the federal government “to institute proceedings in equity to prevent and restrain” violations of the Sherman Act in the U.S. (emphasis added)).

⁸⁰ *See, e.g.*, OECD, REMEDIES AND COMMITMENTS IN ABUSE CASES, *supra* note 74.

⁸¹ *Cf.* Jon Simpson, *Finding Brand Success in the Digital World*, FORBES (Aug. 25, 2017, 8:00 AM), <https://www.forbes.com/sites/forbesagencycouncil/2017/08/25/finding-brand-success-in-the-digital-world/?sh=34725951626e> [<https://perma.cc/S9BQ-EQU5>].

⁸² *See, e.g.*, Burnham et al., *supra* note 42, at 117 (finding both the trait of risk aversion and the state of experiencing time pressure affect customers’ reactions to switching costs).

that can drive the behavior of even experts, who would seem less likely to be influenced.⁸³

But enforcement authorities could not tailor the content, format, and timing of information remedies to different subsets of consumers without leveraging much of the firm's marketing apparatus. To design microtargeted choice architectures that would minimize shopping and switching barriers for heterogeneous consumers would call for requisitioning the firm's website design systems and more. Real-time experimentation with potential messaging, switching processes, and choice architecture could only be performed from an embedded position within the firm. Moreover, to ensure that consumer-facing remedies remain effective after initial implementation would require authorities to micromanage firm operations for the life of the remedy to prevent the firm from undermining the mandated nudge or removal of specified sludge.

Obviously, requisitioning swaths of a firm's resources and operations is not what authorities do best and eliminates the light-touch enforcement premises on which consumer-facing remedies are based. Continued micromanagement of firm operations also presents the danger of enforcement authority capture.⁸⁴ Structural remedies are intrusive but relatively quick and arms-length, allowing market forces to shape the activity of the restructured firm(s).

Of course, particularly in the digital space, structural remedy design is challenging. Network externalities make it difficult to design break-ups that do not destroy value or result in re-agglomeration.⁸⁵ The costs and risks of structural remedies must be calculated and, where possible, mitigated using creative conduct remedies or performance-based remedies, discussed below. But if the benefits of consumer-facing remedies are nil, structural remedies deserve a closer look.

⁸³ For example, Google software engineers have been deceived by the design of Google's interface into sharing location data they did not intend to share. See Jerod MacDonald-Evoy, *Unsealed Google Lawsuit Docs Show Its Own Engineers Were Confused by Privacy Settings*, IOWA CAP. DISPATCH (Aug. 26, 2020, 12:17 PM), <https://iowacapitaldispatch.com/2020/08/26/unsealed-google-lawsuit-docs-show-its-own-engineers-were-confused-by-privacy-settings/> [<https://perma.cc/G7FH-QLPJ>].

⁸⁴ Cf. Justin Rex, *Anatomy of Agency Capture: An Organizational Typology for Diagnosing and Remediating Capture*, 14 REGUL. & GOVERNANCE 271, 280–86 (2020) (finding evidence of capture of financial regulators by the banks they regulated in the run-up to the 2008 financial crisis and noting that at large financial institutions “examiners remain on site continuously, working alongside bank employees.”).

⁸⁵ See JEAN TIROLE, COMPETITION AND THE INDUSTRIAL CHALLENGE FOR THE DIGITAL AGE? 4–5 (2022), <https://ifs.org.uk/inequality/wp-content/uploads/2022/03/Competition-and-the-industrial-challenge-IFS-Deaton-Review.pdf> [<https://perma.cc/SPB8-NMX6>].

B. Recommit to Data Privacy

Control over consumer data has been identified as crucial to a variety of ways that incumbent firms can exclude competitors, including feedback loops, network effects, and economies of scale.⁸⁶ These issues have been thought to imply data portability and interoperability remedies—giving competitor firms or third-party aggregators access to more data so as to allow consumers to more easily switch, in whole or in part, to new providers directly or through aggregators that facilitate multi-homing and comparison shopping.

As others have recognized, data privacy regimes can conflict with the data portability needed to minimize switching costs.⁸⁷ To the extent that privacy regimes prohibit data exchange between firms while allowing firms to collect, retain, and exploit data regarding their own interactions with consumers, dominant firms will have a tremendous competitive advantage.⁸⁸ This problem suggests a portability carve-out from data protection rules.

But the review above of consumer-facing remedies reveals a different problem, one that implies not more availability of easier-to-access personal data but dramatically less. Machine learning systems need personal data to develop microtargeted barriers to competition. Personal data, therefore, is likely to fuel firm maneuvering around consumer-facing competition remedies. One way to prevent a firm that has engaged in anticompetitive conduct from undermining consumer-facing remedies is to deprive it of this fuel, whether through restrictions on data collection, data retention, or data use.⁸⁹

C. Roll Out Performance-Based Competition Remedies

Doubts about the efficiency of structural remedies, uncertainty about the efficacy of data privacy mandates, and the speed with which firms can outrun consumer-facing competition remedies (and the potential for both firm disruption and agency capture inherent in competition authority attempts to identify and stop this dynamic) all beg for a new approach to competition remedies.

One promising avenue is performance-based remedies.⁹⁰ A performance-based approach has been applied in both market-wide regulation and remedies for

⁸⁶ See, e.g., ORG. FOR ECON. COOP. & DEV., DATA PORTABILITY, INTEROPERABILITY AND DIGITAL PLATFORM COMPETITION 7 (2021), <https://www.oecd.org/daf/competition/data-portability-interoperability-and-digital-platform-competition-2021.pdf> [<https://perma.cc/X5YH-5JCR>].

⁸⁷ See, e.g., *id.* at 38.

⁸⁸ Cf. TIROLE, *supra* note 85, at 12–14.

⁸⁹ See Omri Ben-Shahar, *Data Pollution*, 11 J. LEGAL ANALYSIS 104 (2019) (recognizing externalities created by collection and use of personal data and suggesting a variety of regulatory responses).

⁹⁰ Cf. Lauren E. Willis, *Performance-Based Remedies: Ordering Firms to Eradicate Their Own Fraud*, 80 L. CONTEMP. PROBS. 7, 30–32 (2017) [hereinafter Willis,

misconduct by specific wrongdoers.⁹¹ It is most well-known in the environmental law arena, where it is applied in both regulation⁹² and remedies.⁹³ Rather than dictating that a factory smokestack must incorporate a particular type of scrubber, the remedy or the regulation sets limits on firm emissions, and the firm then determines how to meet those limits.⁹⁴ Failure to do so results in sanctions, typically deterrent-level fines. By uniting the goals of firms with the goals of the enforcement authority or regulator, firm innovation is harnessed in finding ways to meet those goals. By continually or at frequent intervals monitoring the outcome of interest, authorities and regulators obtain information that they can use to stop problems before substantial harm occurs. Performance-based remedies and regulations are thus more functional and more adaptive than consumer-facing remedies or regulations.

Performance-based remedies have been adopted in a host of cases where authorities discovered that remedies ordering or prohibiting specified conduct were futile. For example, after *Brown v. Board of Education*, courts and enforcement agencies attempted in vain to employ conduct injunctions to achieve school

Performance-Based Remedies] (reviewing applications of performance-based litigation remedies in various arenas, including civil rights, prison reform, deceptive advertising, and environmental protection); Ian Ayres & Amy Kapczynski, *Innovation Sticks: The Limited Case for Penalizing Failures to Innovate*, 82 U. CHI. L. REV. 1781, 1830 (2015) (proposing that car manufacturers be penalized for their fleets' failure to meet median market-wide performance measures of auto accident morbidity and mortality rates per vehicle-mile); Stephen D. Sugarman, *Enticing Business to Create a Healthier American Diet: Performance-Based Regulation of Food and Beverage Retailers*, 36 L. & POL'Y 91, 91 (2014) (proposing a performance-based regulatory strategy for reducing consumption of unhealthy foods). This type of remedy has also been called "outcomes-based." See, e.g., Sheldon Mills, *What Firms and Customers Can Expect from the Consumer Duty and Other Regulatory Reforms*, Address Before the Consumer Protection in Financial Services Summit (Sept. 29, 2022), <https://www.fca.org.uk/news/speeches/what-firms-and-customers-can-expect-consumer-duty-and-other-regulatory-reforms> [<https://perma.cc/2PP8-R2JP>] (using "outcomes-based" to describe new U.K. regulations placing a duty upon financial services firms to produce good customer outcomes).

⁹¹ See Willis, *Performance-Based Remedies*, *supra* note 90, at 8.

⁹² See, e.g., *Frequently Asked Questions About Air Emissions Monitoring*, U.S. EPA, <https://www.epa.gov/air-emissions-monitoring-knowledge-base/frequently-asked-questions-about-air-emissions-monitoring> [<https://perma.cc/9WSD-KV42>] (last visited Mar. 30, 2023).

⁹³ See, e.g., Consent Decree, *United States v. S. Coal Co.*, No. 7:16-cv-00462-GEC, 26–28 (W.D. Va. Sept. 30, 2016) (ordering defendants to hire a third-party environmental auditor to assess defendants' compliance in meeting specified environmental performance benchmarks set forth in the order).

⁹⁴ See J.R. DeShazo & Jody Freeman, *Timing and Form of Federal Regulation: The Case of Climate Change*, 155 U. PA. L. REV. 1499, 1508 (2007) (describing performance-based regulation in the environmental context as "end-of-pipe" standards that "permit flexible compliance (perhaps by allowing installation of technology at a local facility, fuel switching, or other strategies) . . .").

desegregation.⁹⁵ They then turned to a performance-based remedy: ordering defendants to meet specified racial integration benchmarks.⁹⁶ In 2011 in *Brown v. Plata*,⁹⁷ the U.S. Supreme Court reaffirmed the propriety of performance-based remedies. The Court upheld a district court order giving California two years to lower its inmate population density to 137.5% of prison design capacity.⁹⁸ Rather than specifying how the defendant should reach this benchmark, the State was given the freedom and the responsibility for determining the best way, given its particular circumstances, to do so.⁹⁹

In the consumer protection arena, performance-based remedies and regulations are becoming more prevalent. The Gainful Employment Rule provides a good example. The Rule conditioned schools' eligibility to receive federal student-loan funds on the loan-repayment rates and debt-to-earnings ratios of its former students.¹⁰⁰ It was promulgated in response to concerns about the rising number of students with unaffordable debt levels and poor employment prospects, due in large part to sub-standard education and training programs at some for-profit colleges and universities, sold through unfair and deceptive recruiting practices.¹⁰¹ Rather than specifying the inputs necessary for an adequate education program or relying on enforcement authorities to demonstrate unfair or deceptive recruitment practices case-by-case, the Gainful Employment Rule required schools to demonstrate that their former students attained specified employment benchmarks to avoid being sanctioned.

The United Kingdom is in the process of moving to a performance-based (or, as they refer to it, "outcomes-based") approach for regulating consumer financial transactions.¹⁰² The new "Consumer Duty" obligates firms to regularly monitor the outcomes their customers experience from the firm's products, communications, and

⁹⁵ See generally J. Harvie Wilkinson III, *The Supreme Court and Southern School Desegregation, 1955–1970: A History and Analysis*, 64 VA. L. REV. 485 (1978).

⁹⁶ This was upheld by the U.S. Supreme Court as an equitable remedy for prior race discrimination in *Swann v. Charlotte-Mecklenburg Board of Education*, 402 U.S. 1 (1971).

⁹⁷ 563 U.S. 493, 541–45 (2011).

⁹⁸ *Id.*

⁹⁹ *Id.* at 500 (stating "[t]he order leaves the choice of means to reduce overcrowding to the discretion of state officials," and suggesting that the state would likely change its conduct in a host of ways to produce the result required by the decree).

¹⁰⁰ Program Integrity: Gainful Employment, 79 Fed. Reg. 64,890, 64,890 (Oct. 31, 2014), <https://www.govinfo.gov/content/pkg/FR-2014-10-31/pdf/2014-25594.pdf> [<https://perma.cc/5YEE-KFDG>].

¹⁰¹ *Id.* The Gainful Employment Rule was rescinded by the Trump Administration, but the Biden Administration is expected to issue a new proposed rule in 2023. See *Gainful Employment Web Center*, NAT'L ASS'N OF STUDENT FIN. AID ADM'RS (Sept. 21, 2022), <https://www.nasfaa.org/ge> [<https://perma.cc/EV86-HZ9P>].

¹⁰² For an overview of the new regulation in the United Kingdom, as well as a discussion of a similar approach recently put in place by consumer financial regulators in Australia, see Lauren E. Willis, *Performance-Based Consumer and Investor Protection: Corporate Responsibility Without Blame*, in *THE CULPABLE CORPORATE MIND* 417, 432–36 (Elise Bant ed., 2023).

customer support to ensure good customer outcomes. One such outcome is that their customers can switch from or exit the firm's products without unreasonable barriers or delay.¹⁰³ If a firm identifies areas of common customer misunderstanding about switching or that its customers are not able to switch away from the firm's products without unreasonable barriers or delay, it must adapt its communications and, if that would be insufficient, adapt its products or processes (e.g., sales, support, or cancellation processes) to correct the misunderstanding or eliminate the unreasonable barrier or delay.¹⁰⁴ A more precise definition of what constitutes evidence of an unreasonable barrier or delay will presumably be developed as the Consumer Duty regulation comes into force and is applied over time.

In the competition context, a performance-based remedy applied to a firm that had engaged in anticompetitive conduct would involve three steps: first, setting measurable outcome benchmarks that demonstrate that the firm's customers are not encountering any unnecessary barriers to shopping and switching; second, giving the firm the responsibility and flexibility to reach these benchmarks; and third, penalizing the firm if it does not demonstrate achievement of the outcome benchmarks.

In contrast to consumer-facing information remedies, performance-based competition remedies would not directly mandate that a firm inform its customers of their right to shop around. Instead, the remedy might require the firm to demonstrate, through random sample testing, that its customers know that they can shop around, believe the costs of doing so to be minimal, and, perhaps, understand that the returns on shopping can be significant (i.e., that there is significant dispersion in price, features, and quality of competing products). The numerical benchmark for compliance with the remedy might be selected to reflect levels of consumer understanding found in markets known to be fairly competitive or levels of understanding experienced by customers of competitor firms.¹⁰⁵

¹⁰³ See FIN. CONDUCT AUTH., CONSUMER DUTY INSTRUMENT 2022 (2022) [hereinafter FIN. CONDUCT AUTH., CONSUMER DUTY INSTRUMENT 2022], https://www.handbook.fca.org.uk/instrument/2022/FCA_2022_31.pdf [<https://perma.cc/PAQ2-SK2U>]; FIN. CONDUCT AUTH., A NEW CONSUMER DUTY: FEEDBACK TO CP21/36 AND FINAL RULES (2022), <https://www.fca.org.uk/publication/policy/ps22-9.pdf> [<https://perma.cc/24CA-YW74>]; FIN. CONDUCT AUTH., PRINCIPLES FOR BUSINESS: PRIN 2A.2.20, <https://www.handbook.fca.org.uk/handbook/PRIN/2A/2.html?date=2104-01-01> [<https://perma.cc/3KNU-C67Z>] (last visited Mar. 7, 2023).

¹⁰⁴ See FIN. CONDUCT AUTH., CONSUMER DUTY INSTRUMENT 2022, at PRIN 2A.5.10 & 2A.5.13.

¹⁰⁵ Benchmarks that demonstrate the absence of barriers to robust shopping are not capable of precise scientific determination, but the perfect should not be the enemy of the good. *Cf. Plata v. Schwarzenegger*, No. C01-1351 TEH, at *124-30 (N.D. Cal. Aug. 4, 2009), <http://cdn.ca9.uscourts.gov/datastore/general/2009/08/04/Opinion%20&%20Order%20FINAL.pdf> [<https://perma.cc/YQH9-C9SE>] (noting that the 137.5% design capacity benchmark as a remedy for prison overcrowding was reasonable and therefore legally acceptable, given that the number that would satisfy the Constitution's prohibition on cruel and unusual punishment by inhumane conditions of confinement was not capable of scientific determination).

Similarly, in place of a prohibition on specified switching costs, firms might have a duty to minimize the switching costs perceived and the switching costs experienced by their customers. For example, an infringing firm could be required to demonstrate over the life of the remedy through records audits, that the switching costs (time, money, clicks, etc.) experienced by its customers are minimal, that its customers spend no more time to cancel than to sign up for the firm's offerings, and that its customers rarely abandon an attempt to switch after beginning the switching process. Another outcome benchmark, demonstratable through random sample surveys of the firm's customers who do not switch, might be that those customers believe the cost, time, and difficulty of switching are low or very low.¹⁰⁶

Beyond a prohibition on firm self-preferencing choice architecture, a performance-based remedy for anticompetitive conduct might be to require that the firm demonstrate that its customers understand their options (among, e.g., search engine or title insurance providers), know how to change from one provider to another, and can easily change at the times when the costs and benefits of those options are likely to be experienced. The benchmark might be that the firm's customers spend no less time and effort when they select an offering from the infringing firm than when they select a different provider.

As noted above, informing consumers of their right to shop, lowering barriers to switching, and removing self-preferencing choice architecture are all effective at stimulating muscular consumer shopping only if consumers can compare offerings in the marketplace so as to determine which offerings provide the best value for the money, relative to their own needs and wants. This suggests that another measurable competition-enhancing outcome would be evidence that consumers understand product and service costs, risks, and limitations on benefits sufficiently well to accurately comparison shop. As a performance-based competition remedy, a firm might need to demonstrate through surveys that its customers know the prices they are paying, the risks they are taking, and the limitations on benefits they will receive from their transactions with the firm. More indirect evidence would be firm records demonstrating that the firm's customers select only nondominated options from the firm's offer set; if customers cannot understand the firm's offerings well enough to avoid dominated offerings in the firm's offer set, they are unlikely to be able to compare the firm's offerings to its competitors' offerings, which is some evidence that the firm has not adequately conveyed to its customers the costs, risks, and limitations on benefits of its offerings. A failure to adequately convey this information is a barrier to consumer shopping.

Typically, consumer-facing competition remedies specify the prescribed or proscribed conduct in some detail. With a performance-based approach, firms have

¹⁰⁶ The level of actual switching would not necessarily be an appropriate benchmark, given that vigorous shopping does not necessarily mean switching; the threat of switching may be enough to keep a current provider's quality high and price low. However, where the firm that engaged in anticompetitive conduct offers products or services that are strictly dominated by offerings from the same firm or its competitors, the firm might have a duty to demonstrate significant levels of switching by its customers away from those strictly dominated offerings.

the responsibility and flexibility to achieve the required competition outcomes in the manner that best suits the firm. A firm subject to a performance-based competition remedy could perform a sludge audit on itself to identify and reduce friction in its processes for customers to cancel or switch. A firm could redesign its prices and limitations on benefits to be simpler and more intuitive. A firm could eliminate dominated offerings from its offer sets. A firm could effectively and accurately communicate prices of its offerings, limitations on their benefits, how to cancel, and the ease of switching.

Returning to the example of the ineffectiveness of the United Kingdom's data portability and switching service regime in boosting welfare-enhancing consumer switching away from their current retail banking providers, the regulator noted that the regime was technology-led rather than consumer-led and suggested that market studies of consumers would allow the regulator to redesign a better system for increasing competition.¹⁰⁷ But it is firms that excel at discovering and capitalizing on various consumer needs, desires, capacities, beliefs, experiences, habits, etc., to develop marketing and sales approaches that work best. Those same firms could leverage their systems and data to determine how best to change consumer beliefs about the costs and risks of switching.

For each such strategy for meeting the required competition outcome benchmarks, firms would have at their disposal the same technology employed in their marketing and sales systems. They could thus experiment, measure, and adapt their approaches recursively, microtargeting through personal data (if collection, storage, and use are not yet limited in a manner that would prevent it), at machine learning speed.

After authorities select performance benchmarks and the firm determines how to meet the benchmarks, the firm could hire independent expert auditors to conduct random sample customer surveys or to examine firm records to assess whether the firm has achieved the required outcomes.

Competition authorities must both monitor and incentivize compliance. They must ensure that the auditors hired by infringing firms are truly independent and expert, and that the measures used to assess those firms are truly capturing whether competitive dynamics are present. A lesson here comes from the regulation of emissions. Firms at first built higher smokestacks to trick Environmental Protection Agency (EPA) ground-based monitors into lower readings than what was coming

¹⁰⁷ FIN. CONDUCT AUTH., OPEN FINANCE: FEEDBACK STATEMENT 11 (2021), <https://www.fca.org.uk/publication/feedback/fs21-7.pdf> [https://perma.cc/UJ9Y-N9TG]. Note that it is still uncertain whether the new Open Banking system in the United Kingdom will increase competition; thus far, it does not appear to have improved consumer shopping or otherwise increased the competitiveness of the marketplace for core banking products. See Bowman, *supra* note 43, at 6 (“There is no indication that Open Banking has increased switching between current account providers . . .”).

out of the stacks. The EPA had to revise the formula for measuring emissions to take smokestack height vis-a-vis monitor placement into account.¹⁰⁸

Compliance with a performance-based competition enforcement scheme must be adequately incentivized, or non-compliance will become a mere cost of doing business. Substantial fines are one possibility. Another is to impose structural remedies on firms that are unable to effectively eliminate barriers to customer shopping that restrain competition.

D. Move to Market-Wide Regulation

Even the most effective consumer-facing or performance-based remedy aimed at producing changes in an infringing firm's behavior, however, will stumble over a final hurdle to invigorating consumer shopping—the difficulty consumers face in locating and comparing available offerings of all firms so as to select the offering that produces the most value for money to the consumer. That is, the success of these remedies may depend on other firms' conduct, not only the firm that has engaged in anticompetitive conduct. Without market-wide competition conduct regulation, both consumer-facing and performance-based competition remedies will have limited impact.

Comparability is a particular challenge for complex products and services, such that even with a strong nudge to shop and no sludge blocking the way, consumers may, whether due to loss aversion, status quo bias, regret aversion, or the slightest shopping or switching cost, stay with their current provider or choose the first provider they find that minimally meets their needs. For example, the consumer-facing choice screen remedy imposed on Microsoft in the E.U. may have failed due to this dynamic.¹⁰⁹ Any previous anticompetitive conduct that led the consumer to their current provider will not be fully remedied unless market-wide regulation facilitates consumer comparison shopping.

CONCLUSION

Assigning consumers the task of disciplining markets is frequently attempted but rarely achieved. We teach financial literacy classes with the hope that consumers will avoid overly-risky and overly-costly financial products. We require calorie labels with the hope that consumers will use them to reduce obesity. We pre-select a no-overdraft default with the hope that consumers will stick with the default and avoid overdraft fees. None of these approaches are terribly effective at achieving the ends sought because, in each instance, the intervention—the classes, the disclosures,

¹⁰⁸ See U.S. GOV'T ACCOUNTABILITY OFF., GAO-11-473, AIR QUALITY: INFORMATION ON TALL SMOKESTACKS AND THEIR CONTRIBUTION TO INTERSTATE TRANSPORT OF AIR POLLUTION 2 (2011), <https://www.gao.gov/assets/gao-11-473.pdf> [<https://perma.cc/T5JC-Y3Q5>] (summarizing history).

¹⁰⁹ See, e.g., Duque, *supra* note 21, at 3–4, 7–8 (suggesting that this satisficing dynamic was what rendered the Microsoft browser choice screen largely ineffective).

or the defaults—produce unexpected heterogeneous consumer responses and are met with a barrage of firm countermeasures.¹¹⁰

So too with consumer-facing competition remedies, the firm subject to the remedy gets the last move and can run circles around the remedy. Reducing firm access to consumer data holds some promise for slowing the speed at which firms can run; microtargeted tactics are likely to be more effective than generic plays in undercutting consumer-facing remedies, and firms need personal data to microtarget. By changing firm incentives, performance-based remedies promise to cut through this dynamic entirely, and while their effectiveness in the competition realm remains to be seen, they should be preferred to the consumer-facing remedies that have already failed. Parallel to the imposition of performance-based competition remedies on firms that have engaged in anticompetitive conduct, competition authorities must engage in market-wide regulation that facilitates effective consumer comparison shopping and therefore substantive competition. Given widespread concern about concentration in so many industries today, competition law may need to break new legal ground to remedy and constrain anticompetitive behavior.

¹¹⁰ See, e.g., Lauren E. Willis, *Evidence and Ideology in Assessing the Effectiveness of Financial Literacy Education*, 46 SAN DIEGO L. REV. 415 (2009) (documenting lack of evidence of effectiveness of financial literacy education in improving financial choices); Long et al., *supra* note 4 (reviewing evidence that calorie labels had no significant effect on calorie intake or obesity); Willis, *When Nudges Fail*, *supra* note 36, at 1174–1200 (documenting slipperiness of the no-overdraft default).