

University of Pennsylvania Carey Law School

Penn Law: Legal Scholarship Repository

Faculty Scholarship at Penn Law

2019

Making Consumer Finance Work

Natasha Sarin

University of Pennsylvania Carey Law School

Follow this and additional works at: https://scholarship.law.upenn.edu/faculty_scholarship



Part of the [Administrative Law Commons](#), [Banking and Finance Law Commons](#), [Consumer Protection Law Commons](#), [Finance Commons](#), [Law and Economics Commons](#), and the [Public Law and Legal Theory Commons](#)

Repository Citation

Sarin, Natasha, "Making Consumer Finance Work" (2019). *Faculty Scholarship at Penn Law*. 2047.
https://scholarship.law.upenn.edu/faculty_scholarship/2047

This Article is brought to you for free and open access by Penn Law: Legal Scholarship Repository. It has been accepted for inclusion in Faculty Scholarship at Penn Law by an authorized administrator of Penn Law: Legal Scholarship Repository. For more information, please contact PennlawIR@law.upenn.edu.

MAKING CONSUMER FINANCE WORK

Natasha Sarin*

The financial crisis exposed major fault lines in banking and financial markets more broadly. Policymakers responded with far-reaching regulation that created a new agency—the Consumer Financial Protection Bureau—and changed the structure and function of these markets.

Consumer advocates cheered reforms as welfare enhancing, while the financial sector declared that consumers would be harmed by interventions. With a decade of data now available, this Article examines the successes and failures of the consumer finance reform agenda. Specifically, it marshals data from every zip code and bank in the United States to test the efficacy of three of the most significant postcrisis reforms: in the debit, credit, and overdraft markets.

The results are surprising. Despite cosmetic similarities, these reforms had very different outcomes. Two (changes in the credit and overdraft markets) increase consumer welfare, while the other (in the debit market) decreases it. These findings run counter to prior work by prominent legal scholars and encourage reevaluation of our (mis)conceptions about the efficacy of regulation.

The evidence leads to several insights for regulatory design. First, banks regularly levy hidden fees on consumers, obscuring the true cost of financial products. Regulators should restrict such practices. Second, consumer finance markets are regressive: Low-income customers often pay higher prices than their higher-income counterparts. Regulators should address this inequity. Finally, banks tend to discourage regulation by promising their costs will be passed through to consumers. Regulators should not be overly swayed by their dire warnings.

* Assistant Professor of Law, University of Pennsylvania Law School; Assistant Professor of Finance, The Wharton School of the University of Pennsylvania. For thoughtful guidance, I am indebted to Howell Jackson, Louis Kaplow, Lawrence Summers, and Cass Sunstein. For helpful conversations, I am grateful to Douglas Baird, Oren Bar-Gill, Michael Barr, Robert Bartlett, Michal Barzuza, Omri Ben-Shahar, Cary Coglianese, Ezra Friedman, Joe Grundfest, David Hoffman, Alex Lee, Adam Levitin, Dorothy S. Lund, Vladimir Mukharlyamov, Eva Nagypal, Gideon Parchomovsky, Frank Partnoy, Randal Picker, Steven Shavell, Steven Davidoff Solomon, Guhan Subramaniam, Aileen Thomas, and Tess Wilkinson-Ryan. I also thank seminar participants at Harvard Law School, University of Virginia Law School, University of Pennsylvania Law School, Northwestern Law School, University of Chicago Law School, University of Texas Law School, Berkeley Law School, Stanford Law School, the Consumer Financial Protection Bureau, the Brookings Institution, and the American Law and Economics Association. I thank Noah Becker for outstanding research assistance.

INTRODUCTION	1521
I. POSTCRISIS INTERVENTIONS.....	1531
A. The Durbin Amendment.....	1531
1. The Policy Problem.....	1531
2. Regulatory Approach to Solving the Problem	1533
3. Impact of Regulatory Intervention.....	1535
4. Unintended Consequences of Intervention	1543
B. The CARD Act.....	1546
1. The Policy Problem.....	1546
2. Regulatory Approach to Solving the Problem	1548
3. Impact of Regulatory Intervention.....	1549
4. Unintended Consequences of Intervention	1551
C. Overdraft	1552
1. The Policy Problem.....	1552
2. Regulatory Approach to Solving the Problem	1554
3. Impact of Regulatory Intervention.....	1556
4. Unintended Consequences of Intervention	1557
II. LESSONS OF THESE INTERVENTIONS	1559
A. Regulators Should Target Nonsalient Prices	1560
1. Price Regulation Can Tackle Salience Problems	1561
2. An Alternative to Direct Price Regulation Is a Shock to Consumer Attention.....	1562
B. Regulators Should Address Inequitable Cross-Subsidies	1568
1. Regulators Should Use Consumer Protection Authority to Tackle Inequitable Cross-Subsidization	1572
2. Regulation that Helps Low-Income Consumers—Even if at the Expense of Their Wealthy Counterparts—Is Desirable	1577
C. Watch What Firms Do, Not What They Say	1578
1. Listening to Banks Can Lead to Poorly Designed Regulation.....	1581
2. Listening to Banks Can Lead to Pessimism About the Efficacy of Regulation	1582
CONCLUSION	1587
APPENDIX: WHY DO INEQUITABLE CROSS-SUBSIDIES EXIST?	1589
A. Shrouded Prices and Perfectly Competitive Markets	1589
B. Shrouded Prices and Imperfect Competition	1593
C. Extension: A World Without Price Shrouding.....	1595

INTRODUCTION

The Great Recession was the worst economic downturn in the United States since the Depression. More Americans lost their jobs than at any time since World War II.¹ More than two million businesses closed their doors because they could not make payroll.² Nearly eight million families lost their homes.³ The average American household lost one-third of its net worth.⁴

Outrage about the Recession stems from the following inequity: Although bank executives' risky bets caused the crisis, the lives of many consumers were ruined by it.⁵ President Obama acknowledged exactly this upon taking office in 2009: "For years, too many Wall Street executives made imprudent and dangerous decisions, seeking profits with too little regard for risk, too little regulatory scrutiny, and too little accountability."⁶

While the President could not undo the pain inflicted by the Recession, he promised policymakers would overhaul financial markets to better protect consumers going forward.⁷ As a result, a new Consumer Financial Protection Bureau (CFPB) was tasked with policing consumer finance markets. It would focus on preventing families from being steered into the risky subprime mortgages whose collapse had kickstarted a global recession. But it would also protect consumers more broadly from nefarious practices in product markets ranging from payday loans to consumer checking accounts and credit lending. The hope was for the

1. See Barack Obama, President Elect, Speech on the Economy, *N.Y. Times* (Jan. 8, 2009), <https://www.nytimes.com/2009/01/08/us/politics/08text-obama.html> [<https://perma.cc/ST22-WKA6>]; see also Chris Isidore, Job Loss: Worst in 34 Years, *CNN Money* (Feb. 6, 2009), https://money.cnn.com/2009/02/06/news/economy/jobs_january/index.htm [<https://perma.cc/CC7Z-V6HM>].

2. The Great Recession: Over but Not Gone?, Northwestern Inst. for Policy Research, <https://www.ipr.northwestern.edu/about/news/2014/IPR-research-Great-Recession-unemployment-foreclosures-safety-net-fertility-public-opinion.html> [<https://perma.cc/ED2T-KFQE>] (last visited July 27, 2019).

3. Kari Paul & Jacob Passy, A Decade After the Housing Crisis, Foreclosures Still Haunt Homeowners, *MarketWatch* (Sept. 30, 2018), <https://www.marketwatch.com/story/a-decade-after-the-housing-crisis-foreclosures-still-haunt-homeowners-2018-09-27> [<https://perma.cc/39T6-XGTJ>].

4. Colin Schultz, The Average American Household Lost a Third of Its Net Worth During the Recession, *Smithsonian.com* (July 29, 2014), <https://www.smithsonianmag.com/smart-news/average-american-household-lost-third-their-net-worth-during-recession-180952191/> [<https://perma.cc/5778-AQWR>].

5. Marilyn Geewax, Unhappy 10th Anniversary, Great Recession. You Still Hurt Us, *NPR* (Dec. 14, 2017), <https://www.npr.org/2017/12/14/570556990/unhappy-10th-anniversary-great-recession-you-still-hurt-us> [<https://perma.cc/FJQ9-CK3K>].

6. See Obama, *supra* note 1.

7. Kimberly Amadeo, Obama 2008 Economic Promises and Platform, *The Balance*, <https://www.thebalance.com/obama-2008-economic-promises-and-platform-3305774> [<https://perma.cc/QA9V-ERTK>] (last updated June 25, 2019).

CFPB to tilt the scales of power away from large, sophisticated financial institutions and in favor of consumers.

However, the institutions affected by the CFPB's oversight said changes would end up hurting, rather than helping, consumers. For example, in May 2010, Senator Dick Durbin cheered the passage of his namesake legislation, the "Durbin Amendment" (Durbin). Durbin caps debit interchange fees, which are the fees merchants pay card issuers to process electronic transactions.⁸ Senator Durbin proclaimed that "Wall Street reform is really about two things: holding big banks accountable for how they operate and empowering consumers to make good financial choices. Passage of this amendment is a win for the public on both fronts. . . . [S]mall businesses and their customers will be able to keep more of their own money."⁹

However, the large financial institutions that lost revenue because of Durbin warned that consumers would be harmed by its passage: "Who is going to pay for this? That Customer that gets that debit card for free," assured the CEO of TCF, a midsize Minnesota-based bank.¹⁰ Bank of America executives called Durbin a "windfall to large merchants" that would increase consumer costs.¹¹

Similarly, a year before Durbin, Congress passed the Credit Card Accountability Responsibility and Disclosure Act (CARD Act), limiting banks' ability to levy credit card penalty fees and hike interest rates. Consumer advocates cheered the reform: "Amidst the financial turmoil on Wall Street, today the House took steps to help those on Main Street This historic legislation will help working families"¹²

Yet the financial industry assured legislators this would not be the case. They argued that the CARD Act would instead increase the cost of credit for consumers and small businesses: In fact, Jamie Dimon, the

8. Press Release, Dick Durbin, Assistant Senate Majority Leader, U.S. Senate, Durbin Statement on His Debit Card Swipe Fee Amendment (May 13, 2010), <https://www.durbin.senate.gov/newsroom/press-releases/durbin-statement-on-his-debit-card-swipe-fee-amendment> [<https://perma.cc/2RL7-X54F>] [hereinafter Durbin, Statement on Swipe Fee Amendment].

9. *Id.*

10. Letter from Brian J. Hurd, Exec. Vice President, TCF Nat'l Bank, to Jennifer J. Johnson, Sec'y, Bd. of Governors of the Fed. Reserve Sys. (Feb. 18, 2011), https://www.federalreserve.gov/SECRS/2011/April/20110405/R-1404/R-1404_030411_68936_437488369604_1.pdf [<https://perma.cc/2HLK-DJ8L>].

11. Letter from Karl F. Kaufmann, Assoc. Gen. Counsel, Bank of Am., to Jennifer J. Johnson, Sec'y, Bd. of Governors of the Fed. Reserve Sys. (Feb. 22, 2011), https://www.federalreserve.gov/SECRS/2011/March/20110302/R-1404/R-1404_022211_67233_584174234336_1.pdf [<https://perma.cc/H57U-Y7BQ>].

12. Connie Prater, House Passes Credit Cardholders' Bill of Rights Bill, Creditcards.com (Sept. 23, 2008), <https://www.creditcards.com/credit-card-news/credit-cardholders-bill-rights-house-vote-pass-1282.php> [<https://perma.cc/ZQV4-E2LP>] (internal quotation marks omitted) (quoting Rep. Carolyn Maloney).

CEO of JPMorgan, warned that, in response, his bank would stop offering credit cards to 15% of its customers.¹³

And again, when the Federal Reserve Board (Federal Reserve or Board) proposed changes to the overdraft regime to limit banks' ability to levy overdraft fees, industry participants warned of dire consequences. "If this folly happens, we estimate that we will close 10–15% of our consumer accounts. Be careful what you wish, we serve these folks well," cautioned an executive at Bridge Community Bank.¹⁴

Who got the better of these debates? Did these sweeping regulations ultimately limit abusive bank practices or instead hamper industries and deprive consumers of beneficial financial products or services? A decade removed from the crisis, the time is ripe to examine the successes—and failures—of the consumer reform agenda. This Article relies on empirical evidence to evaluate postcrisis consumer financial regulation. The results are surprising and provide guidance to policymakers about how to design regulation and evaluate its efficacy.

This is a critical undertaking. More than a decade removed from the crisis, new risks are emerging in consumer finance markets: More than 50% of mortgages are now originated in the lightly-regulated shadow banking sector,¹⁵ student loan balances have exploded,¹⁶ and the subprime auto loan bubble appears on the verge of collapse.¹⁷ In their seminal 2008 work, Professor Oren Bar-Gill and then-Professor Elizabeth Warren called on policymakers to make credit "safer" by creating a new federal regulator, now known as the CFPB, with the authority and incentives to police consumer finance markets.¹⁸ As consumer advocates

13. Eileen AJ Connelly, *Mixed Blessing: Credit Card Reform May Shock Some*, Seattle Times (Feb. 22, 2010), <https://www.seattletimes.com/business/mixed-blessing-credit-card-reform-may-shock-some/> [<https://perma.cc/67C4-N7CU>].

14. Memorandum from Robert A. Steen to Bd. of Governors of Fed. Reserve Sys. (Mar. 25, 2010), https://www.federalreserve.gov/SECRS/2010/March/20100326/R-1343/R-1343_032510_32327_341354941882_1.pdf [<https://perma.cc/C97C-6MVG>].

15. See Michele Lerner, *The Mortgage Market Is Now Dominated by Non-Bank Lenders*, Wash. Post (Feb. 23, 2017), https://www.washingtonpost.com/realestate/the-mortgage-market-is-now-dominated-by-nonbank-lenders/2017/02/22/9c6bf5fc-d1f5-11e6-a783-cd3fa950f2fd_story.html (on file with the *Columbia Law Review*).

16. See Annie Nova, *For Some Students, What They Borrow Can End Up Being a Fraction of What They Wind Up Owning*, CNBC (June 7, 2018), <https://www.cnbc.com/2018/06/07/peoples-student-loan-balances-are-spiraling-out-of-control.html> [<https://perma.cc/7529-HLPN>].

17. See Cecile Gutscher, *Subprime Auto Debt Is Booming Even as Defaults Soar*, Bloomberg (Feb. 2, 2018), <https://www.bloomberg.com/news/articles/2018-02-02/nevermind-defaults-debt-backed-by-subprime-auto-loans-is-hot> (on file with the *Columbia Law Review*).

18. See Oren Bar-Gill & Elizabeth Warren, *Making Credit Safer*, 157 U. Pa. L. Rev. 1, 98–101 (2008) ("The failure of current attempts at regulation of credit-product safety prompts us to propose the creation of a new federal regulator—a Financial Product Safety Commission or a new consumer credit division within an existing agency (the [Federal Reserve Board] or [Federal Trade Commission]).").

wield this authority, the success of the reform agenda relies on heeding the lessons learned from the triumphs and failures of past regulatory interventions. Only then can we successfully course correct, where necessary, to best serve consumer interests.

This Article begins by analyzing three of the most important postcrisis consumer reforms: the Durbin Amendment affecting the debit market; the CARD Act concerning the credit market; and varied reforms to the overdraft market. It draws insights from big data, relying on a unique dataset of effective interchange rates for 120 industries in 40,000 zip codes in the United States (totaling more than 10 million observations); branch-level data on checking account fees reported weekly for 58,000 bank branches in the United States; and financial regulatory data reported quarterly by each of the 4,800 bank holding companies in the United States. This Article demonstrates that these three regulations have varied efficacy—two (overdraft reform and the CARD Act) benefit consumers, while one (the Durbin Amendment) exacerbates the market failures it should have corrected. It is surprising that similarly situated interventions have different impacts, and these findings refute prominent prior scholarship.

This Article then uses the empirical evidence to glean lessons for regulatory design. Unlike much of the literature, this Article does not assess a single intervention.¹⁹ Instead, it tests the efficacy of the broader consumer reform project by comparing the design and effectiveness of interventions in distinct markets. Based on this analysis, the Article offers explicit guidance for both how to regulate and how to analyze the incidence of regulation. These suggestions are threefold. First, regulators should target salience problems: Many consumers are incognizant of or ignore hidden prices—like the cost of overdrafting or late fees—and so end up paying more than they expect for financial products.²⁰ This is a market failure that well-designed regulation can solve. Second, regulators should heed the fact that our financial markets are regressive. As this

19. For analysis of the CARD Act, see generally Sumit Agarwal, Souphala Chomsisengphet, Neale Mahoney & Johannes Stroebel, *Regulating Consumer Financial Products: Evidence from Credit Cards*, 130 *Q.J. Econ.* 111 (2014) [hereinafter Agarwal et al., *Regulating Consumer Financial Products*]; Oren Bar-Gill & Ryan Bubba, *Credit Card Pricing: The CARD Act and Beyond*, 97 *Cornell L. Rev.* 967 (2012); Vikram Jambulapati & Joanna Stavins, *The Credit CARD Act of 2009: What Did Banks Do?*, 46 *J. Banking & Fin.* 21 (2014); Scott T. Nelson, *Private Information and Price Regulation in the US Credit Card Market* (July 2019) (unpublished manuscript), <https://economics.mit.edu/files/14225> [<https://perma.cc/E7ER-HJP5>] [hereinafter Nelson, *Private Information*]. For analysis of the Durbin Amendment, see generally Benjamin S. Kay, Mark D. Manuszak & Cindy M. Vojtech, *Competition and Complementarities in Retail Banking: Evidence from Debit Card Interchange Regulation*, 34 *J. Fin. Intermediation* 91 (2018); Vladimir Mukharlyamov & Natasha Sarin, *The Impact of the Durbin Amendment on Banks, Merchants, and Consumers* (Jan. 31, 2019) (unpublished manuscript), https://scholarship.law.upenn.edu/cgi/viewcontent.cgi?article=3048&context=faculty_scholarship [<https://perma.cc/6QUN-Y9BR>].

20. See *infra* section II.B.

Article illustrates, low-income consumers tend to pay higher prices than their higher-income counterparts.²¹ This is because wealthier consumers tend to be more sophisticated and have more access to the most attractive financial products.²² Well-designed regulation can decrease unfair cross-subsidization, though poorly designed regulation can exacerbate it. Finally, when analyzing regulation, policymakers and academics should focus on what banks do—not what they say. Financial institutions have every incentive to dissuade regulators by stating that consumers will be harmed, not helped, by intervention.²³ They repeat this dire warning each time lawmakers act, and as a result, many policymakers and academics believe regulation is futile.²⁴ The data show that regulation can work and that relying too much on banks' cautions will lead to mistaken pessimism about the regulatory project.²⁵

Part I of this Article begins with analysis of the Durbin Amendment, which capped debit interchange fees. Prior to Durbin, a merchant would typically pay around 2% of the value of a customer's debit transaction to their bank to cover the cost of processing that transaction.²⁶ Post-Durbin, these fees are capped at \$0.22.²⁷ Thus, pre-Durbin, a merchant paid \$2 to process a \$100 transaction, and post-Durbin, they pay only \$0.22, about one-tenth of the previous fee. As a result, banks lost—and merchants saved—\$6.5 billion annually.²⁸ The policy objective was for these merchant savings to pass through to consumers in the form of lower retail prices.²⁹ However, this Article is the first to show empirically that consumers were harmed, not helped, by the passage of this legislation. Banks respond to Durbin by increasing consumer account fees to recover a significant share of lost interchange revenue. And merchants in large part eat the gains from Durbin, failing to fully pass through cost savings

21. See *infra* section II.B.

22. See *infra* section II.B.

23. See *infra* section II.C.

24. See, e.g., Alfred E. Kahn, *Applications of Economics to an Imperfect World*, 69 *Am. Econ. Rev.*, May 1979, at 1, 11 (“The regulatory rule is: each time the dike springs a leak, plug it with one of your fingers; just as dynamic industry will perpetually find ways of opening new holes in the dike, so an ingenious regulator will never run out of fingers.”).

25. See *infra* sections II.C.1–2.

26. See, e.g., Durbin, *Statement on Swipe Fee Amendment*, *supra* note 8 (noting that at the time of the amendment's passage, Visa and MasterCard charged interchange fees of around 1–2% of the transaction amount).

27. See 12 C.F.R. § 235.3(b) (2019). To be precise, the fee consists of a \$0.21 cap plus 5 basis points times the value of the transaction, with a \$0.01 adjustment allowed to cover the implementation of antifraud measures. In practice, nearly all transactions are charged \$0.22. See *The Durbin Amendment*, Advocharge, <https://advocharge.com/the-durbin-amendment/> [<https://perma.cc/AND3-5P85>] (last visited Oct. 1, 2019) (“Essentially, the final cost is 5 basis points and \$.22 for normal debit card transactions.”).

28. See *infra* section I.A.3.

29. Margarete Burnette, *The Durbin Amendment Explained*, Nerdwallet, <https://www.nerdwallet.com/blog/banking/durbin-amendment-explained/> [<https://perma.cc/G4TB-QJ3Z>] (last updated Aug. 30, 2017).

to customers.³⁰ In fact, Durbin is regressive, because only low-income consumers bear new bank fees. Additionally, because Durbin caps debit—but not credit—interchange, banks evade its impact by encouraging greater use of unregulated credit cards, which traps consumers in expensive cycles of debt.³¹

The Article next considers the CARD Act, which, like Durbin, sought to decrease consumer costs. Prior to the CARD Act, banks increased credit card interest rates without warning and levied exorbitant penalty fees. As a result, credit was significantly more expensive—particularly for low-income consumers who are most often hit by penalty fees—than consumers anticipated. The CARD Act restricted how issuers price credit—for example, by requiring notice before increasing interest rates and by capping late fees.³² Unlike Durbin, the CARD Act achieved its intended effect: Consumers save around \$12 billion annually.³³ There is no evidence that issuers changed other aspects of credit card prices left unregulated by the CARD Act to compensate for losses in interest and penalty fee revenue.³⁴

Finally, this Article analyzes changes to the overdraft regime. In the decade preceding the financial crisis, overdraft fees became one of the fastest-growing sources of bank revenue. Consumers could effectively pay \$40 for their morning coffee (thanks to a \$35 overdraft fee) by using their debit cards without sufficient funds in their checking accounts. Postcrisis, regulators required that banks affirmatively opt in consumers to overdraft protection before levying overdraft fees. If a consumer is not opted in and tries to use a debit card to make a purchase, their bank will decline the transaction. As a result of this new default rule, the share of consumer accounts eligible for overdraft protection decreased by 84%.³⁵ Empirical analysis disproves the popular consensus among legal academics that the overdraft default rule fails to achieve its ends. Specifically, this Article shows that due to this intervention, banks lost 15% of their

30. The evidence on merchant response to Durbin is based on the gas station industry. The gas station industry is an ideal market to examine because pricing in the industry is local and involves only a few products. It is, of course, possible that this adjustment does not reflect price movements in other industries for which we lack data.

31. See *infra* section I.A.4.

32. See Credit Card Accountability Responsibility and Disclosure Act, Pub. L. No. 111-24, § 101, 123 Stat. 1734, 1735–36 (2009).

33. See *infra* section I.B.3.

34. See Bar-Gill & Bubb, *supra* note 19, at 999 (“[T]hrough our data, we saw significant reductions in two types of fees directly regulated by the CARD Act that provide a substantial source of revenue for credit card issuers . . . but no substantial increases in other credit card rates and fees to compensate for the consequent loss in fee revenue.”).

35. CFPB, CFPB Study of Overdraft Programs 29 (2013), https://files.consumerfinance.gov/f/201306_cfpb_whitepaper_overdraft-practices.pdf [<https://perma.cc/3N4B-EXW2>] [hereinafter CFPB, Study of Overdraft Programs] (finding that only 16.1% of accounts in a 2012 CFPB study affirmatively opted in for overdraft coverage).

precrisis overdraft revenue, and there is no evidence that banks offset these losses.³⁶

At first glance, these three interventions appear similar. They involve the same financial institutions, and each is a price regulation that decreases banks' fee revenue. In each intervention, regulators and academics voiced concerns about the possibility of regulatory "whack-a-mole"³⁷—that is, in response to well-intentioned interventions that reduce revenue, banks would adjust other rates and fees.³⁸ However, the data reveal that banks offset losses only from the interchange fee cap—not from decreases in credit card and overdraft revenue. Why?

One answer is *salience*. Many consumers are prone to well-documented behavioral limitations.³⁹ One such limitation is the tendency to focus on prominent ("salient") aspects of a price bundle—for example the cost of an airline ticket in bold, large letters on Expedia—but ignore aspects that are less clearly displayed (for example, the cost of checking a bag or changing that reservation). Firms have no incentive to compete to offer low nonsalient prices because most consumers ignore them. In fact, firms purposely charge *high* nonsalient prices, so they can offer *low* salient prices and attract the most customers. Consumer financial contracts have become increasingly complicated over time—the average credit card contract used to be one page long but now averages more than thirty pages.⁴⁰ Sophisticated banks charge low or no salient prices such as a 0% annual percentage rate (APR) or a checking account with a \$0 monthly fee. They tuck away high nonsalient fees deep in contracts that no one, not even the most sophisticated law professor among us, would ever read. The data reveal that when regulators restrict nonsalient fees—as did the CARD Act and overdraft reform—banks are unlikely to pass the costs of these interventions through to consumers.

As such, Part II of this Article begins with the first lesson for regulators: Policymakers should regulate nonsalient prices. The CARD Act and overdraft reform did just this: They can be understood as re-

36. See *infra* section II.A.

37. "Whack-a-mole" is an arcade game. Players use a mallet to hit moles back into their holes. When one mole disappears, another rises. The objective is to hit as many moles as possible in a certain period of time. Whack-a-Mole, Lexico, <https://www.lexico.com/en/definition/whack-a-mole> [<https://perma.cc/V5FP-KZJH>] (last visited July 25, 2019).

38. See Michael S. Barr, Sendhil Mullainathan & Eldar Shafir, The Case for Behaviorally Informed Regulation, *in* *New Perspectives on Regulation* 25, 50 (David Moss & John Cisternino eds., 2009) (voicing concern that regulation that reduces revenue from penalty fees would mean that other rates and fees would be adjusted to compensate, and there is little reason to believe that the adjustments would be in consumers' favor).

39. Behavioral economists focus on theoretically and empirically demonstrating human deviations from rational behavior. Psychologists Daniel Kahneman and Amos Tversky pioneered early work in this field. See generally Amos Tversky & Daniel Kahneman, Rational Choice and the Framing of Decisions, 59 *J. Bus.* S251–78 (1986) (discussing how the modern theory of decisionmaking is at risk).

40. Benjamin Sarlin, Elizabeth Warren Talks Bank Reform, *Daily Beast* (Apr. 21, 2010), <https://www.thedailybeast.com/elizabeth-warren-talks-bank-reform> [<https://perma.cc/TU27-4HAB>].

stricting banks' ability to hide fees on page twenty-six of that thirty-page contract. In light of these restrictions, banks faced a choice. To offset these losses, they would have had to raise salient prices (for instance, increase the introductory APR on page one of the credit card contract) and risk losing market share by increasing a price consumers pay attention to. JPMorgan is the largest lender in the country, and its credit card business contributes to its nearly \$100 billion⁴¹ in revenue—why risk alienating its customer base over relatively minor (\$750 million⁴²) CARD Act losses? JPMorgan—and other large financial institutions—did not adjust salient prices in response to regulation of nonsalient prices. The result is an increase in overall consumer welfare.

This Article also proposes a novel alternative to direct regulation of nonsalient prices: a “salience shock.” The approach is simple—many consumers ignore penalty fees because they are inattentive (for example, they do not realize they are about to overdraft) or overly optimistic (for instance, they do not believe they will ever be delinquent in repaying their credit card balances).⁴³ A timely “shock” that focuses their attention, like a notification immediately before overdrafting, will decrease the incidence of costly consumer mistakes. A recent reform in the United Kingdom provides evidence to support this view: Banks that give customers text-message alerts about low account balances find overdraft incidence declines by around 25%.⁴⁴

As each of the postcrisis interventions studied illustrates, consumer finance markets regularly feature cross-subsidies running from low-income consumers to their wealthy counterparts. The second lesson of this Article is that well-designed regulation should address these cross-subsidies.

This is true in markets where salience problems exist. Hidden fees are most often borne by low-income consumers: Nine percent of bank customers—disproportionately low income and less educated—are responsible for 84% of banks' overdraft income.⁴⁵ Additionally, lower-income customers are less likely to pay their credit card bills on time,⁴⁶

41. \$750 million is approximately 3% of JP Morgan's 2017 net revenue (approximately \$25 billion after accounting for expenses)—certainly not insignificant, but not a large contributor. See JPMorgan Chase & Co., Annual Report 2017, at 3, <https://www.jpmorganchase.com/corporate/investor-relations/document/annualreport-2017.pdf> [<https://perma.cc/5H7A-JTHF>].

42. Tomoeh Murakami Tse, JP Morgan's Dimon Says New Laws Have Hurt His Company, *Wash. Post* (Apr. 2, 2010), <http://www.washingtonpost.com/wp-dyn/content/article/2010/04/01/AR2010040103684.html> (on file with the *Columbia Law Review*).

43. See *infra* note 258 and accompanying text.

44. Press Release, Competition & Mkts. Auth., New Overdraft Alerts as CMA Banking Rules Come into Force (Feb. 2, 2018), <https://www.gov.uk/government/news/new-overdraft-alerts-as-cma-banking-rules-come-into-force> [<https://perma.cc/RUX2-X4BZ>].

45. See CFPB, Study of Overdraft Programs, *supra* note 35, at 18.

46. Gerri Detweiler, How Rich People Use Credit Cards Differently from the Rest of Us, *Credit.com* (Feb. 18, 2015), <https://www.businessinsider.com/how-rich-people-use-credit-cards-differently-than-the-rest-of-us-2015-2> [<https://perma.cc/HA8Y-5555>].

and the high fees they pay subsidize cheaper credit for the rest of the population.

But cross-subsidization also exists in financial markets without salience problems, because wealthier customers have access to more attractive products. Consumers all pay the same price for retail goods, even though some transact with cash (no processing fee for merchants) and others use rewards cards (3% to 5% processing fee for merchants). Financial firms benefit from high card processing fees, but so do consumers who transact with these cards: A wealthy customer who uses a platinum American Express to buy a new pair of \$100 sneakers gets airline miles and cash back.⁴⁷ If the value of those rewards totals \$2 (such as a 2% cash back), they effectively pay only \$98 for new shoes. A customer who uses cash pays the full \$100. This may seem miniscule, but it scales quickly: On average, card-using households receive nearly \$1,200 from cash users each year.⁴⁸ This is a regressive transfer: Your airline miles are subsidized by low-income consumers who do not have access to credit.

The existence of these cross-subsidies justifies regulatory intervention. The CFPB has broad power to prohibit abusive or unfair bank practices that the consumer cannot reasonably avoid.⁴⁹ The payments market is a prime candidate for CFPB intervention, because one group of consumers (low income) pays higher prices and cannot reasonably avoid these higher prices without access to rewards cards. Curbing banks' loyalty rewards programs will decrease these cross-subsidies. A less radical alternative is to allow merchants to price discriminate—for example, by charging higher prices to the wealthy, who pay with rewards cards with high processing fees; or at the very least, by allowing merchants to nudge consumers toward using payment instruments with lower processing fees.⁵⁰

Importantly, when policymakers debate regulation they often ask whether it will increase overall consumer welfare. This focus is misplaced. Removing cross-subsidies in consumer finance markets may not help all consumers, because the wealthy benefit from the status quo. However,

47. See *infra* section II.B.

48. Scott Schuh, Oz Shy & Joanna Stavins, *Who Gains and Who Loses from Credit Card Payments? Theory and Calibrations 3* (Fed. Reserve Bank of Bos., Pub. Pol'y Discussion Papers No. 10-03, 2010).

49. See 12 U.S.C. § 5511(b)(2) (2012) (“The Bureau is authorized to exercise its authorities under Federal consumer financial law for the purposes of ensuring that, with respect to consumer financial products and services . . . consumers are protected from unfair, deceptive, or abusive acts and practices and from discrimination . . .”).

50. See generally Natasha Sarin, *What's in Your Wallet (and What Should the Law Do About It?)*, 87 U. Chi. L. Rev. (forthcoming 2020) (on file with the *Columbia Law Review*) (arguing that given recent judicial barriers to merchant price discrimination, it is appropriate for the CFPB to use its authority to curtail “unfair, abusive, and deceptive practices” to facilitate merchants' encouraging consumers to use payment instruments with lower interchange fees).

regulation that creates a more equitable financial system and increases the welfare of the most financially fragile is desirable.⁵¹

Finally, the empirical analysis demonstrates that policymakers and academics should heed what banks do in response to regulation, not what they say they will do. Every time regulators act, affected institutions claim that the result will be harm, not benefit, for consumers. These warnings lead consumer advocates to be skeptical of the desirability of what we now know are welfare-enhancing reforms, like restricting credit card late fees.⁵² They also lead academics to proclaim that “light-touch” regulatory approaches are futile, because sophisticated institutions will always pass along the costs of regulation to consumers.⁵³ Instead of interventions that restrict markets but allow consumers to freely choose between diverse products, these critics advocate for more heavy-handed approaches, like mandates banning certain financial products.⁵⁴

This Article challenges the conventional wisdom about the inevitable failure of light-touch regulation. Prominent legal scholarship by Professor Lauren Willis and Professors Ryan Bubb and Richard Pildes question the effectiveness of behavioral policies, like the new opt-in default rule for overdraft protection. They suggest that since firms rationally optimize and consumers do not, light-touch regulation will not be effective, because firms will rationally offset it and default consumers into the choice that is most profitable for the firm. In the case of overdraft, this means that firms will work to opt-in consumers.⁵⁵

There are theoretical reasons to believe that firms will offset regulation in the manner these authors describe.⁵⁶ Firms themselves say

51. See *infra* section II.B.2.

52. See Barr et al., *supra* note 38, at 50.

53. See generally Ryan Bubb & Richard H. Pildes, *How Behavioral Economics Trims Its Sails and Why*, 127 *Harv. L. Rev.* 1593 (2013). This Article adopts the term “light-touch” from Professors Ryan Bubb and Richard Pildes to refer to regulatory approaches that preserve a role for consumer choice. To understand the difference between “light-touch” and more heavy-handed regulatory approaches, consider the difference between the new overdraft opt-in rules (which change the default but leave the market unchanged for consumers who like overdraft as a product), see JPMorgan Chase & Co., *supra* note 41, and the Bubb and Pildes proposal to ban overdraft as a product (which would overhaul the overdraft market, even for consumers who would prefer it unchanged), see Bubb & Pildes, *supra*, at 1657–58. While the new opt-in rules are an example of a light-touch regulation, both the CARD Act and Durbin are more heavy handed.

54. Bubb & Pildes, *supra* note 53, at 1658 (“Policy can offer more . . . than just disclosure and defaults, and the unwillingness to seriously analyze regulatory tools that go beyond nudges limits the role BLE [behavioral law and economics] should be playing in fashioning welfare-improving interventions. To illustrate, we consider two policy tools . . . : regulating products and reshaping firm incentives.”).

55. See Bubb & Pildes, *supra* note 53, at 1657. See generally Lauren E. Willis, *When Nudges Fail: Slippery Defaults*, 80 *U. Chi. L. Rev.* 1155 (2013).

56. See Sumit Agarwal, Souphala Chomsisengphet, Neale Mahoney & Johannes Stroebel, *A Simple Framework for Estimating Consumer Benefits from Regulating Hidden Fees*, *J.L. & Econ.* 5239, 5244–50 (2014) (providing a simple theoretical model that

they will offset regulation. However, the magnitude of this offset—and thus the efficacy of intervention—is ultimately an empirical question and one this Article undertakes with surprising results. Specifically, the data reveal that the new overdraft default rules are a resounding success, not a failure as previously believed. Despite assumptions about how banks will respond—based not unreasonably on how they say they will respond—most financial institutions do not aggressively opt-in consumers but rather move away from overdraft as a product.⁵⁷

The implications are significant. Past authors cite the new overdraft default rules as a canonical example of how behavioral law and economics approaches do not deliver for consumers.⁵⁸ However, the new opt-in regime *does* achieve its ends and *does* help consumers. This case is a paradigmatic example of how behavioral policies work, not an illustration of their limitations. Fortunately the existence of a power imbalance in the consumer–bank relationship does not doom all efforts at taming these markets. The aggressiveness with which financial institutions respond to regulation varies depending on market particulars, and only by following the data can we glean accurate insights about regulation.

The remainder of this Article is organized as follows. Part I describes three of the most important postcrisis consumer financial reforms—in the debit, credit, and overdraft markets—detailing the rationale for regulatory intervention and using hand-collected data to present novel empirical evidence on the impact of these reforms. Armed with this evidence, Part II then elaborates on several lessons for policymakers.

I. POSTCRISIS INTERVENTIONS

In the wake of the Recession, the financial sector underwent significant regulatory changes, many of which sought to tame consumer finance markets. Three of these changes—implemented through Durbin, the CARD Act, and amendments to Regulation E that changed the overdraft default rules—were price regulations aimed at decreasing banks' fee revenue and increasing consumer savings. This Part considers the efficacy of each intervention with novel empirical analysis using data from every bank and every zip code in the United States.

A. *The Durbin Amendment*

1. *The Policy Problem.* — The payment card system is a two-sided market, with cards demanded both by cardholders who use them as a means of purchase and merchants who accept them as payment for

illustrates that in a perfectly competitive market, banks will fully offset regulatory interventions like the CARD Act).

57. See *infra* section I.C.3.

58. See Willis, *supra* note 55, at 1181–85.

goods.⁵⁹ An interchange fee results from a complex series of transactions,⁶⁰ but it can be thought of as simply the processing fee a customer's bank collects from a merchant following a card transaction.⁶¹

The two-sided nature of these markets means card networks must choose prices that encourage adoption by both sides of the market—cards that merchants do not accept will not generate interchange revenue and neither will cards that merchants accept but consumers do not use.⁶² This two-sidedness, at least conceptually, discourages card networks from charging interchange fees that are too high; interchange fees above competitive levels will discourage merchants from accepting expensive cards and encourage the entry of lower-cost competitors.⁶³

Even so, historically, interchange rates have been challenged on antitrust grounds, with the earliest example being *National Bancard Corp. (NaBanco) v. Visa USA, Inc.*⁶⁴ This case involved a dispute between Visa and NaBanco, a third-party processor of merchant card transactions, over the legality of interchange fees.⁶⁵ NaBanco's business model relied on it competing with Visa member banks to process electronic transactions for merchants.⁶⁶ NaBanco struggled to compete with Visa member banks that could afford to offer lower rates to merchants because Visa gave “on-us” transactions (where customers and merchants banked with the same institution) a discount.⁶⁷ This case established the legality of interchange fees. The court concluded that this fee arrangement was “pro-competitive” and no less-restrictive alternative existed to allow for the distribution of costs associated with payment transactions.⁶⁸

Importantly, as discussed below, these fees were always salient to the merchants that bear them. As a result, *NaBanco* was followed by a near-

59. Benjamin Klein, Andres V. Lerner, Kevin M. Murphy & Lacey L. Plache, Competition in Two-Sided Markets: The Antitrust Economics of Payment Card Interchange Fees, 73 *Antitrust L.J.* 571, 571 (2006).

60. See Barbara Pacheco & Richard Sullivan, Interchange Fees in Credit and Debit Card Markets: What Role for Public Authorities? A Summary of a Federal Reserve Bank of Kansas City Conference, 2006 *Econ. Rev.* 87, 92–93 (providing an introduction to the mechanics of interchange fees).

61. *Id.* at 92. In general, this processing fee varies depending on the card used: “[C]redit cards carry the highest interchange fee, PIN debit the lowest, with signature debit in between.” *Id.* at 93.

62. Jean-Charles Rochet & Jean Tirole, An Economic Analysis of the Determination of Interchange Fees in Payment Card Systems, 2 *Rev. Network Econ.* 69, 72 (2003), <https://pdfs.semanticscholar.org/f850/0560f04ad3a1d0abba4db4932f71ba3fa1c6.pdf> [<https://perma.cc/AUZ4-LN5T>].

63. *Id.*

64. 596 F. Supp. 1231 (S.D. Fla. 1984), *aff'd*, 779 F.2d 592 (11th Cir. 1986) (finding interchange fee arrangements more procompetitive than anticompetitive).

65. *Id.* at 1239.

66. *Id.* at 1240.

67. *Id.*

68. *Id.* at 1265.

constant stream of antitrust litigation⁶⁹ by merchants upset at high interchange costs and alleging price-fixing by Visa and Mastercard, which together controlled 71% of the payment card market in 2008.⁷⁰ Merchants have successfully challenged various card-network practices as anticompetitive. For example, exclusivity agreements (forbidding banks from issuing cards from other networks if they issue cards from Visa or MasterCard) and “Honor-All-Cards” terms (contractual provisions that require that merchants who accept basic cards also accept high-price rewards cards issued by the same network) were deemed unlawful.⁷¹ These changes decreased market frictions and encouraged the emergence of new competitors like American Express and Discover.

Despite increased competitive pressure, in the decade leading up to the crisis, card networks’ revenue from interchange expense *increased* rather than *decreased*, due to the growth in electronic payments and the introduction of rewards cards with high processing fees.⁷² As a result, interchange expense became even more significant for merchants, often their second-highest cost of operating after labor.⁷³ Exploding interchange expense prompted calls for regulatory intervention.⁷⁴

2. *Regulatory Approach to Solving the Problem.* — Section 1075 of the Dodd–Frank Act⁷⁵ was introduced by Senator Durbin and is colloquially known as the “Durbin Amendment.” In its final form, it required the Federal Reserve to establish rules ensuring “reasonable and proportional” debit interchange fees that would decrease merchant costs

69. See, e.g., *Kendall v. Visa U.S.A., Inc.*, 518 F.3d 1042, 1045 (9th Cir. 2008) (“Appellants sued appellees under Section 1 of the Sherman Act, 15 U.S.C. § 1, and Section 16 of the Clayton Act, 15 U.S.C. § 26, for antitrust violations, alleging appellees conspired with each other to set the fees charged to merchants, such as appellants, for payment of credit card sales.”); *Wal-Mart Stores, Inc. v. Visa U.S.A., Inc.*, 396 F.3d 96, 101 (2d Cir. 2005) (explaining that merchants sought damages for alleged violations of the Sherman Act that resulted in plaintiffs incurring “supra-competitive ‘interchange fees’” for debit and credit transactions from 1992 to 2003); *United States v. Visa U.S.A., Inc.*, 344 F.3d 229, 234 (2d Cir. 2003) (“The complaint charged that MasterCard and Visa U.S.A., which are organized as joint ventures owned by their member banking institutions, conspired to restrain trade”); see also *Retailers Sue Visa over Fees*, L.A. Times (July 16, 2005), <https://www.latimes.com/archives/la-xpm-2005-jul-16-fi-visa16-story.html> [<https://perma.cc/U7LL-AXCF>]. For a full description of legal challenges to interchange fees, see U.S. Gov’t Accountability Office, GAO-10-45, *Rising Interchange Fees Have Increased Costs for Merchants, but Options for Reducing Fees Pose Challenges* 40–42 (2009).

70. U.S. Gov’t Accountability Office, *supra* note 69, at 19.

71. See *Wal-Mart*, 396 F.3d at 101, 103 (affirming a settlement that required the cessation of Visa and Mastercard’s “Honor-All-Cards” policy); *United States v. Visa U.S.A., Inc.*, 344 F.3d at 24 (finding exclusivity agreements unlawful).

72. U.S. Gov’t Accountability Office, *supra* note 69, at 23.

73. Paul Gackle, *The Fight over Interchange Fees*, Frontline (Nov. 24, 2009), <https://www.pbs.org/wgbh/pages/frontline/creditcards/themes/interchange.html> [<https://perma.cc/KQJ8-ESGJ>].

74. Pacheco & Sullivan, *supra* note 60, at 91.

75. Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 1075, 124 Stat. 1376, 2068–74 (2010) (codified at 15 U.S.C. §1693o-2 (2012)).

and result in lower consumer prices.⁷⁶ The amendment preserved an exception for small issuers (with less than \$10 billion in assets).⁷⁷ Because of its late introduction to Dodd–Frank in May 2010, Durbin was passed without hearings or debate, and many took issue with the speed of its passage.⁷⁸ Critics also pointed to the difficulties of prior interchange caps; for example, those implemented in Australia resulted in bank fee increases to recover lost revenue.⁷⁹

In December 2010, the Federal Reserve proposed a rule implementing Durbin: a \$0.12 cap per debit transaction.⁸⁰ The financial services industry was outraged; in fact, one bank even challenged the

76. See 15 U.S.C. § 1693o-2(a)(1)–(2). For this work, I focus on Durbin’s interchange cap. Further work remains to be done on the consequences of other aspects of the amendment, for example, the exclusivity and routing restrictions, which halved the volume for Visa’s pin-debit payment processor, Interlink, causing Visa to levy a network fee to encourage routing through Interlink. See Interlink Loses More than Half Its Volume as Durbin Routing Provisions Take Effect, Dig. Transactions (July 25, 2012), <https://www.digitaltransactions.net/interlink-loses-more-than-half-its-volume-as-durbin-routing-provisions-take-effect> [<https://perma.cc/PL9J-MY8W>]; Ursula Librizzi, Visa Increasing Fixed Acquirer Network Fee (FANF) Rates, Payjunction Blog (Dec. 21, 2017), <https://blog.payjunction.com/visa-fixed-acquirer-network-fee> [<https://perma.cc/W587-NRMH>].

77. 15 U.S.C. § 1693o-2(a)(6).

78. The President of the American Bankers Association called the Durbin Amendment “11th hour” legislation that “hand[ed] one industry a victory without considering the unintended consequences of the government second-guessing the market.” Rob Nichols, Opinion, The Durbin Amendment: A Costly Price Control Experiment, Hill (June 27, 2016), <http://thehill.com/blogs/congress-blog/economy-budget/284842-the-durbin-amendment-a-costly-price-control-experiment> [<https://perma.cc/HPN8-W68S>]. An opinion piece even attacked Senator Durbin for his championing of interchange legislation, noting that one of the largest beneficiaries, Wal-Mart, announced its intention to open stores in the Chicago area (which Senator Durbin represents) and donated \$20 million to Illinois charities on the eve of a key vote on the measure. See Stephen Moore, Opinion, Everyday Low Politics, Wall St. J., <https://www.wsj.com/articles/SB10001424052748703571704575340951256767996> (on file with the *Columbia Law Review*) (last updated July 2, 2010); see also Mike Mercer, Opinion, Senators Must Hear from Consumers, Savannah Morning News (June 6, 2010), <https://www.savannahnow.com/column/2011-06-06/mercerc-senators-must-hear-consumers> [<https://perma.cc/JY95-Q8A9>] (supporting legislation that would delay the implementation of the Durbin Amendment to allow for public hearings).

79. See, e.g., Howard Chang, David S. Evans & Daniel D. Garcia Swartz, The Effect of Regulatory Intervention in Two-Sided Markets: An Assessment of Interchange-Fee Capping in Australia, 4 *Rev. Network Econ.* 328, 337–41 (2005) (noting that banks increased card fees to recover lost interchange fee revenues). Note though that this assessment of the Australian experience is not shared by all observers. See Joseph Farrell, Assessing Australia Interchange Regulation: Comments on Chang, Evans and Garcia Swartz, 4 *Rev. Network Econ.* 1, 1–5 (2005) (arguing that Chang et al., *supra*, suffers from limited and noisy data and that the “correct reading” is “so far, the data doesn’t show much”).

80. Press Release, Bd. of Governors of the Fed. Reserve Sys., Federal Reserve Requests Comment on a Proposed Rule to Establish Debit Card Interchange Fee Standards and Prohibit Network Exclusivity Arrangements and Routing Restrictions (Dec. 16, 2010), <https://www.federalreserve.gov/newsevents/pressreleases/bcreg20101216a.htm> [<https://perma.cc/LRX8-A2U3>].

constitutionality of Durbin, arguing that the regulation forced banks to offer debit services at a price below cost.⁸¹ Regulators voiced concern as well, suggesting that the small-issuer exemption would fail in practice because networks would decrease interchange rates for large and small issuers alike rather than vary rates by issuer size.⁸²

The Federal Reserve's final rule raised the debit interchange cap to \$0.22 plus five basis points times the total value of the transaction. Importantly, credit card interchange fees were left unregulated. This final rule prompted yet another constitutional challenge, this time by a coalition of merchants angered by the Board's decision to raise the fee cap from its initial proposal.⁸³ The Supreme Court declined to hear the case, and the cap remains.⁸⁴

3. *Impact of Regulatory Intervention.* — Considering the effect of Durbin on banks and merchants can help us understand its impact on overall consumer welfare and help inform regulation of this market and of two-sided platforms more generally.

To study how banks responded to Durbin, I rely on data from a variety of sources.⁸⁵ Specifically, I look to bank financial statements to see how bank revenue changes following Durbin's enactment (Figure 1). I then use data from RateWatch, which surveys bank branches weekly on their fee-setting practices. These data allow us to examine how bank checking account prices change in response to Durbin (Figures 2 and 3). I next use daily gas station prices to see how merchants responded to

81. TCF lost in district court in South Dakota and lost its appeal in the Eighth Circuit. *TCF Nat'l Bank v. Bernanke* (TCF I), No. CIV 10-4149, 2011 U.S. Dist. LEXIS 45059 (D.S.D. Apr. 25, 2011), *aff'd*, 643 F.3d 1158 (8th Cir. 2011).

82. Both Ben Bernanke, former Chairman of the Federal Reserve, and Sheila Bair, former Chair of the Federal Deposit Insurance Corporation (FDIC), voiced these concerns. See Evan Weinberger, *Bernanke Questions Small Bank Swipe Fee Exemption*, Law360 (Feb. 17, 2011), <https://www.law360.com/articles/225275/bernanke-questions-small-bank-swipe-fee-exemption> (on file with the *Columbia Law Review*); see also Elec. Payments Coal., *On the Eve of Implementation, Fed Chairman Bernanke and FDIC Chairman Bair Still "Concerned" that Debit Card Rule Exemption for Small Financial Institutions Won't Work*, PR Newswire (May 12, 2011), <https://www.prnewswire.com/news-releases/on-the-eve-of-implementation-fed-chairman-bernanke-and-fdic-chairman-bair-still-concerned-that-debit-card-rule-exemption-for-small-financial-institutions-wont-work-121734093.html> (on file with the *Columbia Law Review*). In response, an amendment was offered to delay the implementation of Durbin until an FDIC study ascertaining its impact on community banks was completed. This bill failed by only six votes. Alexander Bolton, *Senate Rejects Delay of Debit-Fee Regulations, Ending K Street Battle* (June 9, 2011), <https://thehill.com/blogs/floor-action/senate/165411-senate-rejects-delay-of-debit-card-regulations-ending-k-street-battle-of-2011> [<https://perma.cc/3VYM-2KWX>].

83. *NACS v. Bd. of Governors of the Fed. Reserve Sys.*, 746 F.3d 474 (D.C. Cir. 2014), *cert. denied*, 135 S. Ct. 1170 (2015).

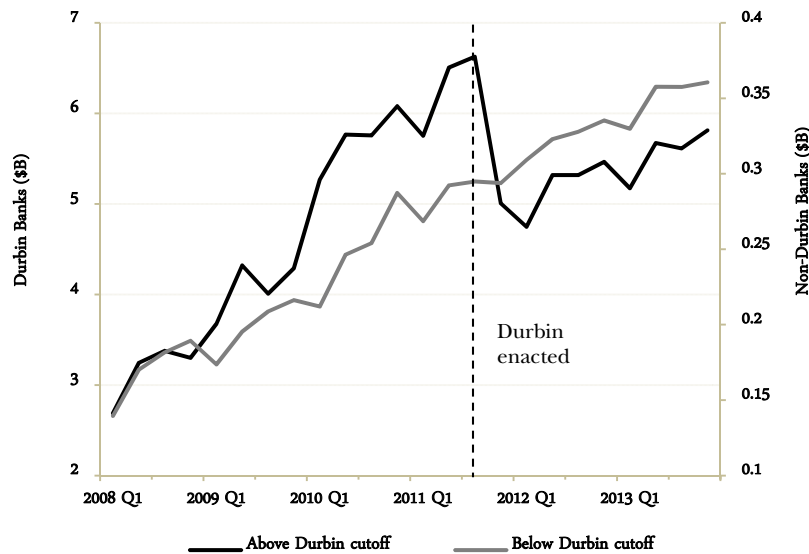
84. *Id.*

85. The primary empirical results on the Durbin Amendment were developed in joint work with Vladimir Mukharlyamov. See Vladimir Mukharlyamov & Natasha Sarin, *Price Regulation in Two-Sided Markets: Empirical Evidence from Debit Cards* (July 2019) (unpublished working paper) (on file with the *Columbia Law Review*) [hereinafter Mukharlyamov & Sarin, *Price Regulation*].

Durbin (Figure 4). I am also able to observe how credit and debit usage changes in response to Durbin with data from the annual Nielsen Report (Figure 5).

a. *Bank impact.* — Interchange income dropped instantaneously after Durbin. As Figure 1 shows, the decrease is concentrated in banks above the \$10 billion threshold, suggesting that large issuers bore the brunt of Durbin, as intended. Losses for banks above the Durbin threshold total approximately \$6.5 billion per year, a 25% decrease in interchange revenue.⁸⁶

FIGURE 1: INTERCHANGE FEES⁸⁷



Decreasing banks' interchange revenue was, of course, Durbin's purpose. However, banks warned that they would be forced to recover lost revenue by increasing other consumer fees.⁸⁸ Not surprisingly, many large banks (Bank of America, JPMorgan Chase, Suntrust, and Regions Financial) initially proposed a fee on debit purchases to recoup Durbin losses: \$5 every month consumers used their debit cards as a means of purchase. This fee was abandoned due to consumer outrage. A bank con-

86. This estimate understates bank losses because banks report interchange revenue only if it constitutes more than 3% of noninterest income. Ten percent of banks above the Durbin threshold that reported interchange income in Q3 2011 no longer reported it in Q4 2011. See *id.* at 11–13.

87. This chart was prepared to illustrate pre- and post-Durbin trends in interchange fees for the banks above the \$10 billion asset threshold relative to banks below the threshold. The dataset relied on is the bank regulatory “Call Reports” that are filed quarterly by financial institutions. See *id.* (explaining the dataset in question).

88. Comments to the Federal Reserve's proposed rulemaking contain several such cautions by banks. See, e.g., Kaufmann, *supra* note 11; see also Hurd, *supra* note 10.

sultant suggested that the result would be a less conspicuous increase in fees: Banks “are going to have to hide the fees and the customers will still have to pay for them.”⁸⁹

In practice, this is exactly what happened. Figures 2 and 3 below show the impact of Durbin on free checking and monthly fees associated with bank checking accounts. Post-Durbin, the availability of free checking accounts decreased by more than 40 percentage points for covered issuers: Said another way, in the pre-Durbin period, nearly 60% of large banks offered free checking; post-Durbin, this share fell to below 20%. In contrast, checking account fees more than doubled, from less than \$4 to more than \$7, for Durbin banks. Significantly, these increases are not related to general trends in banking—there is neither an equivalent decrease in free checking nor an increase in maintenance fees for banks below the Durbin threshold. In fact, banks recovered much of their lost interchange revenue by increasing consumer fees.⁹⁰

The increase in fees is borne primarily by low-income customers because monthly maintenance fees are waived for customers above a certain minimum threshold in their checking accounts.⁹¹ One unintended consequence of Durbin is that higher fees priced some consumers out of the market and resulted in their using more expensive banking replacements such as check-cashing and payday-lending facilities.⁹² In the most

89. Tara Siegel Bernard, *In Retreat, Bank of America Cancels Debit Card Fees*, N.Y. Times (Nov. 1, 2011), <http://www.nytimes.com/2011/11/02/business/bank-of-america-drops-plan-for-debit-card-fee.html> [<https://perma.cc/NWP5-MY54>].

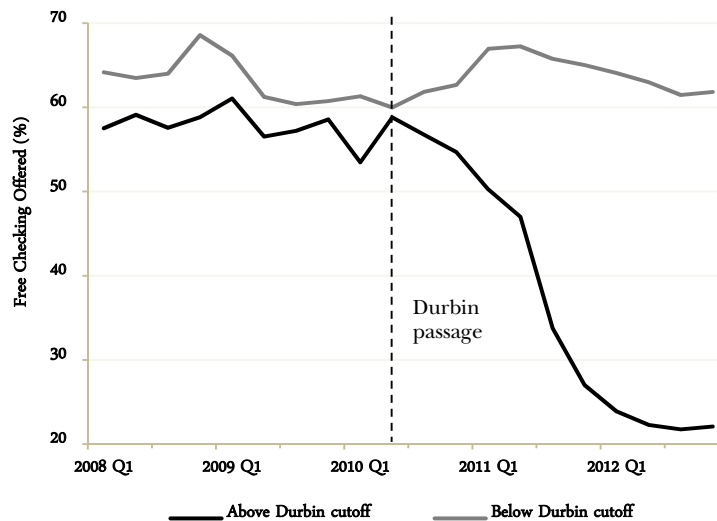
90. See Mukharlyamov & Sarin, *Price Regulation*, *supra* note 85, at 24, 36 (“Overall, banks recover around 40% of their losses from Durbin through higher account fees.”). These estimates are directionally consistent with another empirical study that considers bank responses to the Durbin Amendment. See Benjamin S. Kay, Mark D. Manuszak & Cindy M. Vojtech, *Bank Profitability and Debit Card Interchange Regulation: Bank Responses to the Durbin Amendment* (Bd. of Governors of the Fed. Reserve Sys. Fin. & Econ. Discussion Series, Paper No. 77, 2014).

91. See, e.g., Todd J. Zywicki, Geoffrey A. Manne & Julian Morris, *Unreasonable and Disproportionate: How the Durbin Amendment Harms Poorer Americans and Small Businesses* 11–12 (2017), http://laweconcenter.org/images/articles/icle-durbin_update_2017_final.pdf [<https://perma.cc/6LTD-QD7K>]. Pre-Durbin, the minimum deposit threshold averaged \$110, but Durbin banks raised this by over 550%, to \$720. See *id.* Usually, maintenance fees are levied if a customer does not maintain a minimum balance in their account. See generally Justin Song, *Checking Account Fees: How Much Are They and How Can They Be Waived?*, Value Penguin, <https://www.valuepenguin.com/banking/checking-account-fees> [<https://perma.cc/W853-2GHW>] (last visited Aug. 15, 2019) (detailing the minimum deposits and fees of various checking account options).

92. Vitaly Bord provides suggestive evidence for this result, albeit in a different setting. He finds that an increase in bank fees (stemming from mergers) leads to closures of consumer checking accounts and a greater use of payday lending. Vitaly M. Bord, *Bank Consolidation and Financial Inclusion: The Adverse Effects of Bank Mergers on Depositors* 3, 47 (Dec. 1, 2018) (unpublished manuscript), https://scholar.harvard.edu/files/vbord/files/vbord_-_bank_consolidation_and_financial_inclusion_full.pdf [<https://perma.cc/CWD4-LXRX>]. The biannual FDIC Survey of the Unbanked provides additional evidence: The share of survey respondents who ascribe their lack of a bank account to

recent FDIC Survey of Unbanked and Underbanked Households, almost 30% of respondents who previously had a bank account reported that they became unbanked because account fees were too high and unpredictable.⁹³

FIGURE 2: FREE CHECKING OFFERED (%), DURBIN VS. NON-DURBIN BANKS⁹⁴

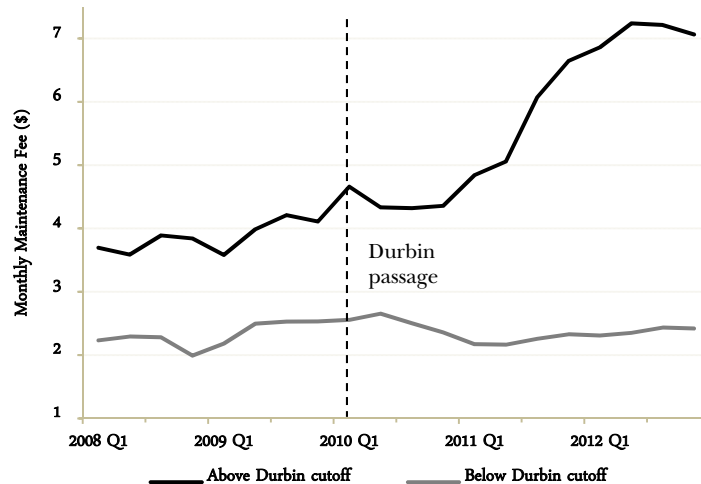


high account fees more than doubled between 2011 and 2013, from 5.4% to 13.4%. See FDIC, 2013 National Survey of Unbanked and Underbanked Households: Executive Summary 6 fig.ES3 (2014), https://economicinclusion.gov/surveys/2013household/documents/2013_FDIC_Unbanked_Underbanked_HH_Survey_ExecSumm.pdf [<https://perma.cc/9JQG-88NM>]; FDIC, 2011 FDIC National Survey of Unbanked and Underbanked Households 69 (2012), https://www.fdic.gov/householdsurvey/2012_unbankedreport.pdf [<https://perma.cc/7SHB-5FFK>].

93. FDIC, 2017 FDIC National Survey of Unbanked and Underbanked Households: Appendix Tables 29 (2018), <https://www.fdic.gov/householdsurvey/2017/2017appendix.pdf> [<https://perma.cc/SC3D-JN6L>] [hereinafter FDIC, Survey of Unbanked and Underbanked Households]. This growth in the unbanked and underbanked population has drawn attention and necessitates further study. A recent documentary, *Spent*, chronicles the difficulties faced by nearly 70 million American families without access to the traditional financial sector. *Spent: Looking for Change* (The Young Turks 2014); see also Michael S. Barr, *Banking the Poor*, 21 *Yale J. on Reg.* 121, 177–84 (2004) (discussing barriers to banking for low-income families).

94. This chart was prepared to illustrate pre- and post-Durbin trends in free checking for banks above the \$10 billion asset threshold relative to banks below the threshold. The dataset relied on is RateWatch, which surveys banks weekly to learn their fee-setting practices. See About Us, RateWatch, <https://www.rate-watch.com/about-us> [<https://perma.cc/H3TN-WG4V>] (last visited Aug. 24, 2019). Free checking is defined as a checking account with a \$0 monthly maintenance fee, regardless of the size of the account. Mukharlyamov & Sarin, *Price Regulation*, *supra* note 85, at 13–14; see also Claes Bell, *Smart Banking: ‘Free’ Checking Not Always Free*, *Bankrate* (Jan. 20, 2015), <https://www.bankrate.com/banking/checking/smart-banking-free-checking-not-always-free/> [<https://perma.cc/47UD-VMMR>] (noting that the definition of a “free checking” account varies from bank to bank).

FIGURE 3: MONTHLY MAINTENANCE FEE (\$), DURBIN VS. NON-DURBIN BANKS⁹⁵



b. *Merchant Impact.* — Advocates of Durbin asserted that it would “enable small businesses and merchants to lower their costs and provide discounts for their customers.”⁹⁶ As a result of Durbin, merchant interchange fees decreased by \$6.5 billion annually.⁹⁷ In a perfectly competitive world, these merchant savings would be passed through to consumers in the form of lower prices. However, many were skeptical that consumers would see any benefit: Former Senator Mark Pryor suggested that “the consumer probably ends up paying for [the interchange regulation] They’ll get you. You’re going to pay for it one way or another.”⁹⁸

95. This chart was prepared to illustrate pre- and post-Durbin trends in monthly maintenance fees for banks above the \$10 billion asset threshold relative to banks below the threshold. The dataset relied on is RateWatch, which surveys banks weekly to learn their fee-setting practices. See *supra* note 94 and accompanying text.

96. Press Release, Senator Dick Durbin, Assistant Senate Majority Leader, U.S. Senate, Durbin Sends Letter to Wall Street Reform Conferees on Interchange Amendment (May 25, 2010) (quoting Letter from Senator Dick Durbin, Assistant Senate Majority Leader, U.S. Senate, to Senator Chris Dodd, Chairman of U.S. Senate Comm. on Banking, Hous., & Urban Affairs & Senator Barney Frank, Chairman of the House Fin. Servs. Comm. (May 25, 2010)), <https://www.durbin.senate.gov/newsroom/press-releases/durbin-sends-letter-to-wall-street-reform-conferees-on-interchange-amendment> [<https://perma.cc/HKT3-7E5M>].

97. Mukharlyamov & Sarin, Price Regulation, *supra* note 85, at 17.

98. Zach Carter & Ryan Grim, Swiped: Banks, Merchants and Why Washington Doesn’t Work for You, *HuffPost* (Apr. 28, 2011) (internal quotation marks omitted), https://www.huffingtonpost.com/2011/04/28/swipe-fees-interchange-banks-merchants_n_853574.html [<https://perma.cc/AN23-9UAH>].

Senator Pryor may have been correct: Large retailers reported Durbin was a boon to profitability. For example, The Home Depot anticipated a gain of \$35 million per year from Durbin.⁹⁹ These results are consistent with prior work by Professor David Evans who, with a different event study approach, estimated that over time consumers would lose between \$22 and \$25 billion from Durbin.¹⁰⁰

Survey evidence suggests that retailers failed to fully pass through savings: When surveyed, the sectors that experienced the greatest cost reduction report that they did not decrease prices in response to Durbin.¹⁰¹

The gas station serves as a useful measure to estimate the extent to which Durbin lowers retail prices. This is for three reasons. First, gas is an industry where interchange expense declines substantially post-Durbin: 15% of total savings accrue to gas retailers.¹⁰² Second, gas prices are set locally, making it easier to identify a precise Durbin effect.¹⁰³ Third, gas products are standardized, allowing for identification of relatively small price movements.¹⁰⁴ If gas stations fully passed through Durbin savings, then prices would be expected to fall between \$0.23 and \$0.17 per gallon for the average gas station.¹⁰⁵

99. Carol Tomé, Exec. Vice President of Corp. Servs. & Chief Fin. Officer, The Home Depot, Inc., Remarks at the Q4 2010 The Home Depot, Inc. Earnings Conference Call (Feb. 22, 2011), <http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9ODMwMTB8Q2hpbGRJRDR0tMXxUeXBIPtM=&t=1> (on file with the *Columbia Law Review*).

100. David S. Evans, Howard H. Chang & Steven Joyce, The Impact of the U.S. Debit Card Interchange Fee Regulation on Consumer Welfare: An Event Study Analysis 6 (Univ. of Chi. Law Sch. Coase-Sandor Inst. for Law & Econ., Working Paper No. 658, 2013) (on file with the *Columbia Law Review*).

101. See Zhu Wang, Scarlett Schwartz & Neil Mitchell, The Impact of the Durbin Amendment on Merchants: A Survey Study, 100 Fed. Res. Bank of Rich. Econ. Q. 183, 202, 207 (2014). The authors surveyed 420 merchants across twenty-six sectors and found that only four sectors were likely to have decreased prices in response to Durbin (art, automobiles, sporting goods, and other) and that prices fell for just 1.2% of merchants overall. *Id.* at 187, 194.

102. Mukharlyamov & Sarin, Price Regulation, *supra* note 85, at 6.

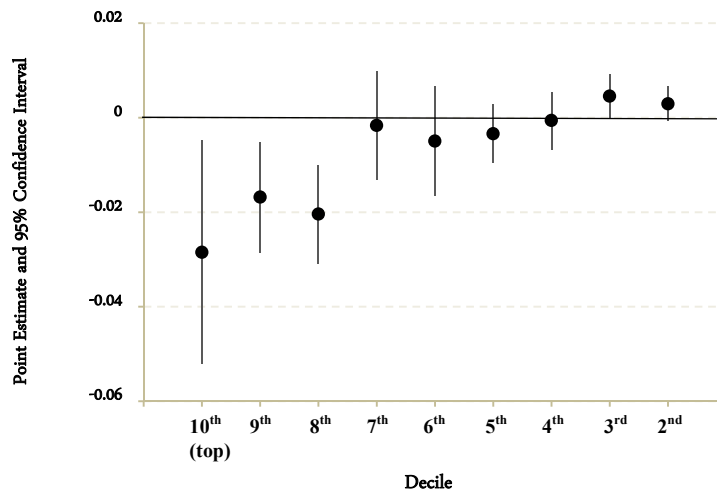
103. *Id.*

104. *Id.*

105. *Id.* at 30.

Figure 4 divides zip codes into ten deciles that range from areas most exposed to Durbin (tenth decile) to least exposed (first decile). Zip codes are sorted using interchange data that allow observation of how Durbin impacts different stations—specifically, some gas stations see few debit cards (low Durbin exposure), and others see primarily debit cards and have customers that only bank with large banks covered by Durbin (high Durbin exposure). If merchants pass through Durbin savings, prices should fall across all groups, with the largest price decreases for the most-impacted zip codes (tenth decile). Each bar plots the Durbin-induced gas price change in the six months following Durbin’s enactment.¹⁰⁶

FIGURE 4: DURBIN’S IMPACT ON GAS PRICES BY DECILE¹⁰⁷



106. Specifically, point estimates from the following regression are plotted, along with the 95% confidence interval: $(\text{Margin}_{\text{postDurbin}} - \text{Margin}_{\text{preDurbin}}) = \beta \times \text{Impact} + \epsilon$. In each regression, “Impact” takes a value of 1 for the relevant decile and a value of 0 for the bottom decile. These are estimates of how gas station margins (price net of wholesale cost) change based on a zip code’s exposure to Durbin and controlling for regional and gas station level differences. In each case, the control group is zip codes in the bottom decile, where Durbin does not impact merchants’ interchange costs. Coefficients are plotted in dollars—for example, for the tenth decile, the estimate is a price decrease of approximately \$0.03. Further detail is provided *id.* at 30–34.

107. This chart was prepared to illustrate the impact of Durbin on prices set by gas retailers. For each decile of Durbin impact, this chart compares merchants whose interchange expense falls post-Durbin to a matched control group of gas retailers who are not similarly impacted. Data on Durbin impact are proprietary and made available by a leading payments industry player, subject to robust privacy and data protection controls. Data on gas station margins come from the Oil Price Information Service, which monitors retail gas prices.

While there is evidence of a statistically significant price reduction following Durbin for gas retailers in the top deciles, overall, there is limited pass-through of Durbin savings.¹⁰⁸ Gas retailers pass through only a quarter of the \$1 billion in interchange savings that accrue annually.¹⁰⁹ Debit interchange regulation is thus a \$770 million annual boon to gas retailers' profitability.¹¹⁰ Extrapolating this estimate from the gas industry more broadly, the analysis suggests that around 75% of the \$6.5 billion in annual Durbin savings went directly to retailers' bottom line.¹¹¹ Durbin decreases consumer welfare by at least \$1 billion annually.¹¹²

This estimate likely understates Durbin's impact, because the new debit interchange cap did not help all retailers. Small-ticket merchants without sufficient market power to negotiate with card networks saw their interchange rates rise, not fall, as the Board's debit interchange cap became a floor.¹¹³ These merchants *raised* prices.¹¹⁴ For example, Redbox, which provides movie rentals through vending machines, increased prices by 20% post-Durbin,¹¹⁵ while Parkmobile, a smartphone application that helps Washington, D.C. residents pay for parking, raised its fees by more than 40%.¹¹⁶ Small business owners decried Durbin's impact. An

108. Mukharlyamov & Sarin, Price Regulation, *supra* note 85, at 31.

109. *Id.*

110. *Id.* at 26–31 (providing more detail on estimates of gas stations' pass-through of Durbin savings).

111. *Id.* at 6–7. There may be differences in pass-through across industries. See *supra* note 30 and accompanying text.

112. One way to understand the Durbin Amendment is as a wealth transfer from banks to businesses. One large retailer suggests that, despite the lack of discernible price changes, consumers are in fact the ultimate beneficiaries. Telephone Interview with Anonymous Representative (June 2017). The retailer was able to improve its customer service because of declining interchange expense. *Id.* This is certainly plausible, but does not seem to fit with the consumer savings that Senator Durbin claimed regulation would bring about. Retailers' shareholders certainly benefit as consumers, but this benefit is subsidized by higher checking account prices for low-income consumers. See *supra* text accompanying notes 86–93.

113. See Mukharlyamov & Sarin, Price Regulation, *supra* note 85, at 16.

114. See, e.g., *id.* at 15.

115. Daniel Indiviglio, Angry that Redbox Is Hiking DVD Rental Prices? Blame Congress, *Atlantic* (Oct. 28, 2011), <https://www.theatlantic.com/business/archive/2011/10/angry-that-redbox-is-hiking-dvd-rental-prices-blame-congress/247535/> [<https://perma.cc/2UWS=GU2S>].

116. See Dina ElBoghadady, Parkmobile Fee Increase Causes Scuffle with Sen. Durbin, *Wash. Post* (Nov. 2, 2012), https://www.washingtonpost.com/business/economy/parkmobile-fee-increase-causes-scuffle-with-sen-durbin-parkmobile-fee-hike-causes-scuffle-with-senator/2012/11/02/86c2a63c-2511-11e2-9313-3c7f59038d93_story.html (on file with the *Columbia Law Review*). It was in fact Visa and Mastercard's reaction to the Durbin Amendment, not the legislation itself, which resulted in higher costs for Parkmobile. See Robin Sidel, Debit-Fee Cap Has Nasty Side Effect, *Wall St. J.* (Dec. 8, 2011), <https://www.wsj.com/articles/SB10001424052970204319004577084613307585768> (on file with the *Columbia Law Review*) (reporting on the decisions of retailers to raise prices in response to higher rates from debit card companies). Parkmobile eventually had to apologize when Senator Durbin wrote a letter calling their claim "grossly misleading." *Id.*

owner of New York coffee houses said that in response to the new debit fee cap: “My choice is to raise prices, discount for cash or get an ATM.”¹¹⁷ Another merchant said that when customers offer a card to buy a low-dollar item, like a banana, he gives it to them for free to forego the interchange expense: “Just take the banana. Don’t give me the card.”¹¹⁸

The vending machine industry was especially hurt by Durbin—its interchange fees increased by more than 200%.¹¹⁹ Visa struck agreements with some vending machine payment processors;¹²⁰ however, Mastercard refused to negotiate a lower rate, leading many vending machines to drop Mastercard debit from their list of accepted payment methods¹²¹ until a similar deal was eventually reached years later.¹²²

4. *Unintended Consequences of Intervention.* — Durbin was not the first legislative attempt to rein in interchange fees. Interestingly, earlier iterations focused on *credit* rather than *debit* fees.¹²³ This was because credit interchange rates were historically higher,¹²⁴ and legislators hoped to dissuade banks and card networks from encouraging consumers to over-use credit cards, which can lead to expensive cycles of indebtedness.

The latter was exactly the rationale for the Reserve Bank of Australia’s (RBA) 2003 decision to intervene in this market by capping *credit* interchange fees at 0.55% of total transaction value.¹²⁵ The RBA’s primary objective “was to change the relative prices of credit cards and

117. Sidel, *supra* note 116 (internal quotation marks omitted) (quoting Think Coffee owner Jason Scherr).

118. Carter & Grim, *supra* note 98 (internal quotation marks omitted) (quoting Cups & Co. owner Charlie Chung).

119. Sidel, *supra* note 116.

120. Dig. Transactions News Staff, Apriva Extends Agreement with Visa to Offer Discounted Vending-Machine Pricing, Dig. Transactions (Nov. 29, 2012), <http://www.digitaltransactions.net/apriva-extends-agreement-with-visa-to-offer-discounted-vending-machine-pricing/> [<https://perma.cc/JD6Z-7TAX>].

121. *Id.*

122. In January 2015, after a hiatus of more than three years, vending machines that get payment services through USA Technologies began accepting Mastercard debit again. Mastercard Int’l Inc. & USA Techs., Acceptance Agreement (Jan. 8, 2015), https://www.sec.gov/Archives/edgar/data/896429/000157104915004372/t82294_ex10-2.htm [<https://perma.cc/PB34-9YKB>].

123. See, e.g., Credit Card Fair Fee Act, H.R. 5546, 110th Cong. (2008); Credit Card Accountability Responsibility and Disclosure Act, S. 3252, 110th Cong. (2008); Credit Card Interchange Fees Act, H.R. 6248, 110th Cong. (2008); Credit Card Fair Fee Act, S. 3086, 110th Cong. (2008) (sponsored by Sen. Durbin).

124. See U.S. Gov’t Accountability Office, *supra* note 69, at 19.

125. See Background, Reserve Bank of Austl., <https://www.rba.gov.au/payments-and-infrastructure/credit-cards/cc-fees-benchmark/background.html> [<https://perma.cc/4NZZ-SUCC>] (last visited Aug. 15, 2019) (“The effect of the standards has been to reduce the average interchange fee from around 0.95 per cent of the credit card transaction value to a little below 0.55 per cent.”).

debit cards to cardholders . . . reducing the substantial incentive to use credit cards over debit cards.”¹²⁶

Despite the fact that the Australian case study was well known to policymakers during the Durbin debate,¹²⁷ the legislation eventually targeted debit interchange. This was in response to a substantial lobbying effort by banks and credit card networks, which warned that any restriction on credit interchange would lead issuers to “squeeze credit and raise the cost of credit cards at a time when the economy thirsts for credit to sustain an economic recovery.”¹²⁸ In fact, Durbin lauded the Amendment’s focus on debit interchange, noting that, as a result, it would avoid any undesirable credit supply impact.¹²⁹

However, in capping *debit* interchange rates, the Durbin Amendment perversely increased the use of credit relative to its cheaper debit counterpart. Debit is also a preferred means of transacting in the eyes of many because it decouples financial transacting from consumer borrowing, thereby reducing the likelihood that purchases will land consumers in expensive cycles of debt.¹³⁰ David Evans, an academic with extensive background in payment systems, commented on the irony of Durbin targeting debit, rather than credit:

Debit cards . . . are the responsible man’s plastic. You are only using the money you have, it comes right out of your checking account, so if you’re concerned about consumer debt, you want people to be using debit cards more. . . . [I]t makes no sense for the Dodd–Frank Act to include an amendment that’s going to

126. Michele Bullock, A Guide to the Card Payments System Reforms, Res. Bank Austl. Bull., Sept. 2010, at 51, 59.

127. See Understanding the Federal Reserve’s Proposed Rule on Interchange Fees: Implications and Consequences of the Durbin Amendment: Hearing Before the Subcomm. on Fin. Insts. & Consumer Credit of the H. Comm. on Fin. Servs., 112th Cong. 12 (2011) (statement of Hon. Raskin) (“The Reserve Bank of Australia actually regulates credit card interchange on a cost basis. . . . We are obviously looking just at debit card interchange.”).

128. Keith Bradsher, U.S. Looks to Australia on Credit Card Fees, N.Y. Times (Nov. 24, 2009), <https://www.nytimes.com/2009/11/25/your-money/credit-and-debit-cards/25card.html> [<https://perma.cc/U8V6-X3AB>]. The implications of a potential credit squeeze were especially worrying for minority groups, who historically have less credit access than their white counterparts. Christian E. Weller, Ctr. for Am. Progress, Access Denied: Low-Income and Minority Families Face More Credit Constraints and Higher Borrowing Costs 1 (2007), https://cdn.americanprogress.org/wp-content/uploads/issues/2007/08/pdf/credit_access.pdf [<https://perma.cc/UA6K-YJXY>] (“[Minority] families are still denied credit more often than white families with the same income, and low-income families are more often denied access to credit than middle-income and higher-income families—even when low-income families apply for credit in line with their income and creditworthiness.”).

129. See Durbin, Statement on Swipe Fee Amendment, *supra* note 8.

130. See Oren Bar-Gill, Seduction by Plastic, 98 Nw. U. L. Rev. 1373, 1421 (2004) (“[T]he distorted pricing pattern observed in the credit card market is the product of the underestimation bias on the one hand and the bundling of transacting and borrowing on the other hand. . . . [T]he market has taken the first step towards the unbundling . . . with the invent of the debit card.”).

make debit cards less available for consumers, and it's going to have the unavoidable consequences to push them towards credit. I think it's nuts.¹³¹

In response to Durbin, banks encouraged greater credit usage.¹³² For example, spending on credit card rewards among big issuers more than doubled since 2010¹³³ while debit rewards programs were largely eliminated.¹³⁴ Not surprisingly, as a result credit usage grew more in the three years following Durbin's enactment than in any other three-year period since 2000.¹³⁵ For megabanks, this growth was especially pronounced: Credit usage by Wells Fargo customers increased by around 20% annually in the years following Durbin, but debit growth rates fell to 2% annually.¹³⁶ For JP Morgan, credit usage grew by around 10% annually following Durbin, but debit growth rates fell to only 4% a year.¹³⁷ Figure 5 plots the average credit and debit growth rates for the five largest financial institutions, which together account for more than 60% of total U.S. deposits. Although debit growth falls significantly following Durbin, credit growth increases substantially, which is at least suggestive of banks encouraging consumers to turn more frequently to credit cards, whose interchange rates are left uncapped by Durbin. Visa's CEO Joe Saunders highlighted this trend and noted that it is "what one would expect" from legislation capping debit, but not credit, interchange rates.¹³⁸

131. Martin Neal Baily: Reasonable Regulation of Debit Card Fees (Transcript), PYMNTS (May 2, 2011), <https://www.pymnts.com/news/2011/martin-neal-baily-reasonable-regulation-of-debit-card-fees-transcript/> [<https://perma.cc/BT9S-BAAD>].

132. As an example, in September 2011, Chase distributed a brochure to explain that credit is a superior payment instrument to debit for all purchases. Arin H. Smith, Note, Durbin's Defect: The Impact of Post-Recession Legislation on Low-Income Consumers, 89 N.Y.U. L. Rev. 363, 376 (2014).

133. Credit Card Rewards More than Doubled Since the Recession, New Study Shows, Magnify Money Blog (May 4, 2017), <http://www.magnifymoney.com/blog/news/credit-card-issuers-doubled-spending-rewards840948580/> [<https://perma.cc/4KDX-F55F>].

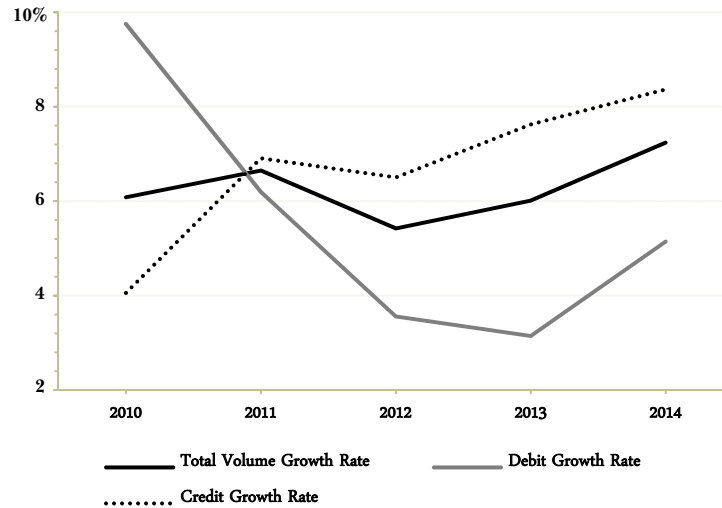
134. Richard Kerr, Where Have All the Rewards Debit Cards Gone?, The Points Guy (June 24, 2015), <https://thepointsguy.com/2015/06/rewards-debit-cards-gone/> [<https://perma.cc/4U5C-8FVS>].

135. See Fed. Reserve Sys., The Federal Reserve Payments Study 2016 at 4 (2016), <https://www.federalreserve.gov/newsevents/press/other/2016-payments-study-20161222.pdf> [<https://perma.cc/3XKE-8GMG>].

136. Mukharlyamov & Sarin, Price Regulation, *supra* note 85.

137. See *id.*

138. Thomson Reuters, Thomson Reuters Street Events Edited Transcript: V-Q1 2012 Visa Inc. Earnings Conference Call 12 (2012), https://s1.q4cdn.com/050606653/files/doc_financials/transcript/2012/V-Transcript-2012-Q1-2012.pdf [<https://perma.cc/UDG7-N7P7>].

FIGURE 5: CREDIT AND DEBIT GROWTH RATE FOR LARGEST BANKS¹³⁹

B. *The CARD Act*

1. *The Policy Problem.* — In 1980, credit card contracts were a page long. Today, the average contract is more than thirty pages. Professor and now-Senator Warren called this a move toward the inclusion of “tricks and traps that would obscure the true cost of credit—and drive profits through the roof.”¹⁴⁰ To some extent, she was correct.

Card fees have exploded since the late 1990s. This growth is tied to the Supreme Court’s decision in *Smiley v. Citibank (South Dakota), N.A.*¹⁴¹ The case related to the interpretation of the National Bank Act, which allows banks to charge interest rates based on the state in which the bank resides.¹⁴² In *Smiley*, Citibank levied penalty fees against a customer (Smiley) that were legal in the state of its headquarters (South Dakota) but not where Smiley resided (California).¹⁴³ Shortly after the initial complaint, the Office of the Comptroller promulgated a rule explicitly including late fees within the context of the National Bank Act,¹⁴⁴ and in

139. Calculations for this Figure are from the Nilson Report, which reports debit and credit usage for large issuers annually.

140. Sarlin, *supra* note 40.

141. 517 U.S. 735, 747 (1996).

142. *Id.* at 737.

143. *Id.* at 737–38.

144. *Id.* at 739–40.

Smiley, the Supreme Court ruled that this interpretation was not unreasonable.¹⁴⁵

Consumer penalty fees more than doubled in the immediate aftermath of *Smiley*, from just over \$8 billion in 1995 to nearly \$19 billion in 1998.¹⁴⁶ By 2004, penalty fees accounted for more than half of the credit card fees U.S. cardholders paid in 2004 (12.5% of issuers' revenues).¹⁴⁷ Various credit card contract terms enabled issuers to extract maximum fees. For example, card companies did not have to provide notice of interest rate increases; they could raise them without warning when cardholders applied for a mortgage or made a large purchase that lowered their credit score.¹⁴⁸ And although introductory teaser rates are presented to consumers up front, myriad other fees—such as late fees, over-limit fees, bounced-check fees, convenience and service fees, fees for statement copies and replacement cards, foreign-currency conversion fees, phone-payment convenience fees, wire-transfer fees, and balance-transfer fees—are buried deep in increasingly complex contracts.¹⁴⁹ Consumer inattention to these nonsalient back-end terms precipitated a status quo whereby consumers unknowingly incurred avoidable expenses.¹⁵⁰ And there was no incentive for new firms to offer more transparent products—that is, making clear up front what the cost of credit will be for consumers—because such honest brokers would have no customers: Many consumers opted for products with a low up-front price (0% APR for 18 months) and high penalty fees, even though they

145. *Id.* at 747.

146. Tamara Draut & Javier Silva, Dēmos, *Borrowing to Make Ends Meet: The Growth of Credit Card Debt in the '90s*, at 35 (2003), https://www.demos.org/sites/default/files/publications/borrowing_to_make_ends_meet_0.pdf [<https://perma.cc/5Y84-5YBX>] (highlighting how *Smiley* drastically increased credit card penalty fees).

147. See Bar-Gill & Warren, *supra* note 18, at 47; see also Nadia Massoud, Anthony Saunders & Barry Scholnick, *The Cost of Being Late? The Case of Credit Card Penalty Fees*, 7 *J. Fin. Stability* 49, 50–51 (2011).

148. See Bar-Gill & Warren, *supra* note 18, at 48 & n.132 (describing issuers' practice of “doubl[ing] or tripl[ing] interest rates when a cardholder's credit score drops”).

149. Professors Xavier Gabaix and David Laibson discuss the tendency of firms to shroud information from less sophisticated customers. One example they provide is bank accounts:

For example, banks prominently advertise the virtues of their accounts, but the marketing materials do not highlight the costs of an account which include ATM usage fees, bounced check fees, minimum balance fees, etc. Banks could compete on these costs, but they instead choose to shroud them. Indeed, many bank customers do not learn the details of the fee structure until long after they have opened their accounts.

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

150. See Gregory Bresiger, *People Are Unaware of How Much They Spend on Bank Fees*, *N.Y. Post* (July 16, 2016), <https://nypost.com/2016/07/16/people-are-unaware-of-how-much-they-spend-on-bank-fees/> [<https://perma.cc/9ADB-WG5P>] (“The main reason for the sky-high fees is that the customer is unaware of them.”).

would end up paying more in the long run in late fees and higher interest rates if they were delinquent.¹⁵¹ Loss-leader pricing to exploit consumers' irrationality was responsible for substantial credit card revenues in the precrisis period.¹⁵²

2. *Regulatory Approach to Solving the Problem.* — In response to widespread outrage, interventions in this market began during the Recession. In May 2007, the Federal Reserve proposed revisions to the Truth in Lending Act, and in February 2008, Federal Reserve Chairman Ben Bernanke testified before Congress that the Federal Reserve planned to use its authority to prohibit unfair or deceptive credit card practices.¹⁵³ In May 2008, the Fed proposed rules focused on protecting customers from unexpected increases in interest rates or penalty fees, ending two-cycle billing,¹⁵⁴ and prohibiting card issuers from creating a "cycle of debt" for subprime borrowers by opening accounts likely to generate astronomical fee revenue.¹⁵⁵

In tandem, Congress focused on this market. Carolyn Maloney (New York Democrat) introduced the "Credit Cardholder's Bill of Rights," which passed the House in September 2008 but was never considered in the Senate.¹⁵⁶ The bill was reintroduced in January 2009, only one month after the Federal Reserve issued its final rules to regulate card company practices.¹⁵⁷ In April and May 2009, both the House and the Senate overwhelmingly passed (357-70 and 90-5 votes, respectively¹⁵⁸) the

151. See Sumit Agarwal, Souphala Chomsisengphet, Chunlin Liu & Nicholas S. Souleles, Do Consumers Choose the Right Credit Contracts?, 4 *Rev. Corp. Fin. Stud.* 239, 242 (2015) ("A substantial fraction of consumers (about 40%) . . . chose the suboptimal contract, with a few non-fee-paying consumers incurring hundreds of dollars of readily avoidable interest charges.").

152. See Lawrence M. Ausubel, Adverse Selection in the Credit Market 20–22 (June 17, 1999) (unpublished manuscript) (on file with the *Columbia Law Review*) (noting that consumers are overly sensitive to promotional teaser rates and hypothesizing that this is because they underestimate the probability that they will later still be borrowing at higher, post-teaser rates and fail to optimize with these post-teaser prices in mind).

153. Jambulapati & Stavins, *supra* note 19, at 4 (providing a detailed discussion of the CARD Act's staged legislative history).

154. That is, when a consumer pays the entire balance one month but fails to do so the following month, and the bank calculates interest for the second month using days in the previous cycle as well as the current cycle.

155. See Press Release, Fed. Reserve Bd. of Governors, Highlights of Final Rules Regarding Credit Card Accounts (Dec. 2008), <https://www.federalreserve.gov/newsevents/pressreleases/files/bcreg20081218a1.pdf> [<http://perma.cc/R9DQ-7MX5>] (proposing rules to "prohibit unfair or deceptive acts or practices by banks in connection with credit card accounts").

156. Press Release, Carolyn B. Maloney, The Credit Cardholder's Bill of Rights (Feb. 6, 2008), <https://maloney.house.gov/media-center/press-releases/credit-cardholders%E2%80%99-bill-rights-balanced-reform> [<https://perma.cc/2ACJ-3KJ2>].

157. *Id.*

158. 155 Cong. Rec. 12,833 (2009) (Senate vote); 155 Cong. Rec. 11,204 (2009) (House vote).

reintroduced bill—the CARD Act.¹⁵⁹ The CARD Act superseded the Federal Reserve’s rules.¹⁶⁰ The CARD Act adopted many of the same prohibitions as the Federal Reserve (such as limiting unexpected interest rate hikes¹⁶¹) and added terms to reduce credit availability for college students,¹⁶² which regulators hoped would decrease the likelihood that young borrowers would find themselves stuck in cycles of debt.¹⁶³ The CARD Act’s ban on certain contract terms was meant to address the salience problem in this market: Consumers, enticed by attractive offers of 0% initial interest rates, unknowingly paid high back-end fees (such as penalty fees, interest rate increases, and over-limit fees).¹⁶⁴ By decreasing card networks’ ability to generate revenue from some of these hidden levers, CARD Act advocates hoped to decrease the overall cost of credit for consumers or at the very least make sure that consumers appreciated the true cost of credit.

3. *Impact of Regulatory Intervention.* — The CARD Act changed the economics of the credit card business by turning a short-term revolving unsecured loan, which could reprice when signals of consumer riskiness materialized, into a longer-term unsecured loan with lower ability to price discriminate by risk type. Opponents of the CARD Act warned that the result would be higher interest rates for consumers across the board and a decrease in credit supply.¹⁶⁵ Empirical evidence (detailed below)

159. Credit Card Accountability Responsibility and Disclosure Act, Pub. L. No. 111-24, 123 Stat. 1734 (codified as amended in scattered titles of the U.S.C.).

160. Jambulapati & Stavins, *supra* note 19, at 1.

161. § 101, 123 Stat. at 1735–36 (requiring advance notice of increase in interest rate).

162. § 301, 123 Stat. at 1747–48 (prohibiting extensions of credit to underage consumers).

163. See Bar-Gill & Warren, *supra* note 18, at 34 (discussing Haiyan Shui and Lawrence Ausubel’s findings that consumers routinely pay more interest than they must). This Article focuses on the aspects of the CARD Act that regulated issuers’ back-end credit card contract terms rather than other features such as the requirement that issuers assess borrowers’ ability to repay before providing credit. These features also had unintended consequences: Until the CARD Act was amended, for example, one group of borrowers who found their access to credit restricted was spouses or partners who do not work outside the home. See The CFPB Amends Card Act Rule to Make It Easier for Stay-at-Home Spouses and Partners to Get Credit Cards, CFPB (Apr. 29, 2013), <https://www.consumerfinance.gov/about-us/newsroom/the-cfpb-amends-card-act-rule-to-make-it-easier-for-stay-at-home-spouses-and-partners-to-get-credit-cards/> (on file with the *Columbia Law Review*).

164. See Bar-Gill & Warren, *supra* note 18, at 33–37, 46–52 (discussing the poorly informed behavior of consumers of credit cards and the changes that credit card issuers have developed over time to exploit this consumer behavior).

165. See Connelly, *supra* note 13; see also Tse, *supra* note 42. The CARD Act restrictions, such as the prohibition on rate increases for existing balances and the limitations on penalties and over-the-limit fees, severely hamper the ability to manage customer risks. Not only does this result in higher rates than would otherwise apply without the CARD Act, but those customers who might otherwise pay lower rates are subsidizing those who should pay higher rates, and credit availability may be constrained. See Letter from Jeffrey P. Bloch, Assoc. Gen. Counsel, Consumer Bankers Ass’n, to Monica

illustrates that critics were wrong—the CARD Act increased overall consumer welfare. It is important to understand why these concerns were overblown.

Estimates suggest the CARD Act reduced overall credit card fees by nearly \$25 per account annually, resulting in total cost savings for credit card users of nearly \$12 billion per year.¹⁶⁶ These savings were largest (nearly \$60 per account per year) for the least-creditworthy borrowers (those with a FICO score below 660).¹⁶⁷ Overall, these savings represent a decrease in account fees of over 25%.¹⁶⁸

Despite early anecdotal evidence to the contrary,¹⁶⁹ most academic work finds little support for the notion that banks offset the CARD Act's losses through increases in interest rates or other fees.¹⁷⁰ There appears to be no increase in interest rates in response to the CARD Act, either on existing accounts or on new accounts, which are less constrained by the CARD Act's repricing restrictions.¹⁷¹ However, there is some evidence that unregulated fees less salient to consumers—such as cash advance APRs—increased slightly in response to the CARD Act.¹⁷²

Jackson, Office of the Exec. Sec'y, CFPB (Feb. 19, 2013), https://www.consumerbankers.com/sites/default/files/021913_CBA-Response-to-CFPB-RFI-to-Study-the-Effects-of-The-CARD-Act-on-the-Credit-Card-Market.pdf [<https://perma.cc/E4K7-V67L>].

166. See Agarwal et al., *Regulating Consumer Financial Products*, supra note 19, at 114. This study provides the most exhaustive empirical work done on the impact of the CARD Act to date. The authors use a panel data set covering 160 million credit card accounts and adopt a difference-in-difference research design, comparing changes in outcomes over time for consumer credit cards, which were subject to the new regulations, to small business cards, which were exempted. *Id.* at 113.

167. *Id.* at 114. Those with a FICO score above 660 experienced a smaller decline in fees, of \$7.59 per account. *Id.*

168. For accounts with FICO scores below 660, late fees decline by 1.5 percentage points over both implementation phases, from a pre-CARD Act mean of 5.9% (1.5/5.9 = 25.4%). *Id.*

169. Connelly, supra note 13.

170. See Agarwal et al., *Regulating Consumer Financial Products*, supra note 19, at 115 (“We find little offsetting response in terms of pricing. Using the same difference-in-differences approach, we find no difference in anticipatory increase in interest charges prior to the CARD Act, and no evidence of a sharp or gradual increase following the CARD Act implementation periods.”) One recent exception is the work of economist Scott Nelson, which suggests that the CARD Act's limits on interest-rate adjustment resulted in across-the-board higher interest rates on average for all borrowers at origination. See Scott T. Nelson, *Essays on Household Finance and Credit Market Regulation* 23 (June 12, 2018) (unpublished Ph.D. dissertation, Massachusetts Institute of Technology) (on file with the *Columbia Law Review*). However, he concludes that the reduction in lender rents outweighs the impact of higher prices, “so that on net, the Act's restrictions allow consumers of all credit scores to capture higher surplus on average.” Nelson, *Private Information*, supra note 19.

171. See Agarwal et al., *Regulating Consumer Financial Products*, supra note 19, at 153–58.

172. Bar-Gill & Bubb, supra note 19, at 997.

4. *Unintended Consequences of Intervention.* — Evidence on the CARD Act's impact on credit supply is less clear, but there is some evidence that the Federal Reserve's 2008 rule proposals, which directly influenced the CARD Act's eventual reforms, triggered a decline in credit availability. But given that this earlier proposal coincides with the Recession, it is difficult to establish causally that decreased credit supply is attributable to imminent pricing restrictions rather than to the general economic downturn.¹⁷³

Recent work suggests that the CARD Act did somewhat decrease credit supply for subprime borrowers.¹⁷⁴ The existence of a supply-side credit effect, especially for subprime borrowers, is consistent with industry commentary:¹⁷⁵ In its recent assessment of the CARD Act, the American Bankers Association (ABA) indicated that the Act decreased credit availability for subprime borrowers.¹⁷⁶ Specifically, the ABA noted that from 2008 to 2016, total credit card accounts for superprime borrowers rose from 151 million to 176 million while total credit card accounts for subprime borrowers fell from 89 million to 73 million.¹⁷⁷

Still, on aggregate, this credit-supply effect appears outweighed by a decrease in lender rents.¹⁷⁸ The overall equilibrium effect of the CARD Act is an increase in consumer surplus estimated to be approximately \$12 billion annually.¹⁷⁹ This finding is consistent with estimates from the CFPB, which argues that the total cost of consumer credit declined by two percentage points between 2008 and 2012.¹⁸⁰

173. Jambulapati & Stavins, *supra* note 19, at 1 (making clear that it is difficult to determine whether the cause of account closures “was the economic downturn or preemptive action in anticipation of the new legislation”).

174. Nelson, Private Information, *supra* note 19, at 4.

175. See, e.g., Connelly, *supra* note 13 (“[A] law [the CARD Act] hailed as the most sweeping piece of consumer legislation in decades has helped make it more difficult for millions of Americans to get credit, and made that credit more expensive.”); see also Comment Letter from Nessa Eileen Feddis & Brian Murphy, Am. Bankers Ass’n, to Monica Jackson, Office of the Exec. Sec’y, CFPB 2 (June 8, 2017) <https://www.aba.com/-/media/documents/comment-letter/cl-card-act2017june.pdf> [<https://perma.cc/HN3V-BTG9>] [hereinafter Am. Bankers Ass’n, Consumer Credit Card Market] (“The availability of credit has declined, particularly for subprime borrowers who have no, limited, or poor credit histories.”).

176. See Am. Bankers Ass’n, Consumer Credit Card Market, *supra* note 175.

177. *Id.* at 3.

178. See Nelson, Private Information, *supra* note 19, at 3.

179. See Agarwal et al., Regulating Consumer Financial Products, *supra* note 19, at 111.

180. CFPB, CARD Act Report: A Review of the Impact of the CARD Act on the Consumer Credit Card Market 5 (2013), https://files.consumerfinance.gov/f/201309_cfpb_card-act-report.pdf [<https://perma.cc/QWP2-ZWMW>] (“[T]he total cost of credit . . . declined by 194 basis points from Q4 2008 to Q4 2012.”).

C. Overdraft

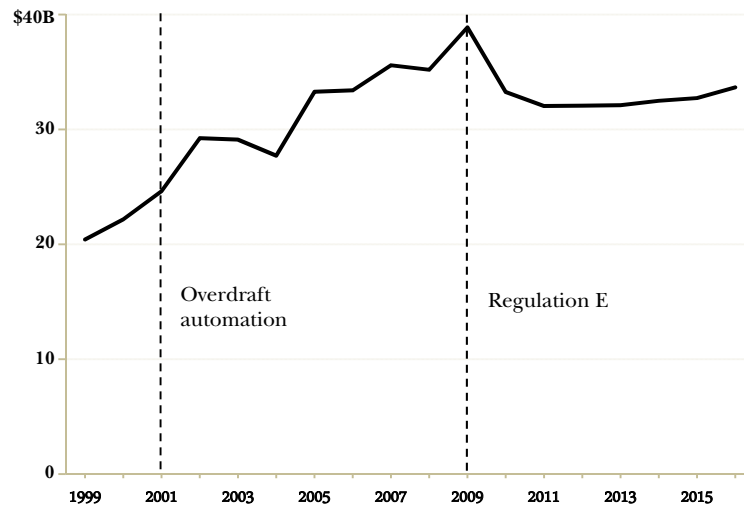
1. *The Policy Problem.* — An overdraft occurs when a customer attempts to withdraw an amount from their checking account, either through an ATM withdrawal or point-of-sale purchase, that exceeds the funds available in their account. Banks earn overdraft revenue by allowing customers to complete these transactions for a fee. Historically, institutions determined whether to cover overdraft transactions on a case-by-case basis based on customer and overdraft characteristics. In the early 2000s, banks began transitioning to automated overdraft programs—often designed by third-party vendors¹⁸¹—to maximize bank overdraft revenue by, for example, ordering customer overdrafts from largest to smallest, which can increase the frequency of overdrafts, and advertising overdraft programs to customers.¹⁸² To study the growth in overdraft revenue and how it has shifted as a result of recent reform, I rely on data from bank regulatory filings. As Figure 6 illustrates, service charges on deposit accounts¹⁸³ increased by more than 90% between 1999 and 2009. In fact, in 2006, overdraft fees accounted for around 6% of banks' *total* net operating revenues.¹⁸⁴

181. See FDIC, FDIC Study of Bank Overdraft Programs, at III, 50 (2008), https://www.fdic.gov/bank/analytical/overdraft/fdic138_report_final_v508.pdf [<https://perma.cc/WU93-599G>] [hereinafter FDIC, 2008 Study of Bank Overdraft Programs].

182. *Id.* at III, 36–38.

183. Until 2015, banks were not required to report overdraft fees as a line item on financial filings. See Peter Smith, Report: FDIC Data Shows that Banks Collected \$11.45 Billion in Overdraft Fees in 2017, Ctr. for Responsible Lending (Aug. 7, 2018), <https://www.responsiblelending.org/media/report-fdic-data-shows-banks-collected-1145-billion-overdraft-fees-2017> [<https://perma.cc/UY7D-6396>] (“Since 2015, the FDIC has collected and released information about these harmful penalty fees from banks that have \$1 billion or more in assets.”). Instead, “Service Charges on Deposit Accounts” includes overdraft and other fees, such as monthly maintenance fees on deposit accounts. Fed. Fin. Insts. Examination Council, Instructions for Preparation of Consolidated Reports of Condition and Income: FFIEC 031 and FFIEC 041, at RI-9 (2019), https://www.ffiec.gov/pdf/FFIEC_forms/FFIEC031_FFIEC041_201906_i.pdf [<https://perma.cc/UCP7-BY3H>] (describing the components of the “Service Charges on Deposit Accounts” line item). However, overdraft fees, at least prior to changes to Regulation E, were responsible for a sizable fraction of service charges on deposit accounts. FDIC, 2008 Study of Bank Overdraft Programs, *supra* note 181, at III, 56. Specifically, the FDIC estimated that fees related to nonsufficient funds (NSF) were 74% of total service charges on deposit accounts reported in 2006. *Id.*

184. FDIC, 2008 Study of Bank Overdraft Programs, *supra* note 181, at 56.

FIGURE 6: SERVICE CHARGES ON DEPOSIT ACCOUNTS (ANNUAL)¹⁸⁵

Overdraft revenue is generated primarily by repeat overdrafters. Before the Recession, about 75% of accounts had no overdraft incidents, 12% had one to four, 5% had five to nine, 4% had ten to nineteen, and only about 5% had more than twenty overdrafts annually.¹⁸⁶ Customers with more than ten overdraft transactions—fewer than 10% of all checking account customers—accrued 84% of the reported overdraft and nonsufficient funds (NSF) fees.¹⁸⁷ These customers were typically low income: In 2006, 38% of low-income customers overdrafted, compared to only 22% of their high-income counterparts.¹⁸⁸ Low-income customers were also about twice as likely to be frequent overdrafters.¹⁸⁹

Overdraft is essentially a very high-interest loan: If paid within two weeks, a \$27 overdraft fee¹⁹⁰ for a \$20 overdraft incident is equivalent to a bank loan with an APR of 3,520%. Banks offer cheaper ways to complete these transactions, for example, by opening an overdraft line of credit

185. This chart was prepared to illustrate the impact of changes in the overdraft market. The data come from the bank regulatory “Call Reports.” Banks do not report overdraft income explicitly; instead, they report service fees on deposit accounts, which includes overdraft, but also revenue from monthly maintenance fees, ATM out-of-network fees, check-cashing fees, and the like. Fed. Fin. Insts. Examination Council, *supra* note 183, at RI-9 to RI-10.

186. FDIC, 2008 Study of Bank Overdraft Programs, *supra* note 181, at IV.

187. CFPB, Study of Overdraft Programs, *supra* note 35, at 18.

188. FDIC, 2008 Study of Bank Overdraft Programs, *supra* note 181, at V. Notably, in some areas, “low-income” customers earned a median annual income of less than \$30,000. *Id.*

189. *Id.* (explaining that 7.5% of low-income customers experienced twenty or more overdraft incidents in a year, compared to only 3.8% of high-income customers).

190. This is the median for the FDIC study. *Id.*

(usually an APR of around 18%) or linking a checking account to a savings or credit card account (costing a \$5 flat fee).¹⁹¹ Given the availability of cheaper alternatives, banks' ability to generate overdraft revenue, especially from repeat overdrafters, is puzzling. One possible explanation for overdraft incidence is consumer inattention—nearly all consumers who overdraft are unaware that they are about to overdraw their accounts and unfamiliar with the magnitude of overdraft penalties.¹⁹² The lack of salience of these fees to the consumers who bear them enables banks to generate large overdraft profits.

Prior to recent changes, bank customers were automatically opted in to overdraft protection. Given the rapid increase in overdraft fees since the early 1990s and their disproportionate incidence on low-income customers, both popular commentators¹⁹³ and regulators¹⁹⁴ voiced concern.

2. *Regulatory Approach to Solving the Problem.* — In 2005, the Federal Reserve amended Regulation DD, which implements the Truth in Savings Act, to require additional disclosures about overdraft services and rein in misleading advertisements.¹⁹⁵ Banks were also required to disclose total overdraft fees incurred in periodic account statements.¹⁹⁶ Regulators hoped disclosures would nudge customers away from overdraft and push them toward cheaper alternatives.¹⁹⁷

Despite this intervention, overdraft fee income for banks and credit unions rose 35% from 2006 to 2008.¹⁹⁸ The Board then amended

191. *Id.* at III.

192. Pew Ctr. on the States, *Overdraft America: Confusion and Concerns About Bank Practices* 4 (2012), http://www.pewtrusts.org/~media/legacy/uploadedfiles/pes_assets/2012/sciboverdraft20america1pdf.pdf [<https://perma.cc/K3M8-5SZK>].

193. See, e.g., Ron Lieber & Andrew Martin, *Overspending on Debit Cards Is a Boon for Banks*, N.Y. Times (Sept. 8, 2009), <http://www.nytimes.com/2009/09/09/your-money/credit-and-debit-cards/09debit.html> (on file with the *Columbia Law Review*). One New York Times editorial called for regulators to “move quickly and aggressively to protect consumers.” Editorial, *Debit Card Trap*, N.Y. Times (Aug. 19, 2009), <http://www.nytimes.com/2009/08/20/opinion/20thu1.html> [<https://perma.cc/3ZY7-NSNZ>]. The editorial offered vivid anecdotes—for example, of a college student who “made seven small purchases including coffee and school supplies that totaled \$16.55 and was hit with overdraft fees that totaled \$245.” *Id.*; see also Editorial, *That \$35 Cup of Coffee*, N.Y. Times (Nov. 13, 2009), <http://www.nytimes.com/2009/11/14/opinion/14sat2.html> [<https://perma.cc/NAU3-NKDC>].

194. See FDIC, *2008 Study of Bank Overdraft Programs*, *supra* note 181, at II–V (describing a 2008 FDIC study to gather data on overdraft programs in response to the growth in automated overdraft).

195. 12 C.F.R. § 230.11(b) (2006).

196. *Id.* § 230.11(a).

197. Truth in Savings, 70 Fed. Reg. 29,582, 29,583 (May 24, 2005) (codified at 12 C.F.R. § 230.11) (explaining the Board's rationale for adopting new regulations).

198. Leslie Parrish, Ctr. for Responsible Lending, *Overdraft Explosion: Bank Fees for Overdrafts Increase 35% in Two Years* 5 (2009), <http://www.responsiblelending.org/overdraft-loans/research-analysis/crl-overdraft-explosion.pdf> [<https://perma.cc/VW97-2B8Q>].

Regulation E to change the default rules for overdraft.¹⁹⁹ In January 2009, it requested comment on two policy defaults: (1) an opt-out default, which would prohibit banks from assessing overdraft fees unless customers were given notice and a reasonable opportunity to opt out of overdraft protection and chose not to; and (2) an opt-in default, which would prohibit banks from assessing overdraft fees unless customers affirmatively opted in.²⁰⁰

The final rule adopted an opt-in approach.²⁰¹ In selecting this policy default, the Board specifically pointed to the fact that consumers unwittingly bear these fees. The Board hoped to avoid situations going forward where consumers “may unintentionally overdraw their account based on the erroneous belief that a transaction would be paid only if the consumer has sufficient funds in the account to cover it.”²⁰² Because consumers are likely to adhere to established defaults,²⁰³ the Board believed the opt-in regime would help prevent expensive and frequent overdraft incidents.²⁰⁴

The new default rule, which prohibits levying overdraft fees unless consumers actively opt in to overdraft protection, was meant to be a strong nudge against overdraft protection: The Board concluded that consumers would prefer such transactions be declined and amended the default rule accordingly.²⁰⁵ This view is consistent with the Board’s own internal testing²⁰⁶ and surveys,²⁰⁷ which demonstrate that about half of

199. 12 C.F.R. § 205.17 (2010).

200. Electronic Fund Transfers, 74 Fed. Reg. 5212, 5215 (proposed Jan. 29, 2009) (codified at 12 C.F.R. § 205.17).

201. 12 C.F.R. § 205.17. Changes to Regulation E involve only ATM and point-of-sale overdrafts. Overdrafts for check or scheduled recurring payments are not subject to the new opt-in requirement. *Id.* § 205.17(b)(2).

202. Electronic Fund Transfers, 74 Fed. Reg. 59,033, 59,039 (Nov. 17, 2009) (codified at 12 C.F.R. § 205.17).

203. As support for this proposition, the Federal Reserve Board cited Brigitte C. Madrian & Dennis F. Shea, *The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior*, 116 *Q.J. Econ.* 1149 (2001); and Gabriel D. Carroll, James J. Choi, David Laibson, Brigitte C. Madrian & Andrew Metrick, *Optimal Defaults and Active Decisions*, 124 *Q.J. Econ.* 1639 (2009). Both studies examine automatic enrollment in 401(k) savings plans and find a significant increase in employee participation when the default rule is enrollment rather than a default that requires employees agree to participation. See Electronic Fund Transfers, 74 Fed. Reg. at 59,038 n.25.

204. But see Todd Zywicki, *Behavioral Law and Economics and Bank Overdraft Protection*, Volokh Conspiracy (Nov. 20, 2013), <http://volokh.com/2013/11/20/behavioral-law-economics-bank-overdraft-protection/> [<https://perma.cc/3U3D-PBSY>] (“[T]he propensity to opt-in is positively correlated with the number of overdrafts.”).

205. See Electronic Fund Transfers, 74 Fed. Reg. at 59,038.

206. See Macro Int’l Inc., *Design and Testing of Overdraft Disclosures: Phase Two*, at v–vi (2009), <https://www.federalreserve.gov/newsevents/pressreleases/files/bcreg20091112a4.pdf> [<https://perma.cc/2WVJ-36GT>] (reporting that “about half [of overdrafters] said that they would have preferred that the bank deny the transaction”).

overdrafters would prefer transactions incurring overdraft fees not be completed.

3. *Impact of Regulatory Intervention.* — In commenting on the likely impact of changes to Regulation E, industry experts predicted that the result would be higher fees or a reduction in bank services given that “overdraft fees . . . subsidize other checking account features consumers enjoy, such as maintenance fee-free checking accounts, or free online bill payment.”²⁰⁸ Understanding the impact of changes to the overdraft opt-in regime—and the extent to which these are offset by sophisticated firms—can usefully inform debates about the desirability of behavioral policy interventions in consumer finance markets.

Figure 6 above shows that overdraft revenue decreased significantly following changes to the overdraft default rules. Service charges on deposit accounts declined by 14% over the year following the Board’s changes. Banks do not appear to have recovered these losses.²⁰⁹

Have overdraft losses been offset by increases in other types of bank fees? Figure 2 above illustrates that free checking has decreased by 40% since 2010. However, this decrease is concentrated in banks above the \$10 billion Durbin cutoff. Unlike Durbin, the new overdraft opt-in regime applies to large and small banks alike. In fact, smaller banks, which were more dependent on overdraft for revenue, were hit harder by the new opt-in default.²¹⁰ As such, the fee increases observed appear to be more related to Durbin than to changes in banks’ overdraft policies.²¹¹

But we know that the share of bank customers opted in to overdraft protection (and thus susceptible to incurring overdraft fees) decreased significantly following the new rule, from 100% to 16.1%.²¹² Even among frequent overdrafters, only 45% have opted in to overdraft protection.²¹³

207. A 2012 Pew study reported that 75% of people who reported overdrafting said that they would have preferred the nonrecurring debit transactions be declined. Pew Ctr. on the States, *supra* note 192, at 2, 5.

208. *Electronic Fund Transfers*, 74 Fed. Reg. at 59,039.

209. In fact, overdraft revenue may have decreased further since 2010. Banks’ “Service Charges on Deposit Accounts” line item includes monthly maintenance fees, which doubled for banks above the \$10 billion threshold in response to the Durbin Amendment. See *supra* Figure 3.

210. CFPB, *Study of Overdraft Programs*, *supra* note 35, at 60 (“Overdraft and NSF fees also compose 37% of study banks’ total deposit service charges and . . . overdraft and NSF fees make up an even larger share—over 60%—of total deposit service charges among community banks.”). As a result, smaller banks are more focused on opting in customers to overdraft protection. Community banks, for example, report opt-in rates of around 60%. Willis, *supra* note 55, at 1184 (citing CFPB, *Study of Overdraft Programs*, *supra* note 35, at 29).

211. Disentangling the two, however, is difficult: Both were enacted around 2010.

212. See CFPB, *Study of Overdraft Programs*, *supra* note 35, at 29. The opt-in rate is 22.3% for new accounts, which are easier to opt in to because they involve more direct contact with consumers. *Id.* at 30.

213. *Id.*

4. *Unintended Consequences of Intervention.* — One way to interpret the higher opt-in rate for frequent overdrafters is that motivated banks seek to avoid the opt-in default for highly lucrative customers. The economic rationale for such behavior is clear: Prior to changes to the default rule, 9% of customers generated 84% of overdraft and NSF revenue.²¹⁴ By opting in just this 9%, banks could recover nearly all of their overdraft revenue. However, another interpretation of this evidence is that frequent overdrafters like overdraft as a product—that is, they prefer overdraft protection to their transactions being declined.²¹⁵ Disentangling these two explanations is challenging, but well-designed regulation will discourage targeting of financially vulnerable consumers while still making overdraft as a product available to consumers who want it.

Table 1 below summarizes the three postcrisis interventions discussed in Part I.

214. *Id.* at 18.

215. Professor Cass Sunstein suggests this rationale: For frequent overdrafters, “[i]t is plausible to think that opting in is a good idea. If they cannot borrow from their bank, they might have to borrow from someone else—which would mean a level of inconvenience . . . and potentially equivalent or higher interest rates.” Cass R. Sunstein, *Nudges vs. Shoves*, 127 *Harv. L. Rev. Forum* 210, 215 (2014) [hereinafter Sunstein, *Nudges vs. Shoves*].

TABLE 1: SUMMARY OF INTERVENTIONS

Postcrisis Intervention	Policy Problem	Regulatory Approach to Problem Solving	Impact of Regulatory Intervention	Unintended Consequences of Intervention
Durbin Amendment	Interchange became a large operating cost for merchants as use of credit and debit for payment exploded.	Impose a \$0.22 cap on debit interchange collected from merchants.	Bank interchange revenue fell by \$6.5 billion annually. Monthly checking account fees doubled. Free checking decreased substantially.	Intervention increased checking account fees for consumers. Intervention may have shifted some consumers to credit. Intervention increased interchange fees for small-ticket merchants.
CARD Act	Credit card contracts increased in complexity. Unanticipated consumer fees arose.	Restrict unannounced fee increases and back-end penalty fees.	There were fee reductions of \$12 billion annually. There is little evidence of offsetting increase in interest rates.	There is some evidence of anticipatory decreases in credit availability.
Overdraft Opt-In Rule	Overdraft revenue grew by more than 100% in a decade, due to automated overdraft programs aimed at generating revenue by, for example, ordering transactions for maximum overdrafts.	Prohibit overdraft protection (and thus fees) unless customers opt in, otherwise the transaction is denied.	The share of customers who opted in to overdraft protection decreased from 100% to 16% (22% for new customers).	Banks dependent on overdraft may target frequent overdrafters for opt in: 10% are responsible for 85% of overdraft revenue. These consumers are often the poorest and least financially sophisticated.

II. LESSONS OF THESE INTERVENTIONS

This Article serves as a clear, empirical response to those in the regulatory community who believe consumer financial regulation will increase overall welfare regardless of the market particulars²¹⁶ and to those who believe any regulatory intervention will be ill fated.²¹⁷ Neither group paints an accurate picture, and my work offers three primary lessons: First, the regulation of nonsalient prices is desirable. This is because banks exploit consumers' behavioral limitations—like over-optimism (for example, consumers' mistaken beliefs that they will never be delinquent in paying credit card bills) and inattention (for example, consumers' failure to read checking account contracts, which explicitly detail the significant costs of overdrafting). Banks charge exorbitant nonsalient prices without worrying about losing customers. As such, policymakers must bring discipline to these markets by restricting shrouded pricing.

Second, in consumer finance markets, low-income consumers tend to pay higher prices than their high-income counterparts. The existence of inequitable cross-subsidization calls for regulatory intervention. These cross-subsidies arise for two distinct reasons: (1) High-income consumers are less likely to bear hidden penalty fees—because they tend to be more attentive and because they are wealthier, so they are less likely to overdraw their accounts or be delinquent on a credit card payment; and (2) high-income consumers have access to the most attractive financial products. For example, they transact with payment instruments that provide rewards for retail purchases. Cash users receive no similar benefits,

216. See, for example, Senator Dick Durbin and Representative Peter Welch's response to calls to repeal Durbin, arguing aggressively in favor of regulatory intervention in this market: "Make no mistake—Visa, Mastercard[,] and the big banks want to scare Congress and regulators away from exerting oversight . . . They think that by discrediting Congressional efforts to rein in their rigged schemes in the past, they will enhance their ability to get away with rigged schemes in the future." Dick Durbin & Peter Welch, *Sideswiped: The Hidden Motive Behind the Big Bank Push to Repeal Swipe Fee Reform*, Medium (Sept. 28, 2016), <https://medium.com/@SenatorDurbin/sideswiped-the-hidden-motive-behind-the-big-bank-push-to-repeal-swipe-fee-reform-504b9a097827> [<https://perma.cc/U9YC-M828>].

217. Professor Todd Zywicki has been highly critical of the three regulatory interventions studied in this article. See Todd Zywicki, *No, the Credit Card Act Is Not a Free Lunch*, Wash. Post (Jan. 13, 2016), <https://www.washingtonpost.com/news/volokh-conspiracy/wp/2016/01/13/no-the-credit-card-act-is-not-a-free-lunch/> (on file with the *Columbia Law Review*) (criticizing the CARD Act); Todd J. Zywicki, Geoffrey A. Manne & Julian Morris, *Price Controls on Payment Card Interchange Fees: The U.S. Experience 29* (Geo. Mason Univ. Law & Econ. Research Paper Series, Working Paper No. 14-18, 2014), https://www.law.gmu.edu/assets/files/publications/working_papers/1418.pdf [<https://perma.cc/4SWD-YE8F>] (criticizing the Durbin Amendment to Dodd-Frank financial reform legislation); G. Michael Flores & Todd Zywicki, *Overdraft Protection Rules Could Hurt Consumers More than They Help*, Mercatus Ctr. (Nov. 24, 2014), https://www.mercatus.org/expert_commentary/overdraft-protection-rules-could-hurt-consumers-more-they-help [<https://perma.cc/5LMZ-43DT>] (criticizing overdraft reform).

and the result is a regressive transfer from low-income, creditless consumers to their wealthier counterparts.

Third, regulators should follow what banks do—not what they say. Every time regulators act, banks caution that consumers will be hurt, because affected institutions will have no choice but to pass costs through to consumers. These warnings lead many academics and policymakers to be skeptical of the desirability of intervention. However, how banks respond to regulation is ultimately an empirical question, and one that this Article undertakes with surprising results. Despite bank assertions to the contrary, in many instances, impacted institutions eat the losses from regulation, rather than passing them through to their customers. Being too beholden to how we believe banks will respond to regulation—rather than following the data to understand how banks actually respond to regulation—leads to an overly pessimistic view of regulatory efficacy. This Part elaborates on these lessons in greater detail.

A. *Regulators Should Target Nonsalient Prices*

This Article considers the efficacy of postcrisis price regulations in the debit interchange, credit card, and overdraft markets.

While these three price regulations appear similar, the empirical analysis in Part I demonstrates their varied efficacy. Each intervention decreased banks' fee revenue, targeted the same financial institutions, received praise from consumer advocates as welfare enhancing, and inspired derision from banks as being likely to hurt the same consumers it sought to help. Net savings from the CARD Act are on the order of \$12 billion annually.²¹⁸ Additionally, changes to the overdraft regime have improved consumer welfare. The new opt-in default rules decreased the share of consumers eligible to incur overdraft fees by nearly 85%.²¹⁹ Service charges on deposit accounts declined by around 15%, and these losses have not been recovered.²²⁰ In stark contrast, consumers are *harmed* by Durbin's cap on debit interchange fees. Durbin has decreased bank interchange revenue (and merchant interchange expense) by around \$6.5 billion annually,²²¹ and banks have responded to this intervention by doubling account fees.²²² The share of bank customers with access to a free checking account declined by more than 40 percentage

218. See Agarwal et al., *Regulating Consumer Financial Products*, supra note 19, at 145.

219. See supra note 211 and accompanying text.

220. See supra Figure 6. There is no precise line item that captures total overdraft revenue. Instead, "Service Charges on Deposit Accounts" includes overdraft revenue as well as other account fees, like monthly maintenance fees. It is estimated that overdraft fees account for over 60% of total service charges. Overdraft revenue likely fell by even more than 15%, as bank account fees rose around the same period. *Id.*

221. Mukharlyamov & Sarin, *Price Regulation*, supra note 85, at 3.

222. See *id.* at 34.

points, from 60% of customers to around 20%.²²³ And merchants—who save around \$6.5 billion annually from Durbin—largely pocketed the reduction in interchange expense, and their profitability rose.²²⁴

Why do three price regulations provoke such different responses by banks and, consequently, have such varied implications for consumer welfare? The answer is salience.

Consumers tend to ignore certain aspects of product prices. Although they pay attention to salient terms—the sticker price of a car, the introductory APR offer on a new credit card solicitation—they ignore nonsalient terms—for example, the cost of refinancing and the penalty for late payments.²²⁵ As consumer finance has become an increasingly do-it-yourself industry, consumers are responsible for an increasingly intricate set of financial decisions.²²⁶ Firms offer more products with greater complexity. For example, the sheer number of credit cards consumers can choose from has exploded, with each offering different terms and rewards.²²⁷ These product differences are detailed in contracts that have increased in length from one page to more than thirty pages on average, giving credit card issuers more room to add hidden terms and fees to behemoth agreements that no reasonable consumer will ever read.²²⁸

1. *Price Regulation Can Tackle Salience Problems.* — Regulations that curb banks' ability to generate revenue from nonsalient pricing terms are beneficial. This is especially true if the financial sector is dominated by large institutions that are able to exercise monopoly power. When large firms have market power, high nonsalient prices mean excess profits for banks at the expense of consumers.²²⁹ When regulations curb nonsalient

223. See *supra* Figure 2.

224. See *supra* Figure 4 (illustrating, through gas prices, how merchants responded to Durbin).

225. See Gabaix & Laibson, *supra* note 149, at 506 (pointing out that firms regularly choose to hide information from customers; for example, banks shroud fees and compete only on prices that consumers are attentive to).

226. See John Y. Campbell, Howell E. Jackson, Brigitte C. Madrian & Peter Tufano, *Consumer Financial Protection*, 25 *J. Econ. Persp.* 91, 91–92 (2011) (“Households are expected to make decisions about pension plan contributions and payouts, to choose from a wide array of credit instruments to fund everything from home purchase to short-term cash needs, and more generally to assume a greater level of responsibility for their financial well-being.”).

227. See generally David S. Evans, *The Growth and Diffusion of Credit Cards in Society*, *Payment Card Econ. Rev.*, Winter 2004, at 59, 61, <https://ssrn.com/abstract=653382> (on file with the *Columbia Law Review*) (documenting the growth and diffusion of credit cards).

228. Elizabeth Warren, *Unsafe at Any Rate*, *Democracy Summer 2007*, at 8, 11–12 (“The additional terms were not designed to make life easier for the customer. Rather, they were designed in large part to add unexpected—and unreadable—terms that favor the card companies.”).

229. The Agarwal model makes clear that to get overall consumer benefit from regulation (which means that consumers were paying above cost before), the regulation

prices—for example, by capping them (like the CARD Act’s restriction on late fees) or by requiring consumers to opt in before incurring them (like changes to the overdraft default rules)—banks have a choice. They can offset losses by increasing salient prices or they can give up some of their rents. If banks choose to raise salient prices to offset these losses, they risk losing market share as customers flee to cheaper competitors.

Empirically, the interventions studied above illustrate banks’ reluctance to adjust salient prices: There is no evidence that banks recover CARD Act losses by across-the-board interest rate increases, nor is there evidence that banks recover losses from the new overdraft regime. That said, even if banks *had* offset their losses, these regulations would still have been desirable. The existence of nonsalient prices means consumers do not understand the true cost of consumer financial products. A credit customer thinks they are paying a 0% APR but does not appreciate that the 0% is only for the first six months or that they will pay \$35 every time they are delinquent. If they knew about these hidden fees, they would make a more educated product choice—perhaps they would pick a card with a slightly higher introductory APR but lower delinquency fees. Or perhaps they would choose to avoid credit cards entirely. Any regulation that restricts banks’ ability to shroud prices will, at the very least, help consumers make more informed decisions.

2. *An Alternative to Direct Price Regulation Is a Shock to Consumer Attention.* — An alternative to reining in nonsalient pricing directly is to make consumers aware of these exploitative pricing practices. Banks’ initial response to Durbin illustrates the impact of making fees salient on both consumer and firm behavior. In the immediate aftermath of Durbin, many large banks proposed a \$5 monthly fee for customers who use their debit cards as a form of purchase. This fee became a rallying cry for the Occupy Wall Street movement—protesters burned Bank of America debit cards,²³⁰ and an online petition against the fee garnered more than 200,000 signatures.²³¹ Lawmakers scorned the proposal, with then-Vice President Joe Biden labelling it as “incredibly tone deaf”²³² and Senator Durbin urging consumers to “vote with their feet” and close accounts at these institutions.²³³ Normally inattentive depositors heeded

needs both shrouding and imperfect competition. See Agarwal et al., *Regulating Consumer Financial Products*, *supra* note 19, at 114–15.

230. Bernard, *supra* note 89.

231. Ann Carrns, *Petition on Debit Card Fee Attracts 200,000 Supporters*, *N.Y. Times: Bucks* (Oct. 13, 2011), <https://bucks.blogs.nytimes.com/2011/10/13/petition-on-debit-card-fee-attracts-200000-supporters/> [<https://perma.cc/KXP7-FAWZ>].

232. Amanda Terkel, *Joe Biden on Bank of America: ‘At a Minimum, They Are Incredibly Tone Deaf’*, *HuffPost* (Oct. 6, 2011), https://www.huffingtonpost.com/2011/10/06/joe-biden-bank-america-tone-deaf_n_998055.html [<https://perma.cc/2WNM-97Z7>].

233. Press Release, Senator Dick Durbin, Assistant Senate Majority Leader, U.S. Senate, *Bank of America’s Outrageous New Fees* (Oct. 3, 2011), <https://www.durbin.senate.gov/newsroom/press-releases/bank-of-americas-outrageous-new-fees> [<https://perma.cc/U82M-VVWD>].

the call: Bank of America CEO Brian Moynihan reported that the number of people closing accounts in the immediate aftermath of the proposal jumped by more than 20% compared to the same period the prior year.²³⁴ The proposed \$5 fee became so unpopular that all of the institutions chose to reverse it. Bank of America's COO said the bank "listened to [its] customers very closely" and decided against moving forward with plans to charge this fee.²³⁵ While banks still offset Durbin losses, the lesson of the failed \$5 debit usage fee is clear: Raising the salience of a price can incentivize consumers to make more informed product choices.

The potential of such an approach is evident in the overdraft domain. Some support paternalistic mandates banning overdraft protection. But such blanket bans decrease the set of options available to consumers, some of whom may prefer the convenience of overdraft protection despite its high costs.²³⁶ Rather than abandon a behavioral nudge in favor of a prohibitive mandate, in the case of overdraft, there is room for a salience shock that preserves consumer choice.

Bank of America implemented a version of a salience shock for overdrafts from ATM transactions. Now, consumers can receive a notification when withdrawing cash, asking if they want to complete transactions that will cause them to overdraft.²³⁷ The benefit of this approach is that it alerts consumers to penalty fees immediately before they are incurred, allowing them to weigh the benefits of completing their transactions against the high costs. Priming consumers through salience shocks for overdrafts may decrease the frequency of overdraft incidents.²³⁸

The same is possible for point-of-sale transactions. If a consumer is buying a coffee and is about to overdraft, they could receive an alert indicating that if they complete the purchase, they will be charged a fee. The alert could also include a reminder that they can set up a less-expensive overdraft line of credit through their bank that will still allow them to complete the transaction. If the consumer is eager for caffeine and has no other means of payment, they may elect to complete it and

234. Martha C. White, Bank of America's \$5 Debit Fee Led to More Account Closings, CEO Says, *Time* (Jan. 23, 2012), <http://business.time.com/2012/01/23/bank-of-americas-5-debit-fee-led-to-more-account-closings-ceo-says/> [<https://perma.cc/H3PM-MGLZ>].

235. Bernard, *supra* note 89.

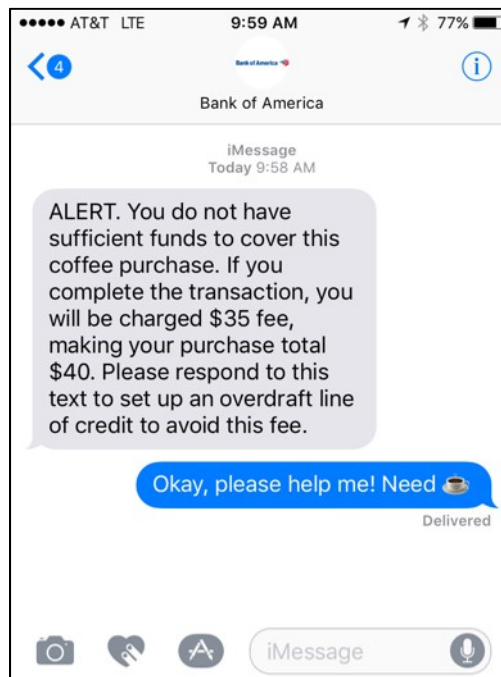
236. Sunstein, *Nudges vs. Shoves*, *supra* note 215, at 215 (highlighting this possibility in response to Bubb & Pildes, *supra* note 53).

237. Overdraft Services FAQs, Bank of Am., <https://www.bankofamerica.com/deposits/overdraft-services-faqs/> (on file with the *Columbia Law Review*) (last visited July 25, 2019).

238. See Victor Stango & Jonathan Zinman, Limited and Varying Consumer Attention: Evidence from Shocks to the Salience of Bank Overdraft Fees, 27 *Rev. Fin. Stud.* 990, 990 (2014) (finding in an experimental setting that consumers who face overdraft-related questions in surveys are less likely to incur these fees in the survey month, and consumers that take multiple overdraft surveys reduce their overdrafts for up to two years).

pay the overdraft fee. But making the fee salient should decrease overdraft incidence for the 75% of overdrafters who claim they would have preferred their transactions be declined to incurring high overdraft fees.²³⁹

FIGURE 7: SAMPLE “SALIENCE SHOCK”²⁴⁰



It is important to distinguish this call for such a salience shock in the context of overdraft (such as in Figure 7) from mandatory disclosures. Professors Omri Ben-Shahar and Carl Schneider provide a scathing indictment of mandatory disclosures, suggesting consumers suffer from two main problems that render disclosures ineffective: (1) an overload effect (namely, disclosures are too complex to be understood) and (2) an accumulation problem (in other words, it is hard to remember a disclosure when it competes in your memory with information about all other disclosures—“memory is a sieve”).²⁴¹ Additionally, many are skeptical of the usefulness of disclosures, noting that financial institutions generate rents by exploiting consumers’ tendency to underestimate the

239. Pew Ctr. on the States, *supra* note 192, at 5.

240. This Figure demonstrates a potential “salience shock” in the form of a text message that Bank of America could send to its consumers during a point-of-sale transaction in which they are about to overdraft.

241. Omri Ben-Shahar & Carl E. Schneider, *The Failure of Mandated Disclosure*, 159 U. Pa. L. Rev. 647, 686–90, 719 (2011).

likelihood they will make a late payment or overdraft.²⁴² Therefore, overly optimistic consumers may opt in to overdraft protection (even if the high fees are clearly disclosed) because, although they believe it is unlikely they will ever use the service, they want protection in case of an emergency. This is why recent changes to overdraft disclosure forms proposed by the CFPB are unlikely to be effective.²⁴³ Disclosures—even very clear ones—may prime consumers to the costs of overdrafting, but it is unrealistic to expect most people to retain this information or accurately estimate their likelihood of ever bearing these fees.

Instead, a behavioral salience shock like alerting consumers to the cost of an overdraft fee *immediately* before an overdraft incident has the potential to be successful because it avoids the overload, accumulation, and overoptimism problems. This immediate alert is a simple disclosure that does not need to be recalled: closer in spirit to the sanitation grades outside restaurants that Professors Ben-Shahar and Schneider approve of than complicated credit card contracts.²⁴⁴ Because relevant information is presented to consumers immediately prior to an overdraft occurrence, a salience shock also overcomes consumers' overoptimism.²⁴⁵ It makes the cost of overdraft salient when the overdraft incident is imminent, instead of long before the incident, when consumers may naively believe they will never make use of this service.

242. See Barr et al., *supra* note 38, at 50.

243. Professors Bubb and Pildes provide a vivid analogy for why they believe mandated disclosures to be ineffective:

Given the structure of the self-control problem, solving it requires forcing or enticing the consumer not to engage in a transaction that, even with a clear-eyed understanding of the terms and risks, the consumer in that moment wants to make. But while Odysseus could have himself forcibly lashed to the mast, no easy way exists for consumers to commit themselves not to open that store line of credit promising “no payments and no interest for the next 12 months.” . . . After all, Odysseus did not instruct his sailors to provide him with a “Total Cost of Swimming with the Sirens” disclosure as soon as he got within earshot.

Bubb & Pildes, *supra* note 53, at 1649. While a fair critique of disclosure in general, this is not an indictment of the proposed salience shock because, when made aware of the costs of overdrafting, consumers will overwhelmingly choose not to complete a transaction likely to incur a large fee. This is consistent with survey evidence suggesting that nearly all consumers do not realize they have overdrafted. See Pew Ctr. on the States, *supra* note 191, at 4. In this setting, it's more like Odysseus being tied to the mast when a simple alert from his fellow sailors—there are sirens coming and if they lure you off this boat it won't end well—would have sufficed. For an example of an overdraft disclosure form reflecting changes proposed by the CFPB, see Know Before You Owe: Current Model Form A-9, CFPB, http://files.consumerfinance.gov/f/documents/201708_cfpb_A-9-form-ficus_overdraft-model-forms-prototypes.pdf [<https://perma.cc/34RC-Y327>] (last visited on July 25, 2019).

244. See Ben-Shahar & Schneider, *supra* note 241, at 743 (“For example, Los Angeles County requires restaurants to disclose sanitation ‘grade cards’ on windows (letters ‘A,’ ‘B,’ or ‘C’), and these seem to have influenced consumers and, in turn, led to cleaner restaurants.”).

245. See *id.*

In proposing this salience shock, I follow the Ben-Shahar and Schneider suggestion that “brief, simple, and easy” disclosures work best when they are part of a “larger program of social change. Sometimes the purpose of mandates is not to give people information for making the choice they prefer but rather to induce them to make the choice the lawmaker deems preferable.”²⁴⁶ This shock is meant to do precisely that—strongly nudge consumers away from the \$40 cup of coffee but preserve their right to reject the nudge.

One reason to be confident about the efficacy of a salience shock in the overdraft market is that it is already proven to work in practice. The U.K. Financial Conduct Authority found that customers who receive text alerts when their checking account balances fall close to zero reduce overdraft incidents by 24%.²⁴⁷ As a result, all U.K. banking customers now receive these notifications.²⁴⁸

The ability of increased salience to shape consumer choice is evident across consumer finance markets: When consumers considering payday loans learned how the loans’ financing charges compared with the dollar cost of borrowing similar sums on credit cards, the use of payday loans fell by 11%.²⁴⁹ The same is true in the credit card market, where the CARD Act’s requirement that issuers disclose the benefits of early repayment increases consumers’ prepayment significantly,²⁵⁰ and the retail investing market, where consumers made aware of high mutual fund fees reallocate investments.²⁵¹

Salience shocks can thus be extended to consumer finance products more generally. For example, for credit card, mortgage, or student loan late fees, a notification reminding a consumer to pay their bill immediately or incur a penalty would be more effective in discouraging delinquency than *ex ante* disclosure of high penalty fees in these contracts. Given many consumers’ limited attention spans, interventions

246. *Id.* at 744.

247. Competition & Mkts. Auth., *supra* note 44.

248. Rob Goodman, Red Alert: Banks Must Now Text You if You’re About to Slip into Your Overdraft, *Sun* (Feb. 2, 2018), <https://www.thesun.co.uk/money/5484712/banks-must-now-text-you-if-youre-about-to-slip-into-your-overdraft/> [<https://perma.cc/3QY2-PFPW>].

249. See Marianne Bertrand & Adair Morse, Information Disclosure, Cognitive Biases, and Payday Borrowing, 66 *J. Fin.* 1865, 1866–67 (2011) (finding that disclosing the difference in charges between payday loans and credit cards in terms of dollar costs reduced the take-up of future payday loans by 11% during the subsequent four months).

250. See Agarwal et al., Regulating Consumer Financial Products, *supra* note 19, at 114 (finding that making salient the benefits of early repayment on monthly statements increases the number of account holders who repay early).

251. See Jill E. Fisch & Tess Wilkinson-Ryan, Why Do Retail Investors Make Costly Mistakes? An Experiment on Mutual Fund Choice, 162 *U. Pa. L. Rev.* 605, 640–41 (2014) (finding that with a fee instruction, test subjects paid average total fees that were approximately 0.11% to 0.14% less than the control group and invested a higher percentage of their portfolio in index funds than managed funds).

that make prices salient just prior to decisions that precipitate penalties will limit costly consumer mistakes.

It is important to restrict these types of salience interventions and dynamically assess when they are most necessary and most likely to be effective. Shocking consumers along all the decisions they make with notice of all of the possible fees is likely to run into Ben-Shahar and Schneider's "accumulation" problem: "[S]o many disclosures assail disclosees that they cannot possibly attend to more than a fraction of them."²⁵² As such, salience shocks should target fees and penalties that (1) generate significant profits for large financial institutions, and (2) seem poorly understood by the consumers incurring them.²⁵³

Experimental evidence sheds light on when "salience shocks" help guide consumers toward optimal behavior and when interventions are less useful. Compare the success of the United Kingdom's overdraft shock in decreasing monthly overdraft charges by 24% to the failure of an experiment in Mexico, in which visually showing consumers that their debt burden was risky relative to peers had little impact on overall indebtedness and even tended to increase indebtedness in some cases.²⁵⁴ Professor Ben-Shahar highlights this as proof that "smart disclosure" of the kind advocated in this section—"timely-relevant compact disclosure"—is unlikely to succeed.²⁵⁵

But Ben-Shahar's skepticism is not warranted. Salience shocks can be effective when they alert consumers to a cost that they can immediately and easily avoid. In the overdraft setting, a consumer about to bear this fee when purchasing their morning latte can simply pay with cash or begin their morning without caffeine. When a consumer receives a notice—even a clear, easy-to-understand notice—that they are likely to default on their credit and that to reduce their risk they should "maintain [their] debt well below [their] credit limit," the shock is less

252. Ben-Shahar & Schneider, *supra* note 241, at 687.

253. For example, precrisis dependency on overdraft income and credit card back-end fee income hinted at numerous salience problems. Further work should consider the appropriate regulatory design, perhaps developing a model for consumer finance analogous to the work of Professor Robin Greenwood (and coauthors) in the macroprudential risk arena. See generally Robin Greenwood, Samuel G. Hanson, Jeremy C. Stein & Adi Sunderam, *Strengthening and Streamlining Bank Capital Regulation*, *Brookings Papers on Econ. Activity*, Fall 2017, at 479, 525 (proposing a dynamic stress test by each year rounding up the "most highly compensated line managers or traders" and then "stress testing the exposures most closely associated with these employees"). *Id.* at 525.

254. See Enrique Seira, Alan Elizondo & Eduardo Laguna-Müggenburg, *Are Information Disclosures Effective? Evidence from the Credit Card Market*, 9 *Am. Econ. J.* 277, 279 (2017); *Competition & Mkts. Auth.*, *supra* note 44.

255. Omri Ben-Shahar, *More Failed Nudges: Evidence of Ineffective "Behaviorally Informed" Disclosures*, *Contracts Jotwell* (Aug. 10, 2017), <https://contracts.jotwell.com/more-failed-nudges-evidence-of-ineffective-behaviorally-informed-disclosures/> [<https://perma.cc/4LR5-9XPR>].

effective because the action demanded of them is more ambiguous.²⁵⁶ Shocks that highlight for consumers immediate costs and simple, easy ways to avoid them are more likely to shape behavior meaningfully.

B. *Regulators Should Address Inequitable Cross-Subsidies*

Each of the three interventions studied in this Article feature cross-subsidization of wealthy consumers by their low-income counterparts.²⁵⁷ The fact that poorer consumers tend to pay higher prices for consumer financial products justifies regulation.

This inequitable cross-subsidization clearly exists in markets with salience problems for two distinct reasons. First, low-income consumers are more prone to behavioral limitations that financial firms exploit. They are less attentive (less likely to read complex credit contracts) and more naive (more likely to underestimate the chances that they will pay penalty fees).²⁵⁸ Second, these consumers are less financially stable: They make less money and, as a result, have fewer funds in their bank accounts, increasing the likelihood of overdrafting. Similarly, they have

256. See Seira et al., *supra* note 254, at 279–80, 288 (finding that “high risk” messag[ing] . . . decreas[ed] delinquency, with an effect of 8.2 percent of mean delinquency”).

257. Here, cross-subsidization refers to consumers paying different prices for the same good or service. There is a possibility that what is labeled as “inequitable cross-subsidization” may be understood as price discrimination that occurs in response to the differences in the costs of serving different types of consumers. While this is a conceivable explanation of price patterns in the overdraft and credit card markets, proponents of this argument have difficulty explaining why it is the case that the most behaviorally limited consumers are the most expensive for the bank to service. In the interchange market, the cross-subsidization of rewards card users by their non-rewards-card counterparts is difficult to justify with any cost story. Additionally, intervention would still be justified, since a market failure arises from the inability of competitor card networks to compete with incumbents. See Pete Lukacs, Leslie Neubecker & Philip Rowan, *Fin. Conduct Auth., Occasional Paper No. 22, Price Discrimination and Cross-Subsidy in Financial Services 7–8* (2016) (distinguishing cross-subsidies from price discrimination).

258. See, e.g., Nadia Massoud, Anthony Saunders & Barry Scholnick, *The Impact of Wealth on Financial Mistakes: Evidence from Credit Card Nonpayment*, 9 *J. Fin. Stability* 26, 28 (2013) (finding that individuals who make avoidable credit card mistakes—for example, incurring credit card penalty fees despite having sufficient funds in their deposit accounts—tend to be poorer). These authors point out that there is a difference between individuals who deliberately go delinquent on credit card payments in spite of having sufficient funds available and those who go delinquent because they do not have sufficient funds and are facing financial difficulties. *Id.* Although we expect the latter to primarily be lower-income consumers, it is not obvious *ex ante* that the former—those who make mistakes like forgetting to mail checks on time or miscalculating their account balances and overdrawing—will be. Wealthier consumers may simply not care about the cost of incurring relatively minor fees. However, empirical evidence shows that poorer consumers are much more likely to pay avoidable penalty fees. These results are consistent with behavioral models that the poor are less financially sophisticated, and hold true even after accounting for differences in educational attainment. *Id.* at 35.

less disposable income and thus less money available to repay bills in a timely manner.

Note, however, that these are generalizations: Certainly, some low-income consumers closely read every financial contract, and some high-income consumers have lavish spending habits and limited savings. However, as a general rule, low-income customers disproportionately bear shrouded bank fees: An FDIC study estimates that about 20% of consumers with a median household income of \$70,000 or more regularly overdraft, whereas about 40% of consumers living in low-income areas with a median annual income of less than \$30,000 per year overdraw their accounts and bear penalty fees.²⁵⁹ Similarly, although nearly 70% of customers below the poverty line are in credit card debt (and thus capable of incurring penalty fees), this share is closer to 40% for consumers who make more than \$100,000.²⁶⁰ Additionally, the wealthy tend to have access to cheaper financial products: checking accounts with no monthly fees²⁶¹ and credit cards with attractive rewards and low interest rates. These products are often offered at below-cost prices: Consider a \$0 checking account. Providing a checking account is costly to the bank. For example, the bank needs to build a national ATM network, hire tellers to process transactions, monitor potential fraud in the account, and develop online banking technology. And yet, prior to Durbin, banks offered this product for free. They could afford to do this because fee income generated primarily from low-income consumers, such as overdraft revenue, helped cover the cost of providing these services.²⁶²

Regulating nonsalient prices will help the low income because it will decrease this cross-subsidization. But it can also help the wealthy. Avoiding nonsalient fees is time-consuming. Imagine your friend Penny is both sophisticated and highly cost sensitive. If there is a penny to be saved, she will expend tremendous effort to save it. To avoid potentially overdrafting, she either calls her bank to check her account balance before making every purchase or pays with cash. She continuously signs up for new credit cards to take advantage of 0% APR offers, carefully records when these rates expire, and closes the accounts before the introductory period ends. She sets alarms on her phone and leaves notes on her refrigerator reminding her of deadlines for credit card payments, lest she delay by a single day. Avoiding shrouded fees is utility enhancing for Penny—she pays less for financial services than her less careful counterparts. However, from a societal perspective, this behavior is

259. FDIC, 2008 Study of Bank Overdraft Programs, *supra* note 181, at v.

260. Draut & Silva, *supra* note 146, at 10.

261. Prior to Durbin, most consumers had free checking accounts; post-Durbin, only the rich, with sufficiently large account balances, have free checking accounts. See Mukharlyamov & Sarin, *Price Regulation*, *supra* note 85, at 5, 35.

262. Willis, *supra* note 55, at 1177 (highlighting how banks explicitly subsidize the cost of their free checking services with revenue from intentionally steep overdraft fees).

inefficient.²⁶³ Even consumers who benefit from cross-subsidization are inefficiently expending energy to preserve these benefits. More up-front pricing of consumer products would reduce these inefficiencies.

Importantly, inequitable cross-subsidization is also commonplace in markets that do not feature price shrouding. Even in the absence of salience problems, regulators should intervene to address regressive transfers. For example, many who study the interchange market highlight its unfairness: Low-income consumers pay higher prices for retail goods than the wealthy.²⁶⁴ When consumers pay in cash, merchants pay nothing to process these transactions. Cash-paying consumers tend to be the poorest—those without access to debit or credit instruments.²⁶⁵ When consumers pay with debit cards, merchants pay relatively low interchange fees. Debit-paying consumers are slightly better off than those who use cash, but still relatively low income, without access to credit.²⁶⁶ Credit usage is most pronounced among the wealthy.²⁶⁷ When consumers pay with rewards cards, merchants pay exorbitant interchange fees, often upwards of 4% of the value of the transaction. Some of that 4% goes to the card networks, which profit from interchange. But some of it also goes to wealthy consumers: A customer who uses a rewards card to buy a new pair of \$100 sneakers gets 1.5% cash back, paying only \$98.50 for their new Nikes. A customer who uses cash to make that same purchase

263. See, e.g., Chavie Lieber, *The Credit Card Obsessives Who Game the System—And Share Secrets Online*, Racked (Apr. 1, 2015), <https://www.racked.com/2015/4/1/8320731/credit-card-points-miles> [<https://perma.cc/K5JR-DAHK>] (“For most of us, this is a full-time obsession—I literally work 16 hours a day, seven days a week. It requires a lot of organization and spreadsheets.” (internal quotation marks omitted) (quoting Ben Schlappig, operator of credit card rewards blog *One Mile at a Time*)).

264. Aaron Klein, *America’s Poor Subsidize Wealthier Consumers in a Vicious Income Inequality Cycle*, NBC News: Think (Feb. 6, 2018), <https://www.nbcnews.com/think/opinion/america-s-poor-subsidize-wealthier-consumers-vicious-income-inequality-cycle-ncna845091> [<https://perma.cc/5FL5-W7KW>] (discussing how credit card users, especially those with more money in the account and thus more money to use, ultimately pay less by getting back some of what they have paid in the forms of cash back, reward points, or frequent-flyer miles).

265. Raynil Kumar, Tayeba Maktabi & Shaun O’Brien, *2018 Findings from the Diary of Consumer Payment Choice 9* (2018), <https://www.frbsf.org/cash/files/federal-reserve-cpo-2018-diary-of-consumer-payment-choice-110118.pdf> [<https://perma.cc/LP23-E4QX>] (“For individuals in households that earn \$50,000 or less, cash is the most common form of payment, followed by debit. As income rises, credit and debit replace cash as the most commonly used payment instrument.”).

266. See *id.* (finding that for households with less than \$25,000 in annual income, the most common means of purchase is cash; for households who make between \$50,000 and \$75,000, debit; and for households that make more than \$125,000, credit).

267. See *id.* at 10 (noting that “[a]t incomes above \$100,000, households use credit cards to pay for the largest number of transactions”—33% of their total. In contrast, those with incomes below \$25,000 disproportionately use cash—for nearly 50% of their transactions—and use credit cards only 7% of the time).

pays the full \$100.²⁶⁸ These dollar values may seem minute, but they accumulate quickly: On average, card-using households receive over \$1,100 from cash users every year.²⁶⁹ Rewards are subsidized by higher retail prices for low-income consumers.

One way to decrease the incidence of regressive transfers is to ban loyalty rewards programs. Economists estimate that eliminating credit rewards would increase consumer welfare.²⁷⁰ The intuition is simple: Banks generate high interchange revenue by offering attractive rewards programs to card-using consumers. If these rewards programs disappear, consumers will have no incentive to transact with payment instruments that are especially expensive to merchants. Less frequent use of these cards will lower merchant costs. As the conceptual framework offered in the Appendix illustrates, lower merchant costs will lead to lower retail prices. These savings will accrue most significantly to the low income, eliminating the “reverse-Robin-Hood problem” of the current payment regime.²⁷¹

As with regulations to rein in price shrouding, eliminating this cross-subsidy clearly helps the low income, decreasing the prices they bear. But it helps consumers more broadly as well. Many are point-chasing fanatics, maintaining several credit cards and expending both mental energy and time to determine which card to use for groceries, which offers the highest cash-back rewards, and when to close accounts before teaser offers expire.²⁷² This may be utility enhancing for individuals who derive pleasure from maximizing rewards; however, it is hard to view this intensity of search as socially desirable.²⁷³

268. See Schuh et al., *supra* note 48, at 1 (“[M]erchants mark up their retail prices for all consumers by enough to recoup the merchant fees from credit card sales. This retail price markup for all consumers results in credit-card-paying consumers being subsidized by consumers who do not pay with credit cards . . .”).

269. *Id.* at 3.

270. See, e.g., *id.* at 3–4.

271. See, e.g., Steven Semeraro, *The Reverse-Robin-Hood-Cross-Subsidy Hypothesis: Do Credit Card Systems Tax the Poor and Reward the Rich?*, 40 *Rutgers L.J.* 419, 420 (2009) (“Robin Hood . . . robbed from the rich and gave to the poor. . . [E]conomists have postulated that credit card companies do the opposite—forcing low-income cash customers to pay higher prices for retail goods that effectively fund . . . rewards that go predominantly to affluent cardholders.”).

272. See, e.g., Rob Copeland, *If You Have 29 Credit Cards, You’re Probably a Millennial*, *Wall St. J.* (Mar. 31, 2017), <https://www.wsj.com/articles/if-you-have-29-credit-cards-youre-probably-a-millennial-1490972634> (on file with the *Columbia Law Review*) (detailing how “[f]anatics sign up for new cards in every city they visit,” obtain “multiple versions of the same card,” and “angle to use their cards to cover tabs at restaurants”). One tale of point-chasing obsession stands out: A customer, so disappointed about being rejected for a Chase Sapphire Reserve, constructed a costume of the card out of cardboard and sent the bank a photo, hoping for reconsideration. See *id.*

273. See Lieber, *supra* note 263 (“[A] large part of the [point-chasing] community doesn’t actually like to travel, but they love gaming the system.’ It’s like extreme couponing: Those people get, like, 10,000 diapers for free even though they don’t have

Banning credit card rewards is unlikely to be a popular regulatory approach. A less aggressive alternative to eliminate cross-subsidization is to allow retailers to price discriminate. Inequities in this market arise from the fact that retail prices are uniform. It can cost merchants \$4 to process a \$100 credit card transaction, but there are legal and contractual barriers that prohibit merchants from surcharging credit card consumers to cover those \$4 of interchange expense.²⁷⁴ If merchants could pass through these processing fees to card users alone, the result would be lower retail prices for the cash-paying, low-income consumers. And card users could decide whether the benefits of card usage—for example, the cash back, the airline miles—were worth paying an extra \$4.

An even milder approach is to allow merchants to encourage consumers to use cheaper forms of payment. Card networks ban merchants from directly signaling to consumers that rewards cards have higher processing fees than other cards. These “antisteering provisions” make it impossible for retailers to nudge consumers toward cards with lower interchange expense.²⁷⁵ Allowing merchants to suggest consumers use cheaper payment alternatives will decrease inequitable cross-subsidies by reducing the incidence of transactions with rewards cards. Eliminating antisteering restrictions would also encourage the emergence of credit cards with lower interchange fees: Because merchants will be able to push consumers to use cheaper cards, there will be greater incentive for card networks to compete to be the card most recommended by retailers.

1. *Regulators Should Use Consumer Protection Authority to Tackle Inequitable Cross-Subsidization.* — Through a series of recent antitrust cases, merchants sought to implement some of the policies proposed in this Article: allowing retail price discrimination through surcharging consumers who use expensive payment instruments²⁷⁶ and removing

kids. In this case, some people care about screwing the airline, . . .” (quoting members of the credit-card blogging community)).

274. See, e.g., N.Y. Gen. Bus. Law § 518 (McKinney 2019) (prohibiting merchant surcharges on credit card users); Tex. Bus. & Com. § 604A.0021 (2019) (same); see also Credit or Debit Card Surcharges Statutes, Nat’l Conference of State Legislatures (Oct. 13, 2016), <http://www.ncsl.org/research/financial-services-and-commerce/credit-or-debit-card-surcharges-statutes.aspx> [<https://perma.cc/6N47-BJJ6>] (tallying similar state statutes and noting that eleven states and Puerto Rico have banned merchant credit card surcharges).

275. See *infra* section II.B.1.

276. See, e.g., *Expressions Hair Design v. Schneiderman*, 137 S. Ct. 1144, 1147 (2017) (holding that no-surcharge statutes, which bar merchants from charging consumers higher prices for credit card usage, implicate First Amendment concerns); see also Bruce D. Sokler, Robert G. Kidwell & Farrah Short, *What Have Merchants Gained from Payment Card Antitrust Litigation?*, Mintz (Aug. 3, 2016), <https://www.mintz.com/insights-center/viewpoints/2301/2016-08-what-have-merchants-gained-payment-card-antitrust> [<https://perma.cc/FVL4-PEPJ>] (detailing the history of payment card antitrust litigation and its effects on merchants). Interestingly, in some cases merchants are allowed to offer cash discounts and discounts for debit (versus credit) usage, although these rules vary by state and even by merchant. *Id.*

antisteering prohibitions.²⁷⁷ The antitrust argument is that these practices help too-big-to-fail institutions engage in anticompetitive exercises of market power, creating barriers to entry for new competitors, facilitating collusion to generate supracompetitive profits.

Historically, antitrust has been a powerful tool to rein in card network behavior.²⁷⁸ In the mid-1990s, Visa's and MasterCard's "exclusivity rules," which prohibited member banks from issuing cards from emerging competitors (Discover and American Express), were found to reduce competition unfairly.²⁷⁹ And after extensive litigation, card networks agreed to make changes to "Honor All Cards" rules, which required merchants to accept all networks' cards (even high-cost rewards) if they wanted to accept any of them,²⁸⁰ and card networks agreed to pay billions in damages for price-fixing.²⁸¹

However, recent trends in antitrust—directly related to interchange—give rise to questions about the viability of continued reliance on judicial enforcement in this setting.²⁸² In *Ohio v. American Express*, believed by some to be the "most significant antitrust opinion by the Court in more than a decade,"²⁸³ the Supreme Court held that American Express's antisteering terms—which prohibit merchants from encouraging consumers to use credit cards with lower interchange fees—are not anticompetitive.²⁸⁴ The Court's basic argument was that because the interchange market is two-sided (card networks depend on simultaneously

277. See, e.g., *Ohio v. Am. Express Co.*, 138 S. Ct. 2274, 2289 (2018) (finding that although antisteering provisions may restrict card networks' incentives to decrease merchant interchange rates, determination of whether these provisions are anticompetitive requires consideration of countervailing benefits that accrue to consumers from using rewards cards).

278. See generally K. Craig Wildfang & Ryan W. Marth, *The Persistence of Antitrust Controversy and Litigation in Credit Card Networks*, 73 *Antitrust L.J.* 675 (explaining the history of antitrust litigation against credit card networks).

279. See *id.* at 684.

280. Although "Honor All Cards" lawsuits for debit versus credit cards resulted in settlement, merchant suits to decouple rewards credit acceptance from nonpremium credit card acceptance remain live, and a new set of litigation is likely to emerge around "Honor All Devices" terms, whereby merchants that accept payment instruments housed in one digital wallet have to accept all digital wallets, regardless of the costs associated. See Adam Levitin, *Pandora's Digital Box: Digital Wallets and the Honor All Devices Rule 30* (2016), <http://www.creditslips.org/files/pandoras-digital-box.pdf> [https://perma.cc/WB23-R898].

281. In fact, a recent class action suit alleging collusive pricing practices was settled but then invalidated, largely because it restricted merchants' future ability to bring such suits. AnnaMaria Andriotis, *Visa, Mastercard Near Settlement over Card-Swipe Fees*, *Wall St. J.* (June 29, 2018), <https://www.wsj.com/articles/visa-mastercard-near-settlement-over-card-swipe-fees-1530193694> (on file with the *Columbia Law Review*).

282. See Lina Khan, *The Supreme Court Just Quietly Guttled Antitrust Law*, *Vox* (July 3, 2018), <https://www.vox.com/the-big-idea/2018/7/3/17530320/antitrust-american-express-amazon-uber-tech-monopoly-monopsony> [https://perma.cc/UWV4-FS5Z].

283. *Id.*

284. *Ohio v. Am. Express Co.*, 138 S. Ct. 2274, 2278 (2018).

marketing their product to merchants to accept their cards and to consumers to use them), proof of anticompetitive harm must consider both sides of this market.²⁸⁵ Thus, although one side of the market (merchants) may be harmed by antisteering provisions, this harm must be weighed against countervailing benefits that accrue to consumers who use these cards and get attractive rewards.²⁸⁶

Many antitrust experts point out flaws in this reasoning²⁸⁷ and believe that the Court erred by ignoring clear impediments to competition that eliminate the incentive for card networks to compete to offer lower merchant interchange rates.²⁸⁸ This is a reasonable critique. However, independent of any concerns about monopoly pricing, the existence of inequitable cross-subsidies in the interchange market, and more broadly in most financial markets, justifies intervention on consumer protection grounds because it is unfair that low-income consumers pay higher prices than their wealthy counterparts.

Specifically, Section 5531 of the Consumer Financial Protection Act of 2010 provides the CFPB with broad authority to intervene to prohibit “unfair, deceptive, or abusive act[s] or practice[s]” (collectively, “UDAAPs”).²⁸⁹ Practices may be unfair, deceptive, *and* abusive—but each prohibition is governed by distinct standards.²⁹⁰ Roughly, unfair acts are those likely to cause substantial injury, cannot be reasonably avoided, and lack countervailing benefits;²⁹¹ deceptive acts are those likely to mislead consumers;²⁹² and abusive practices are those that materially interfere with a consumer’s ability “to understand a term or condition of a consumer financial product or service,” or that take unreasonable

285. See *id.* at 2286.

286. *Id.*

287. See, e.g., Pallavi Guniganti, *Amex Ruling Is an “Economic Nightmare,”* Hovenkamp Says, *Global Competition Rev.* (Sept. 7, 2018), <https://globalcompetitionreview.com/article/usa/1173902/amex-ruling-is-an-%E2%80%9Ceconomic-nightmare%E2%80%9D-hovenkamp-says> (on file with the *Columbia Law Review*).

288. The District Court in *Ohio v. American Express Co.* found, and the U.S. Supreme Court’s dissenters agreed, that antisteering discourages card network competition. 138 S. Ct. at 2293–94 (Breyer, J., dissenting) (“Because the provisions eliminated any advantage that lower prices might produce, Discover ‘abandoned its low-price business model’ and raised its merchant fees to match those of its competitors.”).

289. 12 U.S.C. § 5531(a) (2012).

290. *Id.* Although the “abusive” standard has rarely been used as providing standalone authority, it has frequently been used to justify intervention to prevent practices that are also “deceptive” or “unfair.” See Adam Levitin, *CFPB “Abusive” Rulemaking?*, *Credit Slips* (Oct. 17, 2018), <https://www.creditslips.org/creditslips/2018/10/cfpb-abusive-rulemaking.html> [<https://perma.cc/3QZJ-D8XX>] (indicating that out of the 206 enforcement actions to date, the CFPB has brought “abusive” claims in only 27 cases, and in all but one the allegations alleged to be abusive were also alleged to be either unfair or deceptive).

291. See 12 U.S.C. § 5531(c)(1) (defining unfair practices).

292. See *CFPB v. Gordon*, 819 F.3d 1179, 1192 (9th Cir. 2016) (defining deceptive practices).

advantage of a consumer's lack of understanding of the risks, costs, or conditions of consumer finance products or services.²⁹³

Financial institution practices that create cross-subsidies, like antisteering provisions and prohibitions on merchant surcharging, are likely UDAAPs because they are unfair to low-income consumers: These consumers pay more for goods because they do not receive rewards kickbacks. In many cases, these consumers cannot reasonably act to avoid injury because they do not have access to premium rewards cards. Although there are countervailing benefits from loyalty rewards, crucially, these do not accrue to the same class of customers who suffer harm.²⁹⁴ Although the CFPB has yet to assert its UDAAP power in this setting, it likely has the authority to target payment products for the cross-subsidies they create.

Importantly, UDAAP power—unlike antitrust authority—does not require that consumer advocates demonstrate proof of anticompetitive harm to justify intervention. Thus, this Article hopes to push policymakers away from a singular focus on market concentration, which creates unnecessary hurdles that, in the current judicial climate, may be insurmountable.²⁹⁵ It is true that the financial sector is concentrated and becoming increasingly more so: The five largest banks hold more than 40% of the domestic deposits in the United States.²⁹⁶ This has prompted calls by policymakers and academics to “break up the banks.”²⁹⁷ Card networks are even more concentrated—Visa and Mastercard control more than 70% of the payment card market.²⁹⁸ It is plausible, and perhaps even likely, that the markets studied here feature large financial institutions using their market power to generate supracompetitive profits.²⁹⁹ However, even abstracting away from market power concerns, regulators can—and should—intervene in these markets on consumer protection grounds. The fact that wealthy consumers pay lower prices

293. See 12 U.S.C. § 5531(d) (defining abusive practices).

294. See *supra* section II.B.

295. See, e.g., Khan, *supra* note 282 (suggesting that the Court's decision in *Ohio v. American Express* makes it harder to enforce antitrust laws and consequently makes it easier for dominant firms “to abuse their market power with impunity”).

296. Trefis Team & Great Speculations, *The Five Largest U.S. Banks Hold More than 40% of All Deposits*, *Forbes* (Dec. 14, 2017), <https://www.forbes.com/sites/greatspeculations/2017/12/14/the-five-largest-u-s-banks-hold-more-than-40-of-all-deposits> [<https://perma.cc/VAH5-99RZ>] [hereinafter Trefis Team & Great Speculations, *Five Largest Banks*].

297. See, e.g., Sylvan Lane, *Bernie Sanders Introduces Bill to Break Up Big Banks*, *Hill* (Oct. 3, 2018), <https://thehill.com/policy/finance/409785-bernie-sanders-introduces-bill-to-break-up-big-banks> [<https://perma.cc/68NJ-2VMR>].

298. Trefis Team & Great Speculations, *AmEx Is Likely to Become the Second Largest U.S. Card Processing Company This Year*, *Forbes* (May 29, 2018), <https://www.forbes.com/sites/greatspeculations/2018/05/29/amex-is-likely-to-become-the-second-largest-u-s-card-processing-company-this-year/#3ffdf76a4fa0> [<https://perma.cc/HV6W-NTCR>].

299. In other words, profits above what could be sustained in a competitive market.

than their low-income counterparts justifies regulation. The focus on market power is thus unnecessarily limiting.

One important caveat is that although regulators can and should intervene in these markets, not all interventions will necessarily be beneficial. Durbin provides a powerful example of how ill-designed regulation can exacerbate the problems it seeks to correct. The interchange market features an inequitable cross-subsidy: Low-income consumers pay more for retail goods than their wealthier, rewards-earning counterparts. Rather than help these consumers, Durbin harmed them. As a result of the cap on debit interchange fees, bank fees doubled.³⁰⁰ These increases are borne entirely by low-income consumers, because fees are waived for wealthy consumers with sufficiently high account balances.³⁰¹

Unlike Durbin, well-designed interchange regulation should focus on *credit* interchange. The success of this approach is elucidated by predecessor legislation in Australia, where the cap on credit card interchange fees decreased the benefits to banks from credit usage: Consequently, banks lowered credit card rewards, thereby decreasing cross-subsidization of the wealthy by their low-income counterparts.³⁰²

Unfortunately, the Durbin Amendment did not follow the Australian example. Instead, this legislation capped *debit* interchange fees, leaving *credit* interchange fees unchecked. Rather than reduce credit card rewards, banks were incentivized to offer even more generous rewards programs to encourage consumers to use credit, for which interchange rates remain unregulated.³⁰³ For consumers without access to credit cards, this has widened the gap between the prices they pay and the prices the wealthy pay for retail goods. For the financially fragile with access to credit, the nudge toward credit has led to higher indebtedness, trapping these consumers in expensive cycles of debt. Overall, Durbin has harmed consumers—especially the low income—increasing the

300. Zywicki et al., *supra* note 217, at 8 fig.4 (displaying an increase in average bank account monthly maintenance fees from around \$6 in 2009 to over \$12 in 2013).

301. Mukharlyamov & Sarin, *Price Regulation*, *supra* note 85, at 35 (finding that more than 70% of consumers in the lowest income quintile pay account fees post-Durbin, compared to only 5% of those in the highest quintile).

302. See Review of the Reserve Bank and Payments System Board Annual Reports 2005: Hearing Before the H.R. Comm. on Econ., Fin., & Pub. Admin. 5 (2006) (Austl.) (testimony of Philip W. Lowe, Assistant Governor, Financial System Group, Reserve Bank of Australia), <https://www.aph.gov.au/binaries/hansard/rep/committee/r9267.pdf> [<https://perma.cc/BWH8-7JKP>] (noting in reference to the impact of the Australian credit interchange cap that “[t]he value of reward points has been cut, some merchants have introduced surcharges, and annual fees have been increased . . . [and] [o]n average, the value of reward points on those cards that offer points has fallen”).

303. See, e.g., Kevin Wack, *Did Durbin Amendment Lead to Unintended Credit Card Splurge?*, *Am. Banker* (Feb. 27, 2017), <https://www.americanbanker.com/news/did-durbin-amendment-lead-to-unintended-credit-card-splurge> (on file with the *Columbia Law Review*) (noting that fees collected from credit cards were almost twice as much as compared to debit card transactions after the amendment).

inequitable cross-subsidies that well-designed intervention in this market should address.

2. *Regulation that Helps Low-Income Consumers—Even if at the Expense of Their Wealthy Counterparts—Is Desirable.* — When policymakers debate regulation, they often discuss consumers as a group. Calling for a Consumer Product Safety Commission, then-Professor Warren described the inequities of a market with profit-hungry banks on one side and naive consumers on another. The issue with these markets, she argued, was that prior to the crisis regulators would “focus intently on bank profitability and far less on the financial impact *on customers* of many of the products the banks sell.”³⁰⁴

This was certainly true of the precrisis regulatory regime. However, this view misses the important nuance that consumers are heterogeneous. It is overly simplistic to think of these markets as featuring bad actors (banks) exploiting naive actors (consumers). It is still simplistic (though less so) to think of these markets as they are described in this Article—as featuring banks, sophisticated consumers, and unsophisticated consumers. Sophistication and income status tend to be closely related: Higher income consumers tend to be more sophisticated and have more money in their bank accounts. Practically, this means that the high penalty fees that low-income customers are likely to pay subsidize banks offering cheaper financial products to those who are wealthier.³⁰⁵

There are reasons to believe that reducing this inequitable cross-subsidization can be Pareto improving—said another way, that it is possible to decrease the prices that poor consumers pay for financial products without making the wealthy worse off. As illustrated in the Appendix, this can result if banks charge supracompetitive prices to generate excessive rents.³⁰⁶ Imagine a large sneaky bank. Sneaky Bank rips off customers by charging high prices: For a checking account that costs \$100 to provide, Sneaky Bank charges \$105. It also charges consumers that overdraw an extra \$200. This means unsophisticated consumers pay \$305 for their checking accounts; and sophisticated consumers pay \$105. Now imagine that regulators cap overdraft fees at \$0. Sneaky Bank is making much less revenue from unsophisticated consumers. But if Sneaky Bank raises baseline checking account prices to cover these losses, then it may lose customers. Faced with this possibility, banks like Sneaky Bank may choose not to offset losses from regulation of non-salient prices. This explains why banks do not raise salient prices in response to CARD Act and overdraft losses.

304. Warren, *supra* note 228 (emphasis added).

305. See Willis, *supra* note 55, at 1178 (pointing out that because overdraft fees “effectively subsidize all checking accounts, the effect is that the poorest account holders pay the costs of all accounts”).

306. See *infra* Appendix.

What if instead Sneaky Bank was less sneaky: It charged \$100 for checking accounts, which cost them exactly \$100 to provide. But then a competitor realized that it could offer free checking (a \$0 bank account) and cover costs by charging \$200 in overdraft fees to only unsophisticated consumers. Sneaky Bank would have been forced to change its pricing to mimic this competitor, otherwise it would have lost all its customers. This means that sophisticated consumers who avoid overdraft fees end up with cheaper bank accounts even though banks do not necessarily generate rents from pricing in this manner. If a regulator caps overdraft fees at \$0, Sneaky Bank will be forced to raise checking account prices to cover costs. In this example, sophisticated consumers would be harmed, because their checking account costs increase from \$0 to \$100. This intervention would not increase overall consumer welfare. However, it would increase welfare for unsophisticated consumers, who were being disadvantaged by shrouded pricing. This is a progressive reform that would create more equitable financial markets.

The stylized Sneaky Bank examples are meant to illustrate a simple point: No matter the market dynamics at play—whether oligopoly with banks making excessive profits, or perfect competition with zero bank profits, or some middle ground—regulation to tackle cross-subsidization is desirable.³⁰⁷ The relevant metric for policymakers should not be whether intervention increases consumer welfare overall but rather whether it creates a more equitable financial system. Practically, the interventions this Article advocates for in the interchange market (like decreasing loyalty rewards or allowing merchants to surcharge wealthy customers who use cards with higher interchange fees) may not benefit every group of consumers. The wealthy, who currently pay low retail prices because of rewards kickbacks, may see their prices rise. That is a feature of well-designed regulation, not a bug. Regulation should put a weight on the scale in favor of those disadvantaged in consumer markets. While this can mean tilting the scales in favor of naive consumers and away from sophisticated banks, it can also mean tilting the scales in favor of naive consumers and away from more sophisticated consumers.

C. *Watch What Firms Do, Not What They Say*

This Article illustrates the dangers of judging the desirability of regulation based on how banks say they will respond to intervention. As profit-maximizing institutions, these firms have every incentive to prevent regulators from curbing their behavior. To discourage costly regulation,

307. It is worth noting that many prominent law and economics scholars are skeptical of legal rules to accomplish such redistribution and instead prefer redistribution through progressive income taxation. See, e.g., Louis Kaplow & Steven Shavell, *Why the Legal System Is Less Efficient than the Income Tax in Redistributing Income*, 23 *J. Legal Stud.* 667, 674–75 (1994). While not the subject of this Article, future research should consider whether more progressive taxes can right the inequities in consumer finance markets more efficiently than direct intervention.

every time policymakers propose a change, banks argue that the result will be higher consumer costs and less access to desirable financial products.³⁰⁸ However, the empirical evidence in this Article suggests that financial institutions' assertions about how interventions will harm consumers are often overstated.³⁰⁹ Analyzing regulatory efficacy requires thorough data-driven analysis of what banks actually do in consumer finance markets, not simply trusting banks' assertions that losses will be passed through to consumers.

In commenting on the CARD Act, large card issuers argued that consumers, not banks, would bear the costs of restrictions on penalty fee revenue and unanticipated interest rate hikes.³¹⁰ Financial institutions noted that before the CARD Act, the ability to freely adjust credit card prices allowed card issuers to price-discriminate between risky customers, to whom the provision of credit is expensive, and stable customers, to whom the provision of credit is less costly.³¹¹ Because the CARD Act restricts penalty fees and interest rate changes, card companies said they would lose this potential for price discrimination and all consumers' prices would increase to cover the likely defaults of the riskiest borrowers.³¹² Even academics who supported regulating credit card penalty fees took heed of banks' caution and warned that "the reduced revenue stream to lenders from these fees would mean that other rates and fees would be adjusted to compensate."³¹³

Early reports of the CARD Act suggested that banks adjusted in the manner they said they would, and that the intervention increased the cost of borrowing across the board for borrowers of all risk types. Popular press articles suggested that the CARD Act increased interest rates for consumers,³¹⁴ and Federal Reserve commentators postulated that the

308. See, e.g., Who Pays for Bank Regulation?, Goldman Sachs (June 2014), <https://www.goldmansachs.com/insights/public-policy/regulatory-reform/who-pays-for-bank-regulation.html> [<https://perma.cc/X9XH-QZG9>] ("[L]ow-income consumers and small businesses . . . have paid the largest price for increased bank regulation.").

309. See *supra* sections I.A.3, I.B.3 & I.C.3.

310. See, e.g., Am. Bankers Ass'n, Consumer Credit Card Market, *supra* note 175 ("The cost of credit is higher [for consumers] than it would be in the absence of the CARD Act.").

311. See, e.g., *id.* at 11 (noting that the CARD Act has limited card issuers' ability to adjust interest rates based on consumers' payment behavior).

312. See, e.g., Visa Inc., Annual Report (Form 10-K) 14 (Nov. 22, 2013), <http://d1lge852tjjqow.cloudfront.net/CIK-0001403161/de11876c-2110-47d2-9026-367deae048e9.pdf> [<https://perma.cc/BVC4-BB6V>] (stating that the CARD Act "could increase the costs of card issuance or decrease the flexibility of issuers to charge market-based interest rates and fees on credit card accounts").

313. See Barr et al., *supra* note 38, at 50.

314. See, e.g., Curtis Arnold & MoneyBuilder, CARD Act May Have Cost Consumers Billions, *Forbes* (Feb. 21, 2012), <https://www.forbes.com/sites/moneybuilder/2012/02/21/card-act-may-have-cost-consumers-billions/#2b6ae9a75bbb> [<https://perma.cc/6HC5-HUT8>] ("Based on roughly \$800 billion in outstanding U.S. credit card debt over much of the

CARD Act may have led to closures of now-unprofitable consumer accounts³¹⁵ and lower credit limits for customers.³¹⁶ The financial sector suggested that the CARD Act increased interest rates by more than 72 basis points, pointing out that “[w]hile the CARD Act has provided clear and significant benefits to consumers, there have also been significant tradeoffs, specifically, higher costs and less availability for credit card credit.”³¹⁷

However, these early analyses conflated the impact of the CARD Act with general economic conditions. The period surrounding its enactment coincided with the worst economic downturn since the Great Depression.³¹⁸ This makes drawing causal inferences challenging: Do banks close credit card accounts and decrease credit limits because of the CARD Act, or because aggregate consumption—and thus demand for credit—dropped off because of the Recession?³¹⁹

Thorough empirical work on the CARD Act is able to disentangle the impact of the legislation from the impact of the decrease in credit demand that has followed from the Recession and comes to a much more positive outlook on its efficacy. Working with a unique panel dataset from the Office of the Comptroller of the Currency, economists compared consumer credit card accounts, which were impacted by the CARD Act, to small business accounts, which were left unregulated.³²⁰ Because both consumers and small businesses were impacted by the Recession, this approach was able to isolate the impact of the CARD Act. The economists found that although fees on consumer credit cards decreased substantially following the CARD Act, there has been no offsetting increase

past two years, this 2.1-percent increase in credit card rates would translate to an annual additional consumer cost of \$16.8 billion.”).

315. See, e.g., Jambulapati & Stavins, *supra* note 19, at 10 (“[V]oluntary or involuntary closures may be related to the reforms.”).

316. See, e.g., Larry Santucci, *A Tale of Two Vintages: Credit Limit Management Before and After the CARD Act and Great Recession 14* (Fed. Reserve Bank of Phila. Payment Cards Ctr., Discussion Paper No. 15-01, 2015), <https://www.ssrn.com/abstract=2646080> (on file with the *Columbia Law Review*) (stating that the CARD Act may have contributed to “lower credit limits for high credit-quality consumers”).

317. Comment Letter from Nessa Eileen Feddis, Am. Bankers Ass’n, to Monica Jackson, Office of the Exec. Sec’y, CFPB (Feb. 19, 2013), https://www.aba.com/archive/Comment_Letter_Archive/Comment%20Letter%20Archive/clCardAct2013Feb.pdf [<https://perma.cc/AJ75-KSS6>].

318. See generally IMF, *World Economic Outlook: Crisis and Recovery* (2009), <https://www.imf.org/en/Publications/WEO/Issues/2016/12/31/World-Economic-Outlook-April-2009-Crisis-and-Recovery-22575> (on file with the *Columbia Law Review*) (discussing the impact and projections of the 2008 financial crisis).

319. See Jambulapati & Stavins, *supra* note 19, at 1 (stating that it is difficult to determine whether the main cause of account closures “was the economic downturn or preemptive action in anticipation of the new legislation”).

320. See Agarwal et al., *Regulating Consumer Financial Products*, *supra* note 19, at 113.

in interest rates or reduction in credit availability.³²¹ The overall effect of the CARD Act has been thus to *reduce* credit costs for consumers by nearly \$12 billion annually.³²² This empirical work demonstrates that, despite banks' warnings, the CARD Act did not increase the cost of credit or decrease its availability. Although financial institutions stated they would offset CARD Act losses, concerns about losing customers appear to have limited their adjustment. Accurate insights about regulatory efficacy rely on studying how firms actually respond to consumer-oriented regulations.

1. *Listening to Banks Can Lead to Poorly Designed Regulation.* — Overreliance on banks' comments on how they plan to respond to regulation can lead to ineffective regulation, as the Durbin Amendment demonstrates. Initially, policymakers proposed regulating credit, rather than debit, interchange.³²³ This made sense: In the decade leading up to the Recession, card issuers had introduced premium cards with high interchange rates. To incentivize consumers to use these cards, they offered rewards. The result of the growth in rewards credit cards was that (1) consumers were using credit cards more, thus increasing their indebtedness; and (2) the inequitable cross-subsidization of the wealthy grew, because only the wealthy had access to these payment instruments.³²⁴

In Australia, predecessor regulation that capped credit card interchange successfully addressed the problems in this market.³²⁵ Australia's cap on credit card interchange increased the use of debit cards, which are generally regarded as a safer payment instrument because they decouple financial transacting from borrowing. This means that debit usage, unlike credit usage, does not increase indebtedness. Because credit card interchange became less profitable, card issuers had less incentive to encourage credit usage and thus lowered rewards, decreasing the cross-subsidization of the wealthy by their low-income counterparts.

In this case, a potentially useful regulation (restriction on credit interchange) was abandoned in favor of a harmful one (restriction on debit interchange) precisely because regulators were too attentive to banks' warnings about the impact of intervention. Banks assured

321. *Id.* at 115, 160.

322. *Id.* at 145.

323. See, e.g., Credit Card Fair Fee Act of 2008, H.R. 5546, 110th Cong. § 2(b) (2008) (proposing for credit interchange rates to be set by Electronic Payment System judges).

324. See Pew Research Ctr., What Americans Pay For—And How 3 (2007), <https://www.pewresearch.org/wp-content/uploads/sites/3/2010/10/Expenses.pdf> [<https://perma.cc/7CHM-XG2Q>] (finding that people with higher incomes are more likely than people with lower income to cite rewards programs as their reason for using credit cards).

325. See Credit Cards: Regulatory Framework, Reserve Bank of Austl., <https://www.rba.gov.au/payments-and-infrastructure/credit-cards/regulatory-framework.html> [<https://perma.cc/8XTB-J7MS>] (last visited Aug. 15, 2019) (“In short, the current credit card regulations cap credit card interchange fees to a weighted average of 0.50 per cent of transaction value . . .”).

policymakers that capping credit interchange fees would increase the cost of credit “at a time when the economy thirst[ed] for credit to sustain an economic recovery.”³²⁶ Regulators subsequently changed tacks and sought to cap debit rather than credit interchange out of fears that a decrease in credit supply could prolong the Recession. Senator Durbin was so convinced about the inevitability of consumer harm from regulating credit card interchange that he celebrated that unlike earlier proposals, his namesake Amendment would leave credit fees unchecked.

It is impossible to know how banks would have responded to a cap on credit interchange fees. If the Australian case study is informative, then there is reason to believe the impact would have been a positive one: less cross-subsidization of the wealthy by the poor. Certainly, it is easy to understand why banks pushed against credit card interchange regulation: Credit interchange rates are higher and card issuers generate significant revenue from inducing consumers to use these cards with rewards.³²⁷ One bank executive describes Durbin as the “lesser of two evils” when it came to interchange regulation, stating “we would have preferred no regulation, but if they were going to do something, better debit than credit.”³²⁸

The ability of industry to shape regulation is precisely why economist George Stigler was wary of the regulatory project. Stigler’s central thesis was that regulation would inevitably be “acquired by the industry and is designed and operated primarily for its benefit.”³²⁹ The watering down of interchange reform illustrates Stigler’s concerns. For consumer financial regulation to serve consumers, regulators must be skeptical of how sophisticated financial firms describe their likely response to regulation. Being too beholden to concerns voiced by industry can dismantle potentially useful interventions.

2. *Listening to Banks Can Lead to Pessimism About the Efficacy of Regulation.* — Policymakers are not alone in mistakenly relying on banks’ warnings about the likely impact of regulatory interventions; some academics rush to believe banks too. As a result, two prominent recent articles—one by Professor Lauren Willis and another by Professors Bubb and Pildes—are overly pessimistic about the efficacy of consumer financial regulation.³³⁰ These authors start from the premise that banks are sophisticated and consumers naive, and as a result relatively light-touch regulatory interventions can never be effective, because sophisticated

326. Bradsher, *supra* note 128.

327. See Current U.S. Interchange Rates, Host Merch. Servs., <https://www.hostmerchantservices.com/current-us-interchange-rates/> [<https://perma.cc/CN5X-LX6A>] (last visited Aug. 15, 2019).

328. Interview with Anonymous Bank Executive, in Washington, D.C. (Sept. 2017).

329. George J. Stigler, *The Theory of Economic Regulation*, 2 *Bell J. Econ. & Mgmt. Sci.* 3, 3 (1971).

330. See Bubb & Pildes, *supra* note 53; Willis, *supra* note 55.

banks will always pass the costs of regulation on to consumers.³³¹ This criticism is bolstered by the fact that banks say that they will engage in exactly the offsetting behavior that these authors are concerned with. However, when we study what banks do, rather than what they say, we realize that such extreme skepticism about the consumer financial regulatory project is unfounded.

This fact is well illustrated by the overdraft case study. As Professors Bubb and Pildes helpfully point out, consumer markets are not static, and so theoretically we expect firms to adjust to regulation.³³² The magnitude of this adjustment, though, is an empirical question. Just because banks say that consumers will bear the incidence of regulatory intervention does not mean that they will—who bears these costs depends on competitive dynamics in financial markets that banks themselves may not appreciate *ex ante* and certainly have no incentive to honestly convey to regulators if they do understand them.

The perception that banks are sophisticated and offset any “light-touch” regulation leads Professor Willis and Professors Bubb and Pildes to misrely on incomplete data and anecdotal evidence rather than empirically assessing the incidence of the regulations they study. Incidentally, their influential critiques of behavioral policy approaches suffer from a behavioral problem themselves: They are anchored to the prior theory that light-touch regulation is ineffective and rely on confirming evidence, rather than thorough data-driven analysis.

For example, Professor Lauren Willis cites vivid anecdotal evidence as proof of the failure of changes to the overdraft default rule:

Consumers quickly realized that there is an immediate intangible benefit to opting out [of the no overdraft default]—the marketing will stop. The calls and emails will cease, the tellers will stop asking, and those who bank online will be able to navigate directly to their personal account without clicking through a computer screen asking whether they would like to opt out first.³³³

This dire picture is perhaps true of how some banks approached opting consumers in to overdraft following changes to the default rules. For instance, TCF manipulated consumers into opting in to overdraft protection with fear-inducing hypotheticals to convince consumers that failure to opt in would leave them and their families exposed in moments of distress. Branch employees—required to maintain an opt-in rate of

331. See Bubb & Pildes, *supra* note 53, at 1644 (mentioning “naive present-biased consumers”); Willis, *supra* note 55, at 1181–89 (discussing how banks can undermine the goals of regulators by using complex overdraft policies and fees that confuse consumers).

332. See Bubb & Pildes, *supra* note 53, at 1648.

333. Willis, *supra* note 55, at 1188.

80% or more on all new accounts³³⁴—would combat resistance to opt-in by telling customers:

We live in Minnesota too. It is cold outside. You are on the side of the road. Your account has \$50 in it. You know to get a service call it is going to cost you \$80. You have to get it fixed. So you make that call. If you are opted in, we will pay it. You get an overdraft fee. If you don't Opt-In, it declines you. You might get stuck on the side of the road.³³⁵

TCF, though, is the exception, not the rule. It was so reliant on overdraft that its former CEO, Richard Cooper, dubbed his yacht “The Overdraft.”³³⁶ Opt-in rates were more than three times the industry average³³⁷ and so aggressive that the CFPB investigated the bank for improper opt-in practices.³³⁸ Empirical evidence makes clear that overall, though, changes to the default rule were significantly welfare enhancing for consumers. Service charges on deposit accounts dropped by more than 15% immediately following this reform, and banks have not recovered these losses. This sustained decline makes sense given that, as a result of this intervention, only 16% of bank customers are still eligible to incur overdraft fees.³³⁹ Prior to overdraft reform, all consumers were opted in to overdraft protection. Thus, changing this default rule decreased the share of customers even eligible to incur these fees by 84%. Professor Willis’s read of the evidence—that the new overdraft regime is not particularly successful in increasing consumer welfare—is wrong.

Rather than aggressively nudging people toward overdraft as a product, many of the largest financial institutions, concerned about the notoriety of and potential legal liability from overdraft, moved away from it entirely. Bank of America, in a move heralded by the *New York Times* as bringing “an end to the \$40 cup of coffee,” stopped charging overdraft fees for debit purchases.³⁴⁰ Bank of America also introduced a “safe-

334. First Amended Complaint at 9, CFPB v. TCF Nat’l Bank, No. 17-cv-00166, 2017 WL 6211033 (D. Minn. Sept. 8, 2017).

335. *Id.* at 20.

336. Jonnelle Marte, A Former Bank CEO Named His Boat ‘Overdraft.’ Now that Bank Is in Hot Water over the Fees, *Wash. Post* (Jan. 22, 2017), <https://www.washingtonpost.com/news/get-there/wp/2017/01/20/a-former-bank-ceo-named-his-boat-overdraft-now-that-bank-is-in-hot-water-over-the-fees/> (on file with the *Columbia Law Review*).

337. Nathan Bomey, Agency: TCF National Bank Tricked Customers on Overdraft Fees, *USA Today* (Jan. 19, 2017), <https://www.usatoday.com/story/money/2017/01/19/consumer-financial-protection-bureau-cfpb/96772082/> [<https://perma.cc/3L2Q-XF3W>].

338. See, e.g., *TCF Nat’l Bank*, 2017 WL 6211033, at *1 (explaining the CFPB’s response to TCF’s and other banks’ use of automatic overdraft services).

339. See CFPB, Study of Overdraft Programs, *supra* note 35, at 29.

340. Andrew Martin, Bank of America to End Debit Overdraft Fees, *N.Y. Times* (Mar. 9, 2010), <https://www.nytimes.com/2010/03/10/your-money/credit-and-debit-cards/10overdraft.html> [<https://perma.cc/MYW9-YZ5Y>].

checking” product to help consumers who regularly incur penalty fees.³⁴¹ Furthermore, Wells Fargo no longer charges consumers overdraft fees on small-dollar transactions and offers its customers the opportunity to “rewind” overdraft incidents, removing fees for overdraft transactions as long as customers quickly replenish their accounts.³⁴² Citigroup does not charge overdraft fees³⁴³ and JP Morgan also eliminated overdraft fees for small-dollar purchases.³⁴⁴ These large banks are especially relevant, given that together they are responsible for more than 40% of domestic deposits.³⁴⁵ This means that for four out of ten bank customers, postcrisis overdraft savings are even more significant than regulators hoped.

Still, Professors Bubb and Pildes rely on what they call Willis’s “damning account of the failure of this regulatory approach” as evidence not only that the overdraft default rules failed to help consumers but more broadly that behavioral economics “trims its sails” by advocating for choice-preserving interventions.³⁴⁶ Their critique is that since large financial institutions are sophisticated, they have both the resources and the incentives to push consumers toward the choice that is most beneficial to the firm (in this setting, opting consumers into overdraft). In their view, the failure of the overdraft default rule reflects how, generally, light-touch regulatory interventions are doomed to futility. Instead, to help consumers, they suggest regulators need to embrace paternalistic policies, such as a blanket ban on overdraft protection.

Far from a nudge gone awry, behavioral approaches to regulating overdraft were a resounding success. And there is substantial potential for additional behavioral interventions, such as “salience shocks” to alert customers to these fees immediately before they incur them: For example, in the United Kingdom, text alerts to consumers warning about low account balances decreased overdraft incidence by nearly 25%.³⁴⁷ Past critiques of the efficacy of the new default rules illustrate how academics can be misled by analysis that relies on anecdotal evidence.

The implications are significant: These influential critics of behavioral law and economics approaches argue that behavioral policies do

341. Melanie Hicken, *BofA Rolls Out Checking Account for Chronic Overdrafters*, CNN Money (Mar. 6, 2014), <http://money.cnn.com/2014/03/06/pf/bank-of-america-overdraft/index.html> [https://perma.cc/ST34-6UC6].

342. Robert Barba, *Wells Fargo Adds Overdraft Protection with Rewind*, Bankrate (Nov. 21, 2017), <https://www.bankrate.com/banking/checking/wells-fargo-launches-overdraft-rewind/> [https://perma.cc/5WJY-AE2E].

343. *Citi Protects Customers from Unnecessary Overdraft Fees*, Citi (Mar. 10, 2010), <https://blog.citigroup.com/2010/03/citi-statement-on-protecting-consumers-from-unnecessary-overdraft-fees/> (on file with the *Columbia Law Review*).

344. Blake Ellis, *Chase to Scrap Overdraft Fees for Purchases of \$5 or Less*, CNN Money (June 22, 2012), <https://money.cnn.com/2012/06/22/pf/chase-overdraft-fees/index.htm> [https://perma.cc/N7FS-HAHY].

345. Trefis Team & Great Speculations, *Five Largest Banks*, supra note 296.

346. See, e.g., Bubb & Pildes, supra note 53, at 1596, 1655–56.

347. Competition & Mkts. Auth., supra note 44.

not deliver for consumers. As proof, they cite the failures of overdraft reform—except that the new overdraft default rules do achieve their ends and do enhance consumer welfare. Overdraft reform is a thorn in the side of critics of behavioral policy approaches, not a paradigmatic example of its failings. The fact that prominent authors—whose work has prompted responses by regulators³⁴⁸ and garnered widespread media attention³⁴⁹—miss this proves that even thoughtful academics can be misled by relying on their assumptions about how the market will respond to regulation. These assumptions are not baseless: There are theoretical reasons to think banks will work to offset regulation. And banks themselves say that they will offset the impact of regulation. But policy inferences based on what banks say—rather than what we empirically observe that they do—leads to confusion not only about the efficacy of regulations (like the overdraft default rule) but more broadly of an entire regulatory approach (behaviorally motivated consumer financial protection).

Thankfully, in consumer finance in particular, academics have access to a wealth of data. Bank financial data are reported quarterly, and more timely snapshots are available to policymakers like economists at the Federal Reserve. Regulators conduct surveys of consumers to understand a variety of topics ranging from their decision to be unbanked³⁵⁰ to how they choose between payment methods.³⁵¹ Proprietary data from large financial institutions—for example, detailed credit and checking account transaction history³⁵²—allow for inferences about policy efficacy and the limits of consumer rationality. Determining the efficacy of regulation is ultimately an empirical question, and one this Article undertakes with surprising results.

Table 2 below summarizes the lessons discussed in Part II.

348. Peter Orszag & Cass R. Sunstein, Give People Choices, Not Edicts, Bloomberg (Dec. 5, 2013), <https://www.bloomberg.com/opinion/articles/2013-12-05/give-people-choices-not-edicts> (on file with the *Columbia Law Review*).

349. Jill Priluck, The Overselling of Behavioral Economics, Reuters: The Great Debate (Nov. 20, 2013), <http://blogs.reuters.com/great-debate/2013/11/20/the-overselling-of-behavioral-economics> (on file with the *Columbia Law Review*).

350. See, e.g., FDIC, Survey of Unbanked and Underbanked Households, *supra* note 93.

351. See, e.g., Claire Greene & Joanna Stavins, The 2016 and 2017 Surveys of Consumer Payment Choice: Summary Results 12 (Fed. Reserve Bank of Bos., No. 18-3, 2018), <https://www.bostonfed.org/-/media/Documents/Workingpapers/PDF/2018/rdr1803.pdf> [<https://perma.cc/7QJW-Z2KQ>].

352. See, e.g., Peter Ganong & Pascal J. Noel, Consumer Spending During Unemployment: Positive and Normative Implications 1 (Nat'l Bureau of Econ. Research, Working Paper No. 25417, 2019), <https://www.nber.org/papers/w25417.pdf> [<https://perma.cc/K6CZ-UQ7S>] (using de-identified bank account data to find that spending drops significantly following the expiration of unemployment insurance benefits in a way that is inconsistent with rational models).

TABLE 2: SUMMARY OF LESSONS

Overall Lesson	Specific Suggestions for Designing and Evaluating Regulatory Regime	Examples
<p><i>Regulators Should Target Nonsalient Prices:</i> Consumers suffer from behavioral problems (e.g., inattention and overoptimism). Banks exploit by charging high hidden fees.</p>	<p>Direction regulation of nonsalient prices benefits consumers. Salience shock is a novel alternative.</p>	<p>The CARD Act and overdraft reform increase consumer welfare. The proposed \$5 Durbin fee sparks outrage, and the U.K. alert that consumer accounts are low decreases overdraft incidence.</p>
<p><i>Regulators Should Address Inequitable Cross-Subsidies:</i> Essentially all consumer markets feature higher prices for poorer consumers. These higher prices subsidize lower costs for the wealthy.</p>	<p>Consumer protection provides authority for intervention. Evaluate whether regulation increases fairness in consumer markets; not whether regulation benefits all consumers.</p>	<p>UDAAP claims to change interchange market (for example, by limiting antisteering provisions) as alternative to antitrust litigation. Capping overdraft fees could have increased account fees, banning rewards cards may increase retail prices for the wealthy. Even so, these are desirable interventions to increase fairness.</p>
<p><i>Regulators Should Watch What Firms Do, Not What They Say:</i> Banks are incentivized to deter regulators by warning interventions will distort market. Relying on these assertions is a costly mistake.</p>	<p>Listening to banks can lead to poorly designed regulation. Listening to banks can lead to unwarranted pessimism.</p>	<p>Interchange regulation initially targeted credit cards, shifted to debit because banks warned of credit supply effect. Result is intervention that harms consumers. Leading academics believe—as banks warned—that financial institutions offset losses from overdraft default rule, rendering it ineffective. This is inaccurate: Consumers benefitted from intervention.</p>

CONCLUSION

The pain ordinary consumers suffered during the Great Recession highlighted the ways in which financial markets were failing them. Policy-makers responded, and some of the earliest postcrisis reforms sought to

tame consumer financial markets. This Article offers the first empirical analysis of the consumer reform agenda.

This Article illustrates that progressive politicians who cheer all regulation as welfare enhancing are misguided, as are bank executives who warn that consumers will be harmed, not helped, by well-intentioned interventions. The reality is more nuanced, and by drawing lessons from postcrisis regulation in the debit, credit, and overdraft markets, this Article offers a roadmap for how to regulate effectively.

Its lessons are threefold. First, banks understand consumers' behavioral limitations and exploit the fact that many are inattentive and misestimate the likelihood of incurring penalty fees. Specifically, financial institutions often charge exorbitant nonsalient prices without worrying about losing customers. Policymakers should rein in on such pricing practices through regulation.

Second, the consumer finance markets I study feature cross-subsidies running from the low income to the wealthy. Low-income consumers are more likely to bear penalty fees, because they tend to be both less attentive and more likely to overdraft or miss a credit card payment since they have less money in their bank accounts. High-income consumers are also advantaged because they alone have access to the most-attractive financial products, like rewards cards. Because retail prices are uniform, low- and high-income consumers pay the same prices; however, only high-income consumers receive kickbacks in the form of generous rewards. The existence of inequitable cross-subsidization in financial markets justifies intervention on consumer protection grounds.

Finally, I argue that policymakers and academics should be guided by what banks do—not what they say. Financial institutions have every incentive to discourage regulators from curbing their behavior. As such, every time policymakers propose a change, they warn that the result will be higher consumer costs and less access to financial products. Theoretically, it makes sense that banks will offset the impact of regulation: In the contest between sophisticated, optimizing financial institutions and naive, non-optimizing consumers, the power seems to lie with the sophisticates. However, the empirical results in this paper illustrate that financial institutions' assertions about how consumers will end up bearing the costs of regulation are often overstated. These findings are surprising and differ significantly from prior work. In the past, influential legal academics have argued against light-touch regulation, suggesting that more paternalistic approaches are necessary to protect irrational consumers in these markets. This Article corrects this misconception.

APPENDIX: WHY DO INEQUITABLE CROSS-SUBSIDIES EXIST?

Each of the postcrisis interventions studied in this Article feature inequitable cross-subsidization. Practically, less-sophisticated, poorer consumers pay higher prices than their more-sophisticated, wealthier counterparts. These inequities can exist when banks have significant market power, but they can also exist in perfectly competitive markets, and competitive dynamics dictate whether banks or sophisticated consumers bear the incidence of regulation. This Appendix provides a simple conceptual framework to establish the winners and losers from regulation to address cross-subsidies in different settings. It illustrates that intervention to decrease cross-subsidization is always desirable as it benefits unsophisticated consumers, who are currently disadvantaged in financial markets.³⁵³

A. *Shrouded Prices and Perfectly Competitive Markets*

Banks regularly hide certain prices from consumers.³⁵⁴ Card issuers advertise low up-front pricing (for example, the introductory APR in large letters on envelopes to potential customers) but hide add-on costs those same customers are likely to incur (for example, higher interest

353. Some may argue that price discrimination by financial institutions is not inequitable cross-subsidization because it reflects the different costs of serving different types of consumers. For example, low-income consumers may use branch services more, which may result in them bearing overdraft fees to cover the cost of those services. This explanation struggles to explain why different prices should be borne by inattentive, low-income customers instead of their attentive counterparts. Of course, understanding how cross-subsidization interacts with the costs of servicing it is important and merits additional attention. See, e.g., Chris Nichols, *Improving Customer Profitability Without a Profitability System*, CenterState Correspondent Div. (Mar. 13, 2019), <https://csbcorrespondent.com/blog/improving-customer-profitability-without-profitability-system> [<https://perma.cc/P2XR-NMYJ>] (“It is almost impossible for banks to earn excess profits by delivering banking products to indigent people or businesses.”).

354. These insights are related to a long line of both legal and economics literature that considers loss-leader pricing and its equilibrium effects on consumers and firms. See, e.g., Glenn Ellison, *A Model of Add-On Pricing*, 120 *Q.J. Econ.* 585, 589 (2005) (presenting an equilibrium where high shrouded prices are not competed away because there is no incentive for firms to compete on these costs); Gabaix & Laibson, *supra* note 149 (modeling markets with sophisticated firms exploiting consumers’ behavioral biases). Many papers around this time provide empirical evidence on this phenomenon. See, e.g., Stefano DellaVigna & Ulrike Malmendier, *Paying Not to Go to the Gym*, 96 *Am. Econ. Rev.* 694, 694–96 (2006) (noting that consumers who choose monthly gym memberships typically pay more than they would have paid on a pay-per-visit contract because they overestimate their future gym attendance); Sendhil Mullainathan & Andrei Shleifer, *The Market for News*, 95 *Am. Econ. Rev.* 1031, 1031 (2005) (“On topics where reader beliefs diverge . . . newspapers segment the market and slant toward extreme positions. Yet in the aggregate, a reader with access to all news sources could get an unbiased perspective.”); Haiyan Shui & Lawrence M. Ausubel, *Consumer Time Inconsistency: Evidence from a Market Experiment in the Credit Card Market 2–3* (2004) (unpublished manuscript) (on file with the *Columbia Law Review*) (“This ex ante preference [for credit cards with lower introductory rates] becomes puzzling after observing that respondents, ex post, keep on borrowing on this card well after introductory periods.”).

rates when the introductory teaser offers expire and penalty fees for late payments). This framework sheds light on why price shrouding occurs, its consequences, and why it persists in equilibrium.

Consider the consumer checking account. For simplicity, imagine it has two components: a salient price p_s (the monthly maintenance fee on the account) and a nonsalient price p_{ns} , (the overdraft fee charged to a customer for an overdraft incident). Assume p_s is \$90, p_{ns} is \$20. First, note that the existence of price shrouding leads to excessive credit card borrowing,³⁵⁵ excessive use of credit or debit cards to pay for transactions,³⁵⁶ and, in this example, too many checking accounts. How so? Assume there are two types of consumers, high-value consumers who derive a benefit of \$110 from the consumer checking account, and low-value consumers, who derive a benefit of only \$90. All consumers will need overdraft protection, but no consumers think they will. If costs were properly internalized by consumers, only high-value types would purchase checking accounts; however, believing the total cost is only \$90, both high- and low-value types will purchase them.

Now assume awareness of the nonsalient overdraft differs depending on customer sophistication. There are still two types of consumers: sophisticated, who consider both p_s and p_{ns} when they make product decisions, and unsophisticated, who neglect p_{ns} . Each values the checking account at \$100 precisely, Sneaky Bank's total cost of providing a checking account. Sophisticated customers avoid overdraft fees and pay only \$90 for their checking accounts; unsophisticated customers know no better and pay \$110, both the \$90 monthly fee and a \$20 overdraft fee. This numerical example is summarized below.

TABLE 3: SNEAKY BANK EXAMPLE

Sneaky Bank	
Cost	\$100
P_s (fee)	\$90
P_{ns} (overdraft)	\$20
Customer	
Sophisticated pays	\$90
Unsophisticated pays	\$110
Profit	\$0

355. See Cass R. Sunstein, *Boundedly Rational Borrowing*, 73 U. Chi. L. Rev. 249, 249 (2006) (noting that “excessive borrowing, no less than insufficient savings, might be a product of bounded rationality”).

356. Bar-Gill, *supra* note 130, at 1377 (highlighting that “teaser rates lead to excessive pre-distress borrowing, which in turn renders the consumer more vulnerable to financial hardships”).

But what is to stop a competing bank from entering and being transparent about its pricing structure? If Transparent Bank offers a \$100 price, inclusive of overdraft, and advertises that it does not engage in sneaky price shrouding, newly educated consumers would still prefer checking accounts at Sneaky Bank: Because they are now sophisticated, they will get a product worth \$100 for only \$90, plus some inconvenience cost to avoid overdrafting.³⁵⁷

The result is an equilibrium in which Sneaky Bank charges high add-on overdraft fees to exploit unsophisticated customers, and sophisticated customers take advantage of Sneaky Bank by avoiding high add-on costs and getting below-cost checking accounts. Unsophisticated consumers pay more, thereby subsidizing their sophisticated counterparts.

Sophistication is costly on two dimensions: Sophisticated consumers must (1) read through complex checking account contracts to locate non-salient terms and (2) be vigilant in avoiding fees—for example, by regularly verifying that their account balances are positive, or by carrying cash to make sure they will never incur overdraft fees. But as long as the total cost of understanding contract provisions, checking account balances, and keeping cash handy is below \$10, sophisticated consumers will still prefer expending this effort to Transparent Bank's \$100 account.

What role can regulatory intervention play?³⁵⁸ Consider a regulator that is aware of shrouded prices and heterogeneous customer sophistication and intervenes, perhaps by capping the overdraft fee at \$0.³⁵⁹ Now, banks can no longer charge p_{ns} but still need to cover their \$100 costs in equilibrium. As such, Sneaky Bank would fully offset this price regulation through an increase in p_s :

357. This example is a simplistic version of the model presented in Gabaix & Laibson, *supra* note 149. The authors refer to the failure of the transparent seller to gain market share as illustrative of the “curse of debiasing”: “Sophisticated consumers tend to be less profitable because they know how to avoid unnecessary costs. In such cases, firms do not have an incentive to pursue debiasing, and competition will not lead consumers to behave rationally.” *Id.* at 507–09.

358. Gabaix and Laibson briefly consider regulatory solutions for shrouded pricing, for example, enhanced disclosure and warning customers to pay attention to hidden costs. *Id.* at 530. They are not very encouraging about the potential of regulatory price caps: “[E]ven if good theoretical arguments exist for regulating shrouded fees, such regulations put us on a slippery slope that may produce great unintended harm. Mark-up regulations are often counterproductive.” *Id.* at 531. I heed this caution and attempt to highlight cases where price caps are likely to be minimally distortive.

359. This is an extreme example, and illustrative only. For reasons discussed in section II.B.2 above, I believe capping overdraft fees at \$0 is undesirable because it will eliminate a product that consumers may want despite its high cost. A more desirable cap would be to restrict overdraft fees to the cost of offering overdraft protection.

TABLE 4: SNEAKY BANK IN A PERFECTLY COMPETITIVE, REGULATED MARKET

Sneaky Bank	
Cost	\$100
P _s (fee)	\$100
P _{ns} (overdraft)	\$0
Customer	
Sophisticated pays	\$100
Unsophisticated pays	\$100
Profit	\$0

In equilibrium, this regulatory intervention eliminates the cross-subsidy of the sophisticated by the unsophisticated (that is, of the wealthy by the low-income).³⁶⁰ This benefit alone is sufficient to justify regulatory intervention on distributional grounds: A price cap can tilt the scales away from sophisticated consumers who have access to the checking account at a price below cost because of their less-sophisticated counterparts. As an added benefit, regulation also eliminates costly behavior by the sophisticated, like spending copious time checking costly account balances to avoid being overdrawn. Also, tackling price shrouding eliminates any inefficient overuse of the consumer checking account product. A consumer will weigh the marginal benefit of a checking account against its *true* cost, not an underestimated cost that ignores nonsalient price attributes.

Thus, even in a perfectly competitive world, the existence of price shrouding suggests a role for regulatory intervention to eliminate inequitable cross-subsidies. Note that this Article proposes behavioral differences between the two groups of consumers in this framework: sophisti-

360. One question for those interested in these topics is why greater product diversity does not exist in the checking account market. For example, in this simplified hypothetical, it is possible to imagine a checking account without any overdraft protection being offered at a lower fee than a checking account with overdraft protection, because banks bear costs for offering overdraft protection. Literature in economics suggests that imperfect competition can result in too little (but also too much) product diversity, depending on consumer demand. See, e.g., Avinash K. Dixit & Joseph E. Stiglitz, *Monopolistic Competition and Optimum Product Diversity*, 67 *Am. Econ. Rev.* 297, 297 (1977) (noting that in scale economies, greater efficiency can be achieved by producing large quantities of fewer goods, but this “leaves less variety, which entails some welfare loss”); A. Michael Spence, *Monopoly, Quality, and Regulation*, 6 *Bell J. Econ.* 417, 428 (1975) (concluding that in cases of unregulated monopolies, the “selection of product characteristics is likely to be biased away from the social optimum”). Interestingly, Bank of America recently reduced its product diversity, eliminating its low-cost eBanking checking accounts. See Colin Dwyer, *Bank of America Ends Free Checking Option, A Bastion for Low-Income Customers*, NPR (Jan. 24, 2018), <https://www.npr.org/sections/thetwo-way/2018/01/24/580324251/bank-of-america-ends-free-checking-option-a-bastion-for-low-income-customers> [<https://perma.cc/6TB8-F7Q7>].

cated and aware of nonsalient prices and unsophisticated and unaware. An alternative is a rational framework: Some consumers have low marginal utility of income and thus are likely to use overdraft protection rather than expend energy reading contracts, hoarding cash, or searching for cheaper checking account alternatives. That is, *wealthy* consumers are likely to take advantage of an expensive overdraft add-on, and *low-income* consumers are likely to avoid it. This “traditional” explanation³⁶¹ also generates a cross-subsidy that can be addressed by regulation, but it runs in the opposite direction, from the wealthy to the low income, and so the distributional case for intervention is less clear. However, this traditional model appears unlikely to describe the reality of consumer finance markets, where consumers who bear penalty fees are disproportionately poorer and less financially sophisticated. With the behavioral cross-subsidy running from the less sophisticated to the more sophisticated, regulatory intervention can be justified on fairness and distributional grounds.

B. *Shrouded Prices and Imperfect Competition*

Next, consider a world *without* perfect competition, with banks that possess substantial market power. At least in the short run, banks in an imperfectly competitive market are able to generate positive profits, or rents.³⁶² So, for example, Sneaky Bank can charge \$105 for its checking account, even though it costs only \$100 to provide. Without regulatory intervention, sophisticated consumers pay \$105, and unsophisticated consumers pay a whopping \$125 for their checking accounts.³⁶³

361. So termed by Ellison, *supra* note 354, at 586.

362. The particular nature of the nonperfectly competitive market (monopoly versus monopolistic competition) will dictate whether firms are able to generate quasi-rents (positive profits in the short run that will be competed away over time) or long-run rents.

363. The analyses in Agarwal et al., *Regulating Consumer Financial Products*, *supra* note 19, and Bar-Gill & Bubb, *supra* note 19, are closely related to this example. In their studies of the CARD Act, both sets of authors point to (1) the shrouded nature of many of the fees the CARD Act sought to regulate and (2) the imperfectly competitive card-issuer market as theoretical explanations for their finding only limited offset of CARD Act losses. See Agarwal et al., *Regulating Consumer Financial Products*, *supra* note 19, at 152–53; Bar-Gill & Bubb, *supra* note 19, at 971–72.

TABLE 5: SNEAKY BANK IN AN IMPERFECTLY COMPETITIVE, UNREGULATED MARKET

Sneaky Bank	
Cost	\$100
P_s (fee)	\$105
P_{ns} (overdraft)	\$20
Customer	
Sophisticated pays	\$105
Unsophisticated pays	\$125
Profit	\$30

The difference between this imperfectly competitive case and the baseline of perfect competition is that now the beneficiary of the unsophisticated consumers' irrationality is Sneaky Bank, not the sophisticated consumers.

Why could sophisticated consumers not demand a lower price by threatening to educate the unsophisticated? This threat is not obviously credible. Sophisticated consumers would have to coordinate to spread their message; and, even if they were able to, it is likely that unsophisticated consumers would trust Sneaky Bank, the provider of their checking accounts, over the less-familiar sophisticated.

A cap on the shrouded overdraft fee can help decrease checking account costs for the unsophisticated consumer. Imagine the same regulatory intervention as above: Regulators cap overdraft fees at \$0. In the perfectly competitive world, Sneaky Bank has to raise its price to cover its marginal costs. In this imperfectly competitive world, Sneaky Bank has positive profits and may not offset the losses from the non-salient price cap entirely,³⁶⁴ because its customers decide whether to open (and maintain) a checking account based on the *salient* monthly fee. That is, Sneaky Bank faces a trade-off: Raise salient fees for everyone and lower the quantity of checking accounts it provides, or keep salient fees as they are and still generate positive, albeit lower, profits than it would generate in the absence of price regulation.

Note that the possibility of incomplete offset is attributable to the fact that some consumers ignore nonsalient prices. There would be no similar tradeoff if regulators instead targeted *salient* prices—as long as there are other aspects of the pricing bundle to adjust, banks will fully offset losses.

364. The degree of bank offset will depend on the elasticity of consumer demand.

TABLE 6: SNEAKY BANK IN AN IMPERFECTLY COMPETITIVE, REGULATED MARKET

Bank	
Cost	\$100
P_s (fee)	\$105
P_{ns} (overdraft)	\$0
Customer	
Sophisticated pays	\$105
Unsophisticated pays	\$105
Profit	\$5

C. *Extension: A World Without Price Shrouding*

What if no salience problem exists, and yet undesirable cross-subsidies remain? This describes the interchange market. Suppose merchants pay a set fee of \$2 in interchange expense for processing a credit transaction. When a consumer buys a \$100 pair of shoes with cash, all of the money goes to the merchant; but when the consumer pays with credit, the merchant only receives \$98 (\$100 minus \$2 of interchange expense). The merchant would like to pass on the \$2 in interchange expense to the card-using consumer directly, but this is illegal.³⁶⁵ So instead, the merchant charges \$101 to both consumers. If all consumers paid in cash, the merchant would set prices at cost (\$100). So, unsophisticated consumers, without access to credit cards, end up paying higher prices to cover interchange costs associated with their wealthier counterparts' credit instruments. That is, they subsidize the rewards these consumers accrue.

Regulatory intervention can usefully address this cross-subsidy. For example, by facilitating merchant price discrimination, regulators can help ensure that the customers who benefit from transacting with rewards cards (the sophisticated) pay higher retail prices. Importantly, this is not a Pareto improvement, where one class of consumers is made better off without hurting any other group. In a perfectly competitive

365. This is a simplification, although legal and contractual barriers do exist to price discrimination—for example, state-level prohibitions on merchant surcharging and contract terms that disallow merchants from steering consumers toward cheaper forms of payment. Such measures were at the heart of two recent Supreme Court cases involving card networks. See *Ohio v. Am. Express Co.*, 138 S. Ct. 2274, 2287–90 (2018) (declining to find that antisteering contract provisions precluding merchants from discouraging the use of a company's credit cards had sufficient anticompetitive effects to trigger an antitrust violation); *Expressions Hair Design v. Schneiderman*, 137 S. Ct. 1144, 1151 (2017) (holding a New York statute regulating how merchants communicate credit card surcharge pricing implicated First Amendment concerns).

market, Pareto improvement is not possible. Instead, sophisticated consumers are being made worse off. They no longer pay below-cost prices, with rewards like airline miles subsidized by high retail prices paid by the unsophisticated. Although not welfare improving overall, regulation increases fairness in this market by forcing consumers who benefit from rewards cards to bear the costs of these financial transactions.

TABLE 7: SNEAKY BANK IN A PERFECTLY COMPETITIVE MARKET WITH NO SHROUDING

Merchant Cost	\$100
<i>Option 1: \$100 retail price</i>	
Customer pays	\$100
Merchant receives	
Sophisticated (credit)	\$100- \$2=\$98
Unsophisticated (cash)	\$100
Profit	(\$2)
<i>Option 2: \$101 retail price</i>	
Customer pays	\$101
Merchant receives	
Sophisticated (credit)	\$101- \$2=\$99
Unsophisticated (cash)	\$101
Profit	\$0
<i>Option 3: Regulation allows price discrimination</i>	
Customer pays	
Sophisticated (credit)	\$102
Unsophisticated (cash)	\$100
Merchant receives	
Sophisticated (credit)	\$102- \$2=\$100
Unsophisticated (cash)	\$100
Profit	\$0