Class Actions and the Economics of Internal Dispute Resolution and Financial Fee Forgiveness

Manhattan Institute Report (Preliminary), August 2016

Jason Scott Johnston, Henry L. and Grace Doherty Charitable Foundation Professor, University of Virginia Law School

Executive Summary

In May 2016, the federal Consumer Financial Protection Bureau (CFPB) published a proposed rule that would prohibit arbitration clauses in consumer financial contracts that foreclosed class-action remedies. The CFPB based this decision, in part, on its finding that individual dispute-resolution mechanisms are insufficient to enforce consumer protection, as evidenced by "the relatively small number of arbitration, small claims, and Federal court cases" brought over consumer finance claims.[1]

In its analysis justifying its proposed rule, the CFPB acknowledged that financial institutions have market incentives to refund fees to customers who complain; but it worried that "if two consumers bring the same dispute to a company, the company might resolve the dispute in favor of a consumer who is a source of significant profit while it might reach a different resolution for a less profitable consumer."[2] Class-action litigation, the CFPB found, not only transfers more dollars in the aggregate to consumers but also "benefit[s] consumers not included in a particular class settlement because, as a result of a class settlement, companies frequently change their practices in ways that benefit consumers who are not members of the class."[3] In reaching the latter conclusion, the CFPB explicitly pointed to a federal court decision in the Northern District of California, *Gutierrez* v. *Wells Fargo*,[4] which changed the bank's nationwide overdraft practices.[5]

This report argues that the CFPB is correct that arbitration cases are relatively rare, that financial companies have incentives to—and often do—resolve fee disputes according to customer profitability, and that class-action litigation affects company behavior. Where the report disagrees with the CFPB is in the latter's conclusion that prohibiting contractual clauses that preclude class-action litigation benefits consumers. The CFPB's finding, like the *Gutierrez* court's decision, rests on a fundamental misunderstanding of banks' and other institutions' economic framework for consumer finance products and how that framework intersects with consumer welfare.

After looking in some depth at the actual fee structure that financial institutions use, as well as the overdraft litigation in *Gutierrez* upon which the CFPB relied, the report

performs an economic analysis examining how a financial institution's overall objective of maximizing profits influences its discretion in determining whether to waive or impose a transaction-based fee on a consumer. This model suggests that the market incentive to retain a customer's business generates substantial incentives for financial institutions to forgive fees to complaining customers. Thus, the relative infrequency of arbitration over consumer finance disputes makes sense: under the model, the firm's market-driven incentive to avoid loss of business is stronger than the incentive created by a costless and perfectly accurate arbitration regime.

Moreover, the model suggests that financial institutions have strong incentives to invest in information about customer profitability—as determined by average bank balances and propensity to borrow on overdraft lines or engage in other costly fee-triggering transactions—in deciding whether to waive fees. This investment in information benefits some customers while harming none: it satisfies the Pareto criterion for improving social welfare by making some people better-off while making none worse-off.

The report then applies the model to class-action litigation, which mandates broader fee forgiveness not according to contractual language but due to other norms, such as state consumer-protection laws. Such litigation unbundles the tailored regime of fee forgiveness based on account information, so that banks can no longer use customer profitability information in a way that maximizes profits—lessening the incentive to gain such information. Because class-action liability amounts to involuntary lessening of transaction fees that banks would otherwise collect from low-balance, high-transaction-volume accounts, customers must have higher balances or pay other fees to be profitably maintained. Thus, class-action liability is likely to harm the customers it is supposed to help, as banks respond competitively by raising minimum-balance requirements or otherwise modifying fee structures and fee-forgiveness programs.

In fact, large financial institutions have responded as the model would suggest. Free checking accounts have now become a thing of the past. More precisely, major banks now charge monthly fees for checking accounts that are waived only if customers maintain a minimum daily balance.

I. Introduction

On May 5, 2016, pursuant to its authority created under the Dodd-Frank Wall Street Reform and Consumer Protection Act,[6] the federal Consumer Financial Protection Bureau proposed a rule that would prohibit consumer finance contracts from containing arbitration clauses that foreclosed class-action remedies. Dodd-Frank had required the CFPB to study "the use of agreements providing for arbitration . . . in connection with the

offering or providing of consumer financial products or services," and the legislation authorized the agency to "prohibit or impose conditions or limitations on the use of [such] agreement[s]" if the agency found it to be "in the public interest and for the protection of consumers."[7]

The CFPB's proposed rule forbids consumer financial-service providers from seeking to rely on any pre-dispute arbitration clause until a "presiding court has ruled that the case may not proceed as a class action."[8] The proposed rule requires any such arbitration clause to include the language: "We agree that neither we nor anyone else will use this agreement to stop you from being part of a class action case in court. You may file a class action in court or you may be a member of a class action even if you do not file it."[9] The new rule applies to hosts of consumer finance products and services, including consumer credit, automobile leases, debt-management and debt-settlement services, consumer-credit reporting, check cashing and collection, and debt collection.[10]

In promulgating the proposed rule, the CFPB discusses evidence from its own March 2015 Arbitration Study that indicates a "relatively small number of arbitration" claims:[11] over the 2010–12 study period, only about three dozen consumers received arbitration awards, totaling only about $170,000 in arbitration before the American Arbitration Association. Moreover, the CFPB found that there were only about two dozen small consumer arbitrations (ones with less than $1,000 claimed by the consumer as damages). Comparing this figure with its estimate that 29 million consumers shared in over $1.1 billion in class settlements over (roughly) the same period, the CFPB's May 2016 rule proposal argues that arbitration is ineffective as an instrument for compensating consumers—especially in small-dollar disputes—whereas class-action lawsuits both compensate millions of consumers and deter firms from wrongful behavior.

In a critique of the CFPB's 2015 Arbitration Study, published by the Mercatus Institute, Todd Zywicki and I argued that a paucity of small-dollar arbitrations does not necessarily indicate that consumers who suffer small-dollar harms go uncompensated. Banks and other financial institutions have made very large investments in their own internal dispute-resolution systems. When consumers complain, banks and other financial institutions process and respond to their complaints online and through human-staffed call centers that comprise such systems. Typically, consumers complain about fees and charges, such as late fees on a credit-card bill or an overcharge fee for a check that a bank paid even though the consumer did not have sufficient funds to cover it.

While there is no systematic empirical evidence, the evidence that does exist shows that very often, financial institutions respond to such complaints about fees and charges by refunding the fee or charge. Consider, for example, the evidence adduced in *AT&T* v.

Concepcion, the 2010 Supreme Court decision holding that the Federal Arbitration Act preempted the California Supreme Court's attempt to declare arbitration clauses in consumer contracts unenforceable on public-policy grounds (a decision that would be abrogated in part by the CFPB's proposed arbitration rule). AT&T produced evidence that it had refunded over $1.3 billion in response to customer complaints during the February 2007–January 2008 period alone. Evidence from a midsize bank provided to Zywicki and me for our critique of the CFPB's 2015 study indicated that, 70%–90% of the time, the bank refunded fees in response to consumer complaints. This evidence suggests that there may be few small-dollar arbitrations because there are few small-dollar disputes that the financial institutions do not resolve by their own internal dispute-resolution process.

The CFPB's own consumer survey, reported in its 2015 study, showed that financial institutions have a strong market-driven incentive to make such refunds. The CFPB asked consumers what they would do if they complained to a credit-card company about an incorrect charge assessed against them and the company failed to refund the charge. Fewer than 2% of respondents to this survey said that they would seek legal advice or consider filing a lawsuit. But almost 60% of those surveyed said that that they would cancel their account with the credit-card company and take their business elsewhere.

In its May 2016 proposed rule, the CFPB explicitly discusses Johnston and Zywicki's evidence that financial firms respond to market incentives by often refunding fees and charges.[12] The CFPB's response to that evidence in the rule-making is to say that "based on its experience and expertise," refunds and informal dispute resolution are "uncommon," and, when they do occur, they may be based largely on whether a particular consumer is profitable for the bank.[13] In the CFPB's view:

> [W]here consumers do make complaints informally, the outcome of these disputes may be unrelated to the underlying merits of the claim. Nothing requires a company to resolve a dispute in a particular consumer's favor, to award complete relief to that consumer, to decide the same dispute in the same way for all consumers, or to reimburse consumers who had not raised their dispute to a company. Regardless of the merits or of similarities between the complaints, the company retains discretion to decide how to resolve them. For example, if two consumers bring the same dispute to a company, the company might resolve the dispute in favor of a consumer who is a source of significant profit while it might reach a different resolution for a less profitable customer. Indeed, in the Bureau's experience it is quite common for financial institutions (especially the larger ones that interact with the greatest number of consumers) to maintain profitability scores on each customer and to cabin

> the discretion of customer service representatives to make adjustments on behalf of complaining customers based on such scores.[14]

As this quotation indicates, in the CFPB's view of the world, one cannot rely on a bank's incentives to refund fees to consumers because those incentives are driven by characteristics of the customer and not the complaints raised by the customers. In particular, the CFPB argues, banks exercise their discretion to resolve disputes based on customer profitability scores, not on the "merits or similarities between the complaints."

According to the CFPB, class-action litigation fills the gap provided by the absence of such resolution "on the merits." In the CFPB's view, class-action lawsuits "benefit consumers not included in a particular class settlement because, as a result of a class settlement, companies frequently change their practices in ways that benefit consumers who are not members of the class."[15] In particular, the CFPB substantially relies on the settlements in class actions challenging the process by which banks ordered transactions for purposes of determining overdraft fees, which, according to the May 2016 proposed rule, not only brought about $1 billion in cash relief to class members but also resulted in many financial-company defendants agreeing to change the way they processed transactions for two or three years—a change that the agency deems worth billions of dollars more to consumers. In particular, the CFPB pointed to a seminal federal court decision in the Northern District of California, *Gutierrez* v. *Wells Fargo*,[16] which changed the bank's nationwide overdraft practices.[17]

In this report, I argue that the CFPB fundamentally misunderstands consumer financial contracting when it presumes that banks should ignore the characteristics of individual consumers in its business dealings with them. To the contrary, by tailoring fee and charge forgiveness to individual customer profitability, banks have increased their own profitability *and* the availability of such products to consumers. It is only because banks have invested enormous amounts of money to generate fine-grained information on how different consumers are using financial products—and then have used that information in customer-complaint resolution—that financial products have become a mass product, available to consumers of all income levels rather than just the wealthiest.[18] By forcing bank contracts to permit class-action litigation, the CFPB's proposed rule substantially reduces the incentive to gather such information and serve a broad cross-section of consumers.

Section II of this report examines the actual fee structure that financial institutions use; it finds that the use of overdraft and other discretionary fees has served to permit banks to offer free checking accounts—i.e., those without monthly fee or minimum-balance requirements—to a broad array of customers. As I show with select examples from the credit-card and checking-account industries, the language of consumer financial

contracts—which repeatedly say that a bank "may" calculate or impose a particular fee or charge—is specifically designed to give financial institutions the discretion to waive fees and charges on a case-by-case basis.

Section III looks at the facts of the *Gutierrez* case, the decision that spurred the overdraft settlements upon which the CFPB relied heavily in arguing for its rule. In *Gutierrez*, the bank's contract clearly gave it the discretion to compute fees as it did. The judgment against the bank in that case, reached after a bench trial, was justified by the court on the ground that, when the bank used the word "may" to describe practices that it had already chosen to follow, it was deliberately deceiving consumers. This decision reflected the judge's complete failure to understand that provider discretion is crucial to how financial contracts further consumer welfare. (In fairness to the court's *Gutierrez* ruling, I am not aware of any economic analysis that would unpack how a financial institution's overall objective of maximizing profits would influence its discretion in determining whether to waive or impose a transaction-based fee on a consumer.)

In **Section IV**, I construct a simple economic model within which one can uncover some of the key incentives. The model captures the important stylized fact that customers vary in the balances that they carry and the likelihood of incurring fees in the future. Banks forgive some fees because if they do not, they may lose the business of profitable, high-balance customers. As my model shows, when the bank maximizes profits in its fee-forgiveness decisions, customers who carry low balances and incur a large number of fee-incurring transactions will not have their fees forgiven. Although arbitration serves as a useful backstop supplementing market incentives, the market incentive predominates.

By raising the risk that some portion of any fee that a bank assesses may have to be paid back in the form of a class-action settlement, the CFPB's rule represents a form of random *ex post* fee forgiveness that has nothing to do with customer profitability and obviates the need for banks to invest in costly but informative *ex post* resolution systems. On the margin, the prospect of such class-action liability deters banks from dealing with low-balance customers, for it is such customers who pay the fee most often. Early evidence suggests that, as the model would predict, banks are responding to the CFPB's rule by reducing access to consumer finance for customers unable to maintain sizable balances or afford monthly fees.

II. Customer Choice and Bank Profits

When it comes to consumers, a bank's revenues and costs vary with the product line and with the consumer. It is a distinctive feature of consumer financial products that a bank's

revenues and costs vary with the consumer's own choices. This is true for virtually all consumer financial products:

> In retail banking, revenue is generated in two main ways. First, revenue is derived from the margin the bank earns on its lending and investment activities. Secondly, revenue from fees for transactions, credit cards, etc. needs to be included too. Customer profitability analysis can be conducted on activity-based accounting principles. As many costs as possible are set against the relationship with each customer and then the costs are deducted from the revenue the bank earns from that customer. The resultant positive or negative amount is profit or, more correctly, contribution.[19]

The role of customer choice and behavior in determining customer profitability is important for all banking products. Because the regulation of bank lending and investment does not generally implicate the core issues addressed in this report, I put aside those sources of bank revenue and focus instead on credit cards and checking accounts.

Credit Cards

There are three sources of bank revenue from credit cards: fees charged to cardholders, interest on outstanding credit-card loan balances, and interchange fees. The last are an important—though poorly understood—source of revenue for banks that issue credit cards. Such banks do not pay merchants that accept credit cards the entire amount of the purchase, but instead subtract a fee. For example, if the consumer's purchase is for $100, the merchant only receives $97 from the issuing cardholder's bank. The remaining $3 that the consumer eventually pays is split between the issuing bank that is lending the consumer the $100 and the merchant's bank—which acts as intermediary, transmitting the request for funds (typically through Visa or MasterCard) to the issuing bank, and then crediting the funds when transferred by the issuer to the merchant's account.

Interest income is the second source of revenue on credit cards. According to the Federal Reserve's Quarterly Report of Credit Card Interest Rates, the interest rate paid on credit cards has declined since 1995, when it was around 16%, to around 14% in 2016; but over the past two decades, the rate has never been lower than about 12% and so has been remarkably high and stable. Not every credit-card holder pays interest. Credit-card holders who pay their entire balance each period and do not carry balances forward from one period into another do not pay interest charges. For such cardholders, "transactors" (whose accounts made up 29% of the market in mid-2016),[20] credit cards are not only an extremely versatile means of payment; they also represent interest-free loans for the duration of the account grace period.

If an account holder does not pay her entire balance, then she pays interest starting from the date of purchase. Such account holders, "revolvers," carry a monthly balance. As of March 2016, they made up 42% of all credit-card accounts. Balances on revolver accounts often accumulate. Such credit-card loan balances are not secured by collateral from the consumer; as creditors, issuing banks are junior to all secured consumer creditors (such as banks that have made auto loans or home-mortgage lenders). Every credit-card customer thus poses a risk of default: to manage this risk, issuers screen applicants using standard FICO scores as well as internal, firm-specific risk measures. As recently summarized by the Federal Reserve Board:

> In soliciting new accounts and managing existing account relationships, issuers segment their cardholder bases along a number of dimensions including by risk characteristics, offering more attractive rates to customers who have good payment records while imposing relatively high rates on higher-risk or late-paying cardholders. Card issuers also closely monitor payment behavior, charge volume, and account profitability and adjust credit limits accordingly to both allow increased borrowing capacity as warranted and to limit credit risk.[21]

Credit-card issuers set an initial interest rate and other card terms for customers of a given risk profile. The consumer continues to pay that rate so long as she borrows and pays within the card's contractual terms. However, as the Federal Reserve explained in its recent report to Congress, "[i]f the borrower fails to meet the plan requirements, for example, the borrower pays late or goes over their credit limit, the issuer may reprice the account reflecting the higher credit risk revealed by the new behavior."[22]

Fees are the final source of revenues on credit cards. While total interest revenue has increased only slightly during 2012–15 (from $67.1 billion to $70.4 billion),[23] revenue from fees has gone up at almost twice that rate ($82.5 billion to $94.3 billion). A survey of 100 of the most widely held general-purpose credit cards found that the average credit card has six fees.[24] These included the nearly universal late-payment (ranging from $10 to $49, with $38 the most common) and cash-advance fees (typically $10 or 5% of the cash advanced), the common balance-transfer fees (of the lesser of 3% of the amount transferred or $5 or $10), and returned-payment fees (around $35). A minority of cards surveyed charged annual fees ($25–$450).

Competition has clearly affected what sorts of fees are charged, with an increasing number of cards dropping the (standard 3%) foreign-transaction fee. Regulation has also changed the fee structure. While it was once standard for issuers to charge over-limit fees—fees if cardholders made a charge over the contractually specified credit limit—under the 2009 CARD Act, the default rule is that there are no over-limit fees; even when

a consumer expressly agrees to such fees, they are limited. Rather than offering the option to opt in to over-limit fees, consumer (as opposed to business) credit-card issuers simply dropped the possibility of an opt-in to over-limit fees.[25]

Credit-card fees may be—and often are—waived by the issuing bank. A recent survey found that 86% of customers had a credit-card late-payment fee reversed when requested.[26] The same survey[27] found that only 28% of respondents asked for such a fee waiver and that unemployed customers had roughly the same probability of getting a fee reversal as did employed customers. For good customers—those with a history of paying off their credit-card balances in full in timely fashion—issuers have an incentive to help customers get through temporary financial hardship, not to make things worse by assessing fees. The cardholder's credit rating does appear to affect an issuer's decision on whether to reverse a fee.[28] This is likely because card issuers want to avoid waiving fees for cardholders who are unilaterally extending the term of their credit lines by repeatedly paying late.

Checking Accounts

Moving beyond credit cards, ordinary demand deposits are, of course, a source of funds that banks lend and invest, earning a spread equal to the cost of such funds and return on investment. Banks may pay interest on such accounts; but the main value of depositing money with a bank for many depositors is that a banking account provides payment methods—most importantly, checking accounts and debit cards. These payment methods can also be a source of bank revenue.

Until recent decades, checking accounts were not free. In 1991, shortly after a small number of banks introduced free checking accounts, the Federal Reserve promulgated Regulation DD, defining a "free" checking account as one with no minimum balance, no set monthly fee, no excess activity fee, and no per-item fees.[29] While the regulatory definition of a free checking account has changed somewhat, by the early 2000s, even the biggest banks had begun to offer and promote free checking accounts.[30] Of course, it costs money for banks to provide services to checking-account holders: if literally free, free checking accounts, especially if small, would have been clear money losers for banks. Banks offered such money-losing accounts because they were cross-subsidized by large deposit balances and brought customers in the door, so that banks could cross-sell other, more profitable, products.[31]

Such cross-selling alone is not enough to make checking accounts profitable. Over time, checking accounts have become clear money losers for banks. Strunk, a financial-services consultancy, has estimated that pretax income per checking account went from

$12.59 in 1992 to losses of $47.23 in 2002 and $196.46 in 2012.[32] A study by another financial-industry consultant put the 2012 loss per checking account at $81.[33] On average, checking accounts are now money losers for banks.

This does not mean that every checking-account holder loses money for a bank. As one management textbook explained in 2006:

> [S]everal years ago, banking industry giants like Wells Fargo and Washington Mutual began to identify customers who kept low balances and took advantage of free checking by making excessive transactions, teller visits or calls to customer service. Computer systems flagged these customers so that they would incur service charges for overdrafts and other activities that normally might be waived for more profitable customers.[34]

In other words, as information technology allowed banks to precisely track individual customer balances and product usage, banks began to identify profitable customers, as well as charge fees to unprofitable customers that might be waived for more profitable customers. Banking consultants have indeed urged banks to effectively "fire" their unprofitable customers by charging fees (or modifying interest rates) to induce those customers to close their accounts.[35]

By 2015, banks were charging fees for transactions that are unilaterally customer-initiated, such as cash withdrawals from ATMs owned by other banks, excessive activity fees, and overdrafts or insufficient-funds fees. Banks also charge fees for various transactions that customers must arrange with a bank ahead of time, such as cashier's checks, wire transfers, and stop-payment orders.[36]

One of the most important bank fees that depend upon the customer's unilateral choices and behavior are fees for overdraft coverage. This a fee that the bank charges when it pays a check or debit transaction that the consumer does not have sufficient funds in her account to cover. As a historical matter, banks provided overdraft coverage—paying checks that would otherwise bounce and be returned to the merchant—only on an ad hoc and discretionary basis for high-income customers.[37] By the mid-2000s, however, the default of no overdraft coverage had reversed, with 76.9% of large (over $1 billion in assets) banks providing automatic overdraft coverage.[38] The reason for this switch: "You know how it works: A customer bounces a check, the bank imposes a fee and returns the check to the merchant, who imposes a fee and redeposits it to the bank; the check bounces again and goes back to the merchant, who then imposes another fee and makes angry phone calls to the customer, who then has to come pick up the check and pay with cash. The total time, fees, hassles and embarrassment amount to a lot more than the typical $25 bank fee."[39]

Under automatic overdraft coverage programs, banks charge a fee but pay overdrafts up to a threshold. Overdraft coverage is not free to banks. Overdraft coverage is a loan of funds to the consumer account holder; historically, 3%–5% of such loans are not paid, causing an average loss per bad account of $310 during 2001–05.[40] Typically, losses on overdraft loans are not caused by repeat overdraft customers. Rather, they arise from new accounts that are under three months old, that are opened with the minimum required balance, that quickly incur several overdrafts, and that are then abandoned. It seems difficult for banks to predict at the time an account is opened which customers will eventually default on overdraft loans.

Despite these costs, banks have continued to offer automatic overdraft coverage because it is clearly a service that customers value. Not all customers use overdraft protection. Indeed, according to surveys done by the FDIC and ABA, about 80% of bank customers never overdraw and the vast majority of customers who do overdraw do so fewer than four times per year.[41] However, customers who do frequently overdraft value the default protection. In a 2013 study, the CFPB found that 45% of customers who had more than 10 overdraft transactions during the first six months of 2010 had, by the end of that year, taken the time and effort to opt in to overdraft coverage for overdrafts caused by one-time debit-card transactions (as the law now requires and as explained below).[42] By contrast, only 11% of accounts with no overdrafts during that period chose to opt in to debit-card overdraft protection.

As a banking-industry consultant explained, when it comes to the frequency with which a customer engages in a transaction triggering automatic overdraft coverage, there seem to be two distinct groups of customers. For the minority of frequent overdrafters, “it may be worth it to pay a fee to their bank if it gives them other benefits, such as avoiding late fees or other consequences resulting from late payments on their mortgage or credit card accounts.” And for the vast majority of customers, who never intend to overdraft (and who may mistakenly overdraft only a handful of times per year), “automatic coverage provides piece of mind for the occasional lapse or mistake.”[43]

It is difficult, if not impossible, for banks to predict what sort of overdraft users are opening an account. The only variable with any predictive value is the customer’s credit score. No other demographic information, including income, helps to predict overdraft likelihood.[44] With overdraft fees, as with other bank fees, the market has dictated a regime in which the fee is imposed unless the customer complains. And customers do complain. When Bank of America proposed a $5-a-month fee for debit-card use in 2011, more than 300,000 consumers signed an online letter asking the bank to drop the fee.[45] Calling a 20% increase in closed accounts around the time of the proposed fee “some

impact from the $5 fee," CEO Brian Moynihan explained that "that's why we made a decision to reverse it."[46]

Not everyone in the banking industry thinks that Bank of America was correct to back down in the face of so many account closures. Some viewed the proposed fee as a way to chase away unprofitable customers.[47] Regardless of whether Bank of America's fee reversal made sense for that particular bank, such a fee reversal is perhaps unique. The more common pattern is for banks to retain the automatic fees as the default but forgive them on a case-by-case basis if a customer complains. The Internet is full of sites advising consumers how to negotiate out of bank fees of all sorts.[48]

That customers do complain and threaten to close accounts if fees are not reversed is shown by the CFPB's own survey (reported in its 2015 arbitration study) showing that about 60% of respondents would close their account and take their business elsewhere if a credit-card issuer failed to reverse a mistaken fee. Evidence discussed by Johnston and Zywicki in their critique of the 2015 study shows that banks respond to customer threats. At least one medium-size bank in Texas grants refunds 70%–90% of the time when consumers complain about fees for such things as wire transfers and inactive accounts.

As with credit-card fees, the economic picture of how bank checking-account fees are actually assessed suggests that while such fees are imposed by default, they can be waived at the bank's discretion. Because there are no reliable analytics that predict customer-product usage and profitability when an account is opened, banks manage credit-card and checking-account fee forgiveness in light of what they learn about customer profitability during their relationship with the customer. Financial institutions lessen "adverse selection"—the tendency for high-cost customers to disadvantage both lower-cost customers and banks—by "firing" high-cost customers before they generate very high costs (in terms of usage or losses) by failing to forgive their fees and charges—while forgiving fees and charges incurred by more profitable customers.

The Discretionary Structure of Fees and Charges on Consumer Financial Accounts

The preceding survey of the variety of types of consumer financial products and the variety of ways in which consumers use those products allows one to understand the economic rationale behind the discretionary legal structure of consumer financial contracts. As I have explained elsewhere,[49] such contracts are standard-form, mass contracts but are written to give the provider of consumer financial services the discretion to tailor the terms for a particular consumer—in light of that consumer's relationship history as an account holder.

Consider the 2016 Chase Sapphire credit-card agreement.[50] Nearly the only thing that Chase commits to doing is to tell the customer that for a balance transfer or cash advance, "you will incur a transaction fee." Otherwise, by saying that Chase "may" take a particular action, the agreement gives Chase discretion to take the action. The list of discretionary actions is long:

> The APR on the Chase Sapphire card *may* range from 16.4% to 20.4%, but will vary with the market depending on the prime rate…. If you request, we *may* issue cards that access your account to your authorized users. If you wish to terminate an authorized user, we *may* close your account and open a new account with a different account number…. If your account has an annual fee, we will add your annual fee to your monthly billing statement once a year, whether or not you use your account. Your annual fee will be added to your purchase balance and *may* incur interest…. If any payment is late, we *may* charge you a late fee…. We *may* charge a return check fee if we stop payment on a cash advance check or balance transfer check at your request, or we refuse to pay a cash advance check or balance transfer check for any reason…. We *may* decline transactions for any reason, including: operational matters, the account is in default, or suspected fraudulent or unlawful activity (emphasis added).

If there were any doubt about the discretionary nature of Chase's obligations under the agreement, the agreement itself clears that up by finally providing:

> We *may* enforce the terms of this agreement at any time. We *may* delay enforcement without losing our right to enforce this agreement at a later time…. We *may* change the terms of this agreement including APRs and fees from time to time. We *may* also add new terms or delete terms. APRs or other terms *may* also change without amendment, for example when the Prime Rate changes (emphasis added).

A checking account is not quite as complex a product as a credit card. Nevertheless, consumer checking accounts confer plenty of discretion on banks. For example, Wells Fargo's consumer checking-account agreement[51] states (as it must by law): "No overdraft fee will be assessed on ATM and 'everyday' (one-time) debit card transactions unless you have enrolled in the Debit Card Overdraft Service…. An overdraft fee can be assessed on any other item we pay into overdraft…. At our discretion, we *may* pay a check or automatic payment into overdraft, rather than returning it unpaid…. If we pay the transaction into overdraft, it *may* help you avoid additional fees that may be assessed by the merchant" (emphasis added).

The discretion conferred by these contracts is used by banks to tailor a particular account holder's obligations to her circumstances as they unfold during the course of the

relationship. At least since the late 1990s, credit-card companies have allowed borrowers to increase their credit lines when necessary and, occasionally, have lowered payments to allow account holders who have fallen behind a chance to repay their outstanding balances. While these so-called borrower workouts have been criticized as extending the repayment period for too long, a whole range of fees and charges may be waived, as noted, by the bank at its discretion.

Elsewhere,[52] I have used the term "discretionary forgiveness" to describe such waivers of fees and charges and relaxation of payment terms. It is true, as the CFPB skeptically pointed out, that a bank's decision about when and how much to forgive a fee or charge is based on profit concerns. As discussed, financial-industry consultants emphasize that, to grow their profitability, banks should build and maintain relationships with profitable customers and avoid or terminate relationships with unprofitable customers. Banks forgive fees and charges—and even work out payment plans for account holders with unpaid balances—because the goal of building and keeping long-term relationships with profitable customers requires that sometimes the bank forgives fees and charges and works out payment plans.

Contrary to what the CFPB has argued, the fact that a bank's motivation in forgiving fees and charges is guided by a desire to increase its profitability does not mean that consumer welfare is harmed. Through *ex post* forgiveness, the bank essentially lowers fees and charges for customers whom experience has revealed to be the most creditworthy and the most profitable. By retaining the discretion to apply the contractual fee in the case of an unprofitable, high-cost customer, the bank ensures that its losses on such unprofitable customers are lower than they otherwise would be.

Reducing such *ex post* losses by applying a fee or charge increases the bank's *ex ante* expected profits from dealing with a pool of customers about whom the bank initially knows much less (typically only a credit score and employment status) than it comes to learn over the course of its relationship with them. With the discretion to charge a fee when a fee is appropriate to discourage costly transactions by high-cost customers, the bank has greater freedom to take the risk that a customer may turn out to be the high-cost, unprofitable type. Specifically, the bank will charge lower monthly fixed charges and fees when it has the legal discretion to impose fees and charges on costly transactions on a transaction-by-transaction basis.

The rest of this report analyzes a bank's incentives for "customized forgiveness" in the context of fee-generating transactions—and how such customized forgiveness improves the welfare of the bank and some consumers while harming no consumers. The analysis concludes by analyzing the impact of potential class-action liability on the bank's

incentives for maintaining fee-forgiveness programs. The analysis rests on the assumption that the bank perceives class actions, but not arbitration, as generating a risk that the bank will be forced to pay back all, or part, of a fee that it has the contractual discretion to charge. As Section III explains, a highly publicized judgment by the court for the plaintiffs in an overdraft-fee class action provides a vivid illustration of how class-action liability can result when a bank exercises discretion clearly conferred upon it under its contract with consumers.

III. Class Actions Impose Liability for Fees When Arbitration Would Not: Evidence from *Gutierrez*

For the CFPB and other advocates of consumer class actions, the poster child for the societal benefit from such cases are the judgment and settlements in the class actions targeting the way banks processed checking accounts to generate overdrafts. Beginning in the late 1990s, the defendant banks in the overdraft-fee class actions had begun processing checks and debit-card transactions that came in on given business days in order of the largest to the smallest dollar amount.

Previously, the defendant banks had processed checks and debit-card transactions either in chronological order or from the smallest to the largest dollar amount. In the one case that ended in a judgment for the class, *Gutierrez* v. *Wells Fargo*,[53] there was evidence that, for the named plaintiffs who had very low balances and a large number of small transactions, the change to high-to-low transaction processing increased the number of overdrafts, as well as the overdraft fees charged by Wells Fargo. After a bench trial in that case, Judge Alsup of the Northern District of California found that language in the consumer-account agreement between Wells and its depositors disclosing that Wells might process checks and debits from high to low was inadequate and misleading.

After this judgment against Wells, a flurry of class-action settlements ensued in the other overdraft-fee class actions. The CFPB reports in its proposed 2016 rule banning arbitration clauses that 29 million consumers received $1.015 billion in compensation under settlements of the multidistrict overdraft-fee class litigation.[54] Because many of those settlements also involved agreements by defendants to stop processing transactions from high to low (instead, typically posting chronologically) for two or three years,[55] in the same proposed rule, the CFPB repeatedly holds up the overdraft class settlements as a model of both compensation to class members and deterrence (in the sense of direct behavior modification).

The problem with the overdraft-fee class settlements and the judgment in *Gutierrez* is that, in these cases, defendants did nothing but charge a fee that was clearly authorized

under their contract with consumers. The judgment and settlements represent an *ex post* determination that the fees should not have been charged—even though the defendants clearly had the discretion under their contracts to compute and assess the fees. As it is extremely unlikely that a knowledgeable arbitrator would have found any legal wrongdoing in the overdraft-fee cases, the class settlements represent precisely the kind of random-fee reductions just analyzed.

Consider the contract that governed Wells's relationships with its customers during the period of challenged overdraft-fee assessments. As of 2002, that contract stated: "We may pay Items presented against your account in any order we choose…. In particular, we may choose to pay Items in the order of highest dollar amount to lowest dollar amount…. We may change the order of posting Items to your account anytime without notice to you."[56]

This contract provision clearly confers upon Wells the discretion—but not the obligation—to process checks and debits in the high-to-low fashion that it was then using. The use of the term "may" is precisely what one would expect on the view that contracts for consumer financial services confer the discretion on providers to alter terms in light of what they learn about a particular customer or customers in general. The use of the term "may" specifically authorizes individualized fee forgiveness across customer segments. Yet Judge Alsup wrote:

> [W]hile the April 2002 [agreement] used the phrase "We may choose to pay Items in the order of highest dollar amount to lowest dollar amount," it is undisputed that Wells Fargo was then actually posting cash withdrawals, debit-card, check and ACH transactions from highest-to-lowest dollar amount…. The phrasing "We may choose" suggested to customers that the bank would either exercise discretion or that it had not yet chosen to go to a high-to-low scheme. In fact, the bank knew that it was already imposing and would continue to impose high-to-low bookkeeping—the worst possible system from the customer's perspective.

In 2004, Wells was even more forthright when it revised the language of the agreement: "[I]f the Bank pays Items in the order of highest-to-lowest dollar amount, the total number of overdraft and returned Items fees you are charged may be larger than if the bank were to pay the Items in the order of lowest-to-highest dollar amount." Nevertheless, according to Judge Alsup, this "revised language compounded the deception. It did not adequately disclose that the bank had already adopted the high-to-low scheme."[57]

However, Judge Alsup's reasoning neglected the fact that Wells used the term "may" rather than words of contractual commitment—such as "will" or "promises to"—not to

deceive consumers but for the purpose of preserving its discretion to alter the method by which fees were assessed. Even more important, Judge Alsup was wrong to say that the high-to-low processing order was the worst possible outcome from the consumer's point of view. Before the judgment was finalized, Wells produced for the court a 1995 survey by Norwest—a bank that subsequently acquired Wells Fargo—showing that 18%–41% of depositors preferred having checks paid in the order of highest to lowest.[58]

As discussed, the average overdraft size is larger for those who occasionally overdraft than the average overdraft by chronic overdrafters. The occasional but infrequent overdraft user is precisely the type of consumer who should prefer high-to-low check and debit ordering: such a system prioritizes larger payments like a mortgage or credit-card bill to be paid first, the type of infrequent but relatively large overdraft likely to be incurred by this class of customer. In the 1995 Norwest survey, 41% of customers said that they would prefer high-to-low processing: for them, it is better to pay a one-time fee to the bank for overdraft protection than incur the cascading fees and loss of reputation triggered when the bank refuses payment. Moreover, depositors with high balances could expect that a one-time, unexpected overdraft fee would be refunded.

It is also true that whether depositors liked high-to-low processing of checks and debits is irrelevant to the legality of the practice. As quoted above, the contract gave Wells the discretion to use high-to-low processing—and the contract clearly told customers that Wells had such discretion. Whether a particular customer could calculate from that disclosure the precise impact of high-to-low ordering on her overdraft fees is irrelevant, too.

Indeed, it seems fanciful that any customer could calculate what her overdraft fees would be under any method of processing transactions: even under chronological processing, where customers are warned that debits occur immediately, once a merchant accepts a check in payment from a customer, it is the merchant who decides when the check is presented to his bank. The same uncertainty affects low-to-high processing. Overdrafts result from the customer's decisions, not the bank's: there is nothing a bank can do to tell a customer precisely when, and by how much, she will overdraft her account. It is the customer, not the bank, who can best estimate the risk of incurring overdrafts.

Unfortunately, we have no evidence on how cases involving allegedly wrongful fees for financial services have been decided by arbitrators. The American Arbitration Association (AAA), perhaps the most highly regarded forum for consumer-arbitration claims, as well as the one selected in the arbitration clauses of all large financial-services providers, has disclosed individual arbitral case files only to the CFPB. Unfortunately, in

its 2015 arbitration study, the CFPB made no effort to collect data on how arbitrator decisions varied with the type of alleged wrongful behavior.

Still, the fact that so many financial firms have chosen the AAA as the forum for consumers to pursue arbitration indicates their confidence that AAA arbitrators will enforce the terms of the contracts that they have with consumers. It seems almost inconceivable that an arbitrator interpreting the key language in the Wells contract quoted above could come to any finding other than that Wells Fargo had the discretion to process transactions in the high-to-low order—and that Wells fully disclosed that discretion to its customers.

Thus, we have a clear contrast. Arbitration would have preserved the discretion to calculate and charge overdraft fees as allowed by the Wells Fargo contract. But class action litigation led to a judgment that the contract violated vague obligations to avoid "deceptive practices"; the judgment required fee paybacks, and force the bank to eliminate the fee in the future.

IV. The Economics of Fee Forgiveness and the Impact of Class-Action Liability

In this section, I set out a relatively simple economic model that allows one to isolate the key variables determining whether a bank forgives a fee that otherwise would be imposed for a consumer-initiated transaction. That model generates predictions about when, and for whom, fees are forgiven that accord closely with the stylized facts about fees and charges described in Section II. I then use the model to analyze the impact of potential class-action liability of the kind imposed in *Gutierrez*.

For readers uninterested in the details of the model, I will summarize the results. On my analysis, when a bank invests in a customer dispute-resolution system, it does so because the information generated by that system allows it to make profitability-based fee-forgiveness decisions. Customers vary in the balances that they carry and the likelihood of incurring fees in the future. On my analysis, customers who carry low balances and incur a large number of fee-incurring transactions will not have their fees forgiven. This is as true of overdraft fees as it is for other fees in other consumer-driven transactions. Relative to a world where fees are assessed on all customers, the bank's investment to make informed fee-forgiveness decisions makes some consumers and the bank better-off and no consumers worse-off.

In this model, banks forgive fees because if they do not, they may lose the business of profitable, high-balance customers. Of course, sometimes fees are mistakenly imposed, contrary to what the bank's contract with its customers allows. Even if the probability of

a consumer bringing a lawsuit for a mistaken fee is far greater than the 2% that the CFPB's own survey revealed, when most consumers would leave the bank if such a mistake is not corrected, the market sanction of losing business, not potential liability, is what creates the incentive for the bank to forgive a fee.

For this reason, consumer arbitration—which is intended to be a cheap, highly accurate forum for determining if a fee was wrongly assessed—is likely to be rarely observed. Arbitration is a supplement to market incentives, reserved for the unusual cases where the bank should have forgiven a fee but failed to do so because of a mistake in its dispute-resolution process. Market incentives make such instances highly unusual.

In contrast to arbitration and as illustrated in *Gutierrez*, class-action liability typically results not because the bank has assessed a fee that it was not contractually authorized to assess but because courts failed to understand the structure of consumer financial contracts and imposed additional, external limitations on bank discretion. By raising the risk that some portion of any fee that a bank assesses may have to be paid back in the form of a class-action judgment, class-action settlements (and very rarely, judgments) represent a form of random *ex post* fee forgiveness that has nothing to do with customer profitability.

On the margin, the prospect of class-action liability deters banks from dealing with low-balance customers, for it is such customers who pay the fee most often. Worse, class-action liability cuts the return to a bank from investing in a costly—but informative—*ex post* dispute-resolution system. This creates further *ex ante* risk from dealing with low-balance, high-transaction-volume customers. The potential for class-action liability will cause banks to abandon the costly fee-forgiveness program and ration customers up front by charging higher fixed fees. The real losers from class-action liability are the vast majority of class members who never receive compensation under a class-action settlement and face much more expensive banking.

A Model of Bank Incentives for Internal Fee-Dispute Resolution

In this model, let r be the interest rate that the bank earns per period on the average balance that a customer keeps per period; for simplicity (and without loss of generality), assume that this average balance is fixed and that there are, at most, two periods of the customer's lifetime with a bank. Let B denote this per-period balance. Let F be the per-transaction fee that the firm may charge for the consumer-initiated transaction. The bank discounts earnings in the next period by a discount rate δ with $\delta = 1/(1 + r)$. Finally, let c denote the cost to the bank of the consumer-initiated transaction (and assume that this, too, is the same across two periods).

The bank's problem is to choose whether to invest an amount *I* per period in an internal dispute-resolution process that generates information on relevant aspects of the customer's account. For purposes of this analysis, that process is simplified to a decision by a customer representative on whether to waive a fee that was automatically imposed on a single, end-of-period transaction. For its investment *I*, the bank gains information on the customer's average balance and the probability, *q*, that the customer will incur the transaction in the next period—information that the customer representative uses in determining whether to waive the fee.

Consistent with the CFPB's survey evidence and the existence of a highly competitive banking sector, I assume first that the customer will leave the bank, generating 0 revenue for the bank in period two, if the bank does not waive the period-one fee; but the customer will stay with the bank for period two if the bank waives the fee. The bank knows this, and its customer-service representatives' decisions are consistent with this knowledge. The bank's representative also knows the average per-period account balance of the customer requesting the waiver, as well as the probability that the customer will generate a fee-inducing transaction in the next period. Let the probability of a period-two transaction be given by *q*, with $0 < q < 1$. Hence $(1 - q)$ is the probability that if the consumer stays for period two, she does not generate a transaction.

There is no definite period when the bank/customer relationship ends; for this reason, I restrict attention only to bank strategies that are unchanging from one period to the next.[59] This means that if the bank forgives the fee in the first period, then it will forgive the fee in the second period. Under such a strategy, when the consumer stays for period two, she generates discounted expected profit for the bank:

$$\boldsymbol{\delta[q(rB - c) + (1 - q)rB]} \qquad \textbf{(1)}$$

In period one, the bank's profit from this customer is $rB - c$ if the bank waives the fee and $rB + F - c$ if the fee is not waived. Under the assumption that the customer's balance is constant over the two periods, if a customer whose balance, *B*, is such that $rB + F < c$, or $B < (c - F)/r$ requests fee forgiveness, the bank will decline the request. Such a customer has a balance that is so low that the bank loses money by allowing the customer to incur the transactions to which account holders are entitled.

As customers are assumed to leave when their refund requests are declined, by declining the request, the bank is essentially firing the customer. Such customers can exist only if the bank charges a fee for the transaction, *F*, that is less than the actual cost to the bank of the transaction, *c*. However, as discussed, this may well be true for some financial

transactions. In any event, this is an example of how the fee-forgiveness stage is when the bank has learned something about the customer that it did not know initially, the average balance size, *B*.

Assume for the remainder of this section that the customer is not unprofitable in this sense. As a profit maximizer, the bank's algorithm waives (or forgives) the fee if, and only if, the net profit from forgiving the fee and keeping the customer for two periods is bigger than the net profit for charging the first-period fee but losing the customer. The bank forgives the fee only if:

$$\boldsymbol{rB - c + \delta[q(rB - c) + (1 - q)rB] = rB - c + \delta[rB - qc] > rB + F - c,}$$

which, using the above definition of δ, simplifies to:

$$\boldsymbol{B > c\frac{q}{r} + F\frac{(1+r)}{r}.} \qquad \textbf{(2)}$$

We can see from inequality (2) that the bank forgives the fee when the customer has a big balance, *B*, and the probability of a transaction in the next period, *q*, is low. Moreover, the lower the fee and the higher the interest rate,[60] the more likely the bank is to forgive. For customers with low balance, *B*, and a high probability, *q*, of incurring the transaction and requesting forgiveness again in period two, the bank does not forgive but prefers to lose the customer.

These predictions from inequality (2) accord closely with the stylized facts about when banks forgive and do not forgive fees. Most important, as discussed, customers who keep low balances but generate a large number of fee-eligible transactions will not have their fees forgiven. Even if not strictly unprofitable, such customers can be described as being fired by the bank. Given the low balances kept by such customers, losing the customer and the interest earned on the customer's account is better than forgoing the fee revenue. Conversely, the interest income earned on a high-balance account induces the bank to forgive fees incurred by a high-balance customer.

Inequality (2) is derived under the assumption that regardless of the size of her average balance, the customer closes her account and goes elsewhere if her fee is not forgiven in period one. The evidence discussed indicates, to the contrary, that some customers will stay with the bank regardless of whether the fee is waived. This does not necessarily result from customer ignorance about the fee—as Zywicki argues, at least in the case of overdraft fees, such customers may be liquidity-constrained and find that paying the overdraft fee is the cheapest way to obtain short-term loans.

Regardless of why some customers do not take their business elsewhere when they pay the transaction fee, now modify the model set out above to assume that there is a probability, *u*, that the customer stays for period two despite paying the period-one fee. This probability, *u*, with $0 < u < 1$, is known to the bank and incorporated in its fee-forgiveness algorithm. With a probability, *u*, that the customer stays despite not having the fee forgiven, the two-period expected payout—from a customer whose period-one fee is not forgiven—is given by $(1 + \delta u)(rB + F - c)$, rather than $(rB + F - c)$. The option of not forgiving the fee is now more profitable because the customer may stick around and pay the fee again in period two. When we compare this expected profit with the expected profit from forgiveness, instead of inequality (2), we see that the fee is forgiven only if:

$$\boldsymbol{B > c\frac{(q-u)}{r(1-u)} + F\frac{1+r(1+u)}{r(1-u)}.} \qquad \textbf{(3)}$$

If we compare (3) with (2), provided that the fee charged, *F*, is always bigger than the cost of the transaction, *c*, we see that the right side in (3) is bigger than the right side in (2)—so the threshold balance for which (3) holds must be bigger than the threshold balance for which (2) holds. When some customers stay with some positive probability despite being charged a fee, a customer needs a bigger balance to have her fee forgiven.

Inequality (3) may be thought of as giving the fee-forgiveness criterion with an algorithm that yields good—but not perfect—information about the customer: it is based on knowing only the customer's balance, *B*; the probabilities, *q*, that the customer will incur a transaction in the next period; and, *u*, that she will stay a customer even if charged a period-one fee. Of course, the entire point of a bank investing the amount, *I*, in an algorithm for fee forgiveness is to make such a decision with the most fine-grained, individualized information possible. It might seem that perfect information in this context would mean that the bank's algorithm would identify whether the customer would leave if her fee were not forgiven, as well as whether she would incur another transaction in the next period if she stayed (i.e., the algorithm would not generate probabilities but certainties).

But this is not how economists think of "perfect information." Whether a customer stays depends on a variety of factors—such as the time-cost of finding another bank—that are not known with certainty, even by the customer. Even the customer may make a mistake and generate a fee, triggering a transaction the next period that she could not predict. In this context, no one can know for certain whether the customer will leave or will incur a transaction next period if she stays. The best that anybody can know are the true probabilities of these events. What the bank learns by investing the amount, *I*, in its algorithm are these true probabilities—compared with its best guess or previous probabilities across all customer types.

The most important thing about this investment in information is that, relative to a world where the bank makes it decisions only on the basis of its prior beliefs about the key probabilities, the investment in information benefits some customers while harming none. In this sense, the imposition of discretionary fees satisfies the Pareto criterion for improving social welfare: a change is Pareto-optimal if it makes some people better-off while making none worse-off. Recall that the imposition of the fee is the automatic default. Hence, by investing in information, the bank waives the fee for some customers who would not otherwise have it waived, while those who still pay the fee are no worse-off than they would otherwise be. As for the bank, it incurs the cost, *I*, of learning the true probabilities, *q*, and *u* only it increases its profits thereby.

It is not only high-balance customers who benefit from the bank's investment in information. Many low-balance customers may benefit, too. Consider inequality (3). Suppose that without investing in information acquisition, the bank held a belief that may be held by many people concerned with the "fairness" of bank fees: that low-income and low-balance customers were most likely to engage in fee-generating transactions and to stay with the bank even if charged a fee. In terms of inequality (3), such a belief means that without investing in information acquisition, the bank thought that whenever *B* on the left side of (3) was low, then both *q* and *u* on the right side were high. With such prior beliefs, the bank would likely not grant fee refunds to low-balance customers.

If the bank invested the amount, *I*, in information acquisition, then it would learn that low-balance checking accounts may have a lower probability of generating some types of fee-generating transactions than do higher-balance accounts.[61] Downward revision of the probability, *q*, in inequality (3) would cause the bank to lower the threshold balance level where it would grant fee forgiveness. Better information means that fewer people will pay fees than under the default.

An Application to Overdraft Fees

In the particular case of overdraft fees, the service provided by the bank is a one-period loan. If we let the total volume of such overdraft loans be given by *L*, then the cost to the bank of providing overdraft loans is given by the cost of an interest-free loan, *rL*, plus the fraction of such loans that are never repaid for a total cost of *tL*, with $t > r$. According to the American Bankers' Association, the historical charge-off rate on overdraft loans—the rate ultimately written off as defaulting—is 3%–5%.[62]

As discussed, the evidence clearly shows that there are two types of bank depositors when it comes to overdrafts: those who rarely, if ever, incur overdrafts and those who

chronically do. Moreover, the evidence also shows that the average overdraft size is larger, at $306, for those who occasionally overdraft than the $90 average overdraft by chronic overdrafters.[63] Finally, Zywicki's evidence shows that, at least for one bank, the probability of not incurring an overdraft-fee-generating transaction is actually lower (29%) for accounts with low balances than for all accounts (38%).

When *tL* is the cost of providing the service—the one-period loan—the bank's net return from providing the service and charging a fee, *F*, is now given by $rB - tL + F$. If the period average balance, *B*, is less than the amount, *L*, loaned via overdraft coverage plus the transaction cost of such loans, then the bank loses money on the customer if it does not charge the fee, *F*. The bank cannot profitably forgive fees for such a customer but must charge the fee regardless of whether the customer will leave after being charged the fee.

For customers with $rB > tL$, the bank profits on net from the customer even if it forgives the overdraft fee, *F*, and there may be an incentive to forgive the fee. To see when such forgiveness is optimal for the bank, we derive the condition under which profits are higher when the fee is forgiven, as above, but now use *tL* (instead of *c*) as the cost of providing the service. If we do so for the general case, where the bank has learned the probability of a period-two transaction, *q*, and also the probability of *u* that the customer will leave if her period-one overdraft fee is not forgiven, we find that forgiving the fee maximizes two-period profits when:

$$\boldsymbol{B > (tL + k)\frac{(q-u)}{r(1-u)} + F\frac{1+r+u}{r(1-u)}.} \qquad \textbf{(4)}$$

From (4) we can trace the general points about the value of information for the particular case of overdraft fees. If the bank began with a prior belief that low balance, *B*, signaled a high probability, *q*, of a next-period overdraft, then this would increase the threshold balance where fee forgiveness is granted. Recognizing that a low balance, *B*, does not signal a high probability of a repeat overdraft would increase the threshold balance for which fees are forgiven.

To get some sense of how big a balance would be required for the bank to forgive an overdraft fee and of the value of information to account holders, we can use some figures from a study of overdraft users by Fusaro.[64] He identifies chronic overdraft users (with probability *q* virtually equal to 1) as overdrafting by an average of $90 and occasional overdraft users (about 10 per year or a monthly probability of about 0.1) as overdrafting an average of $306. Simplify by assuming $k = 0$, assume an interest rate of 0.03, $t = 0.06$ (that is, since $t = r$ plus the charge-off rate, assuming the low end of the charge-off rate of 0.03), and an overdraft fee of $35.

Under these parameters, if the bank holds an uninformed prior belief that each type of user is 50% likely to close her account if the fee is not waived ($u = 0.5$), then the balance required for a chronic overdraft user to have her fees forgiven would be about $3,750, while an occasional overdraft user would have the fee forgiven if her balance was over $3,084.

Suppose now that the bank had even better information and learned the actual probability that the two customer types would leave if their overdraft fee were not forgiven. If the bank learned that an occasional overdraft user had a probability of staying if a fee of 0 were imposed (with the chronic user still likely to stay with probability 0.5), then the occasional user would have her fee forgiven, provided her balance was at least more than $1,244. A larger range of low-balance occasional overdraft users would have their fees forgiven if the bank invested to learn that they would leave, compared with if the bank did not make the investment.

The Relative Economic Insignificance of Contractual Liability for Mistaken Fees and How Class-Action Liability for Fees Decreases the Relative Profitability of Serving Consumers Who Persistently Generate Such Fees

Having shown how the market incentive to retain a customer's business generates incentives for fee forgiveness, the question is how those incentives compare with those created by legal liability for a fee that is imposed in violation of the contract or some other law. This subsection explores these issues, beginning with the case of perfectly assessed liability for mistaken fees and then moving to analyze class-action liability.

Perfect Liability for Mistaken Fees and the Role of Arbitration. Consider a situation where the bank may impose a fee in violation of its contract with the customer. Such a fee may result from an error—mistakes will occur with some positive probability even if a large amount is invested to reduce that probability to a low level. Of course, the fee may not be a mistake but intentionally imposed in an attempt to generate revenue above and beyond that to which the bank is entitled under the contract.

Under a perfect legal-liability system, any time the bank imposes an unlawful fee in the amount of F, it is made to pay back the fee. Such a perfect system is obviously unrealistic: the bank will not always be sued and found liable. But it presents the best case for legal liability in comparing incentives created by such liability with incentives created by the market. Under such a regime, the bank has zero profit from charging the unlawful fee: it pays back in legal judgments all such unlawful fee revenues.

As we have seen, the market incentive to forgive a fee is given by the expected value of the lost business from a customer who requests fee forgiveness. As discussed, if there is a probability, *u*, that the customer stays despite having the fee imposed and a probability, *q*, that if she stays she incurs a fee-generating transaction, then the expected net revenue from imposing and not forgiving the fee is given by $(1 + \delta u)(rB + F - c)$. As derived earlier, the expected revenue from forgiving the fee is given by $rB - c + \delta[rB - qc]$. The market-driven cost of not forgiving the fee is given by the difference between the second and the first of these two expressions.[65] After simplification, the market cost of not forgiving the fee (this difference) is greater than the damages, *F*, for unlawful fee imposition only if:

$$\boldsymbol{B > \frac{F\left(\frac{2}{\delta}+u\right)+c(q-u)}{r(1-u)}.} \qquad \textbf{(5)}$$

Inequality (5) is not especially neat; but what it says is that if a customer's balance is big relative to the fee and the cost of the transaction, then the market sanction is bigger than the legal sanction for the wrongful fee. Just how big the balance must be relative to the fee and the transaction cost is determined primarily by the probability of the customer staying and the probability that the customer will engage in further cost-inducing transactions if she stays. The bigger the probability of the customer incurring a transaction if she stays, *q*, the bigger must be the balance for the market sanction to be larger than the legal damages. Provided that $F > c$, the bigger is the probability of the customer staying even if a fee is imposed, the larger must be the balance for the market sanction to be larger.

This is quite intuitive; but it may be argued that not all customers complain and potentially have their fees reduced, so the market sanction must be smaller than assumed in deriving inequality (5). This is true; but it is also true that the probability of the bank being sued and made to pay back a fee, *F*, whose imposition violated the contract is also less than one. Again intuitively, the higher the probability of the customer complaining and leaving if she does not have the fee refunded, the lower need be the probability of such a complaining customer for the market sanction of loss of business to exceed the legal sanction of the loss of the fee. The probability of a complaining customer can be much lower than the probability that the bank is sued and made to refund a wrongful fee. Yet the expected market sanction can be bigger than the expected legal sanction.

Consider a customer with an average balance, *B'*, who will certainly leave if her fee is not refunded and who has only a 0 probability of incurring a fee-generating transaction in the second period. For such a customer, the market sanction is the discounted lost interest on her balance, given by $\delta rB'$, which for a realistically small interest rate, *r*, is

approximately equal to rB'. The expected market sanction is the probability that a customer with a balance, B', complains about the fee and requests that it be refunded.

If this probability is f_m and the probability of the legal sanction is f_l, then the expected market sanction is bigger than the expected legal sanction whenever $rB' > (f_l/f_m)F$. For an interest rate of, say, 0.02, and a fee of $30, this becomes $B'/\$1500 > (f_l/f_m)$. If we let $f_l = 1$—the best case for legal liability, in the sense that the bank is always sued and made liable for the full amount of a wrongful fee—then the market sanction is still stronger provided only that $B' > \$1500/f_m$. As shown in equation 1, if there is only a 30% chance that a customer complains and requests a fee refund, the average balance need be only $4,500 for the expected market sanction to be bigger than the expected legal sanction. Because this is the average balance across all customers, the model's prediction seems likely to be true.

The assumption that the bank is always sued and made liable when it charges fees mistakenly is highly unrealistic. Recall that the CFPB's survey found that slightly fewer than 2% of respondents would consider contacting an attorney if a credit-card company refused to waive a mistakenly imposed fee. That same survey found that almost 60% of respondents would cancel their account and take their business elsewhere. If we assume that those 60% would have complained about the fee before leaving (giving the bank a chance to forgive it), then using the CFPB's survey numbers, we have $f_l = 0.02$ and $f_m = 0.6$.

Plugging these figures for the probabilities of a customer suing or switching and the same 0.02 interest rate and $30 transaction fee, we have that the market sanction is stronger when $B' > \$45$. An average balance of $45 is so small that, if the CFPB is correct, the market sanction for mistaken fee forgiveness is *always* stronger than the sanction in a legal system that *always* compensates for the mistaken fee when the consumer sues.

Such a perfect *ex post* dispute-resolution system is precisely what consumer arbitration is supposed to be: fast, cheap, and highly accurate in awarding compensation when a fee is mistakenly charged. The preceding example indicates that if consumers are just as unlikely to consider arbitration as they are to contact an attorney about a mistaken fee (i.e., 2% probability), then arbitration is not only unlikely but also likely to be overwhelmed by the market-driven incentive for the firm to forgive a mistaken fee.

Even if a firm were so successful in informing consumers about the possibility of AAA arbitration that 60% of the consumers would consider going to AAA arbitration if the firm failed to forgive a mistaken fee, as long as the average balance exceeded $1,500, the firm's market-driven incentive to avoid loss of business would be stronger than the

incentive created by a costless, perfectly accurate, arbitration regime. Even if consumers arbitrated most of the time over mistaken fees, the firm's incentive to correct mistaken fees would be driven primarily by the prospect of losing business, not the cost of arbitration.

Class-Action Liability and the Unbundling of Informed and Tailored Fee Forgiveness. Were class-action liability imposed only when the bank imposed a fee in violation of a contract with consumers, then analysis of such an *ex post* liability regime would be identical to the analysis of legal liability just undertaken. But as argued, class-action liability is not based on a bank's imposition of a fee that violates its contract with consumers. Instead, class-action liability is grounded on other theories—typically, that the fee was deceptive and therefore violated state consumer-protection laws.

With class-action liability, the bank faces the prospect of a class settlement that will—through payments to the class and attorney fees to class counsel—cost it some fraction of the per-customer fee that it charged. As the size of the common fund increases with the size of the class and as attorney fees increase with the size of the common fund, from the bank's point of view, the probability of such fee payback through class settlements is likely to be bigger, the larger the number of customers who are charged fees at any given time.

This has the straightforward implication that the larger is the bank's customer base, the higher is its perceived probability of effectively paying back the fee through a class-action settlement. Moreover, for any given customer base of size, N, the expected fraction of the fee lost via such a settlement increases, the higher is the fraction of all customers whose balances and probability of repeatedly incurring the fee are such that the fee is not forgiven. That is, looking back as inequality (2), we see that it is the value of the expression $(B - c(q/r))$ that determines whether the fee is forgiven. If the bank has a large number of customers whose balance, B, is low relative to their probability, q, of incurring a fee-generating transaction, then that same bank also has a relatively high probability $(1 - s)$ of having to pay a class-action settlement that reduces its net expected fee to sF.

The most direct impact of expected class-action payback is for customers in this low-balance, frequent-transactor group. Potential class-action liability lowers the expected fee to sF, with $s < 1$, and so now more of these customer types are unprofitable. Whereas without class liability, a customer is profitable as long as $rB > c - F$, now customers are profitable only if $rB > c - sF$. Even if the bank is charging a fee that covers its cost, when it must anticipate a chance of paying back the fee, the customer must have a bigger balance for her fee-inducing transactions to be profitable for the bank.

The next notable impact of expected class-action payback is a nonimpact. For customers who would have their fee forgiven even in the absence of potential class liability, class liability is irrelevant. As their balances and transaction frequencies are so high and low, respectively, that the bank forgave their fees even when it could anticipate keeping the full fee, their fees will be forgiven when the bank expects to keep only a fraction of any fee charged.

A less direct consequence of the bank expecting to keep only a fraction of the fees it charges and does not forgive is a change in the bank's calculus in determining whether to forgive a customer's fee. Note that when the fee has fallen to *sF* because of potential class liability, inequality (3), which determines the minimum balance for which fees are forgiven, now becomes inequality (5):

$$\boldsymbol{B > c\frac{(q-u)}{r(1-u)} + sF\frac{1+r(1+u)}{r(1-u)}.} \qquad \textbf{(5)}$$

With an expected fee of only *sF* for $s < 1$ on the right side of inequality (5), a bank now will forgive the fee for an even lower balance, *B*, and higher probabilities, *q*, of incurring a fee-generating transaction and *u* of staying, despite not having the fee forgiven. Intuitively, when the bank anticipates keeping only part of the fee, it is cheaper for the bank to forgive the fee and so more customers have their fees forgiven.

This may seem like a benefit to customers—in that the bank forgives overdraft fees for high-frequency transactions with lower balances—but the analysis is not complete. The problem is that class-action settlements are a form of *ex post* fee forgiveness that is inconsistent with the market incentive for fee forgiveness. Whereas the bank forgives fees under inequality (3), for relatively high-balance and low-transaction-frequency customers, class actions force the bank to forgive some fraction of fees for exactly the opposite type of customers—the low-balance, high-frequency customers.

Recall that it costs the bank an investment, *I*, to gain information about balances and transaction frequency that allow it to profitably forgive fees.

This investment is made only if the bank's profit, net of the investment from the fee-forgiveness program, is higher than if it did not charge fees at all—or charged the fees but never forgave them. Its profit from the costly fee-forgiveness program must be less when it is effectively forced to forgive some fees that would be unprofitable to forgive. In effect, *ex post* class-action liability does not allow the bank to use the customer profitability information in a way that maximizes profits. This lessens the incentive to acquire such information.

The bank's response to this reduction in its return to investing to learn—and then use—customer profitability information caused by potential class-action liability will vary with the size of its customer base and the probability of fee forgiveness. The larger the customer base, the bigger the per-period cost, *I*, of operating the internal-dispute resolution, fee-forgiveness system. For any given reduction in the benefits of such a system, the bigger the customer base, the more likely it is that the bank will no longer find the system worth its cost.

For a bank of any given-size customer base, the impact of the economically illogical *ex post* fee forgiveness wrought by class-action liability will depend on the likelihood that customers have their fees forgiven. If relatively few customers have their fees forgiven, the fee will still be charged with no costly fee forgiveness—even with likely class-action liability. (In such a case, the profitability of the forgiveness program, net of its cost, would be only marginal, compared with simply charging all customers the fee, without potential class-action liability.)

However, the bank will screen out low-balance customers whose balance is too low to be profitable, given that there is some probability that the fee will be refunded through class-action liability. There will be many such customers in this case: a small number of high-balance customers who had their fees forgiven means that there are a large number of low-balance, high-transaction class members, and so a high probability of potential class liability.

If a large fraction of customers had their fees forgiven under the costly fee-forgiveness program, then the impact of potential class liability will be smaller. With a relatively low probability of having to pay back the fee, but also a low probability of actually charging the fee in the first place, the bank may still be better-off continuing the costly fee-forgiveness program than losing the business of its many customers who have their fees forgiven. Potential class liability also raises the minimum balance for customer profitability; but with a low probability of such liability, the increase in the balance profitability floor will be small, too.

When we extend the analysis to consider the impact of *ex post* class-action liability on whether a bank continues a costly fee-forgiveness program, we see that such liability may, paradoxically, harm the customers whom it is supposed to help. To the extent that banks differ in the fraction of customers who receive fee forgiveness, when a costly fee-forgiveness program is in place, the prospect of class-action liability amounts to involuntary fee forgiveness. This will likely cause banks to terminate fee-forgiveness programs if most customers are unprofitable to carry, absent fees (i.e., those with insufficiently large bank balances or insufficiently low transaction volumes).

Evidence Confirming the Prediction That Potential Fee Reversals due to Class-Action Liability Lead to the Elimination of Low-Balance Checking Accounts

Though admittedly anecdotal, there is substantial evidence confirming at least one of my economic conjectures regarding the impact of class-action liability on bank behavior: the prediction that banks will increase minimum-balance requirements and otherwise try to screen out low-balance, high-transaction-frequency customers when expected fees from such transactions are reduced *ex post*.

The evidence arises from changes in overdraft fees and fees generated by bank customers' use of debit cards. Through both regulatory action and class-action settlements, banks face lowered expected fees from overdraft protection. As the CFPB recounts,[66] beginning around the time of the 2010 judgment against Wells Fargo in *Gutierrez* and continuing until today, a number of banks have, as one of the terms of class-action settlements, agreed to cease, for at least a few years, the practice of ordering checks and debits from the highest to the lowest in processing and paying such transactions. Especially for low-balance accounts, high to low is likely to increase the per-fee transaction. These settlements represent precisely the kind of *ex post* fee reduction that one can expect from class-action liability—and one that is targeted at fees to customers who would likely not have their fees reduced under a bank's fee-forgiveness program.

Regulatory action taken by the Federal Reserve also had the effect of lowering expected overdraft-fee revenue. In 2009, the Federal Reserve revised Regulation E so that banks could provide overdraft protection and charge overdraft fees on (nonrecurring point of sale) debit cards and ATM usage *only* if the customer explicitly opted in to such coverage and fees.[67] A 2013 CFPB study found that this opt-in requirement led to a reduction in overdraft fees for customers who opted in as well as for those who did not opt in.[68]

As for fees from debit-card usage, as implemented by the Federal Reserve in 2011,[69] the Durbin Amendment to the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 limited the fees (to 0.05% plus 21 cents) that banks who issued credit cards could charge to retailers who accepted such cards from consumers. While the interchange fee limited by this regulation is charged by banks to merchants, that fee is triggered by customer transactions and, thus, corresponds to the transaction-triggered fee that I have analyzed above. It is estimated that the Durbin Amendment reduced bank interchange revenues from debit-card transactions by about 40%.[70] Thus, Durbin reduced the fee for certain transactions, too.

My analysis predicts that these reductions in the fees that banks can charge for customer-initiated transactions would have caused some low-balance, high-transaction-volume customers to become unprofitable for banks. Banks should then respond by screening out such customers or by finding some other source of revenue from such customers.

Banks have done precisely this. Free checking accounts have now become a thing of the past. More precisely, banks now charge monthly fees for checking accounts that are waived only if customers maintain a minimum daily balance. JPMorgan Chase, for example, charges a monthly service fee of $12 that is waived only if the customer makes direct deposits of at least $500 per month or has a minimum daily balance of $1,500. Wells Fargo charges a smaller monthly fee of $7 but waives the fee under similar conditions. For customers who have minimum balances of less than $1,500, given a $34 ($35) fee for covered overdrafts, Chase (Wells) charges monthly fees totaling $144 ($84) per year, effectively making up for an expected loss of about four (2.5) transactions worth of transaction-based revenues per year.

V. Conclusion

This report shows that the CFPB's proposed ban on arbitration contracts that foreclose class-action litigation remedies is likely to reduce consumer welfare. The paradigm case that the agency advances to show the utility of class-action litigation—the *Gutierrez* v. *Wells* decision and the subsequent overdraft settlements—is founded on an economic fiction. When banks look to customer profitability to assess fee forgiveness, they are expanding the range of financial options for consumers who may prefer to maintain low balances or frequently overdraft—perhaps because of their own financial constraints. Banks will not offer credit and financial products and services to consumers unless they can expect to make a profit on the accounts.

As this report shows, the market sanction of losing business, not potential liability, is what creates the incentive for a bank to forgive customer fees. Arbitration—which is intended to be a cheap and highly accurate forum for determining if a fee was wrongly assessed—is a supplement to market incentives. But arbitration cases are, and should be, rare.

Class-action liability, in contrast, cuts the return to a bank from investing in costly but informative *ex post* dispute-resolution systems and creates further *ex ante* risk from dealing with low-balance, high-transaction-volume customers. On the margin, at least some banks are likely to abandon their costly fee-forgiveness programs and ration customers up front by charging higher fixed fees or balance requirements. In this way, the real losers from the CFPB's insistence on requiring class-action liability for bank fees are

the vast majority of class members who never receive compensation under a class-action settlement but face higher up-front fees and balance requirements for banking. In many cases, such fees and requirements are likely to be so high that many lower-balance consumers end up with no bank at all.

---

[1] Proposed Arbitration Ban, at 99.
[2] Id., 101.
[3] Id., 104.
[4] *Gutierrez* v. *Wells Fargo Bank*, N.A., 730 F. Supp. 2d 1080, 1082 (N.D. Cal. 2010), *rev'd in part*, 704 F.3d 712, 730 (9th Cir. 2012).
[5] Proposed Arbitration Ban, 105–6.
[6] See, generally, Pub. L. No. 111-203, 124 Stat. 1376 (2010), section 1028(b).
[7] Id. at 1028(a), (b).
[8] Proposed 12 C.F.R. § 1040.4(a)(1).
[9] Id. at 1040.4(a)(2)(i).
[10] Id. at 1040.3(a).
[11] Proposed Arbitration Ban, 99.
[12] Ibid., 99–103.
[13] Id., 101.
[14] Proposed Rule at 101, citing at the conclusion of this quotation, "Brooks, Banks and Others Base Their Service on Their Most Profitable Customers," *Wall Street Journal*, January 7, 1999, available at http://www.wsj.com/article/SB156017371382990000.
[15] Proposed Arbitration Ban, 104.
[16] *See supra*, n. 4.
[17] Proposed Arbitration Ban, 105–6.
[18] For many important everyday consumer financial transactions, such as overdrafts and credit-card payments, the consumer initiates the transaction and determines the bank's potential risk. Unlike a nonfinancial product, such as a car—whose cost is determined by the manufacturer's build decisions—for consumer financial products, the consumer determines the financial-product provider's costs.
[19] Ron Garland, "Non-Financial Drivers of Customer Profitability in Retail Commercial Banking," *Journal of Targeting, Measurement and Analysis for Marketing* 10, no. 3 (2002): 233, 235–36.
[20] American Bankers Association, "Credit Card Market Monitor," March 2016, available at http://www.aba.com/Press/Documents/ABA2016Q1CreditCardMonitor.pdf.
[21] Board of Governors of the Federal Reserve System, Report to Congress on the Profitability of Credit Card Operations of Depository Institutions, June 2016.
[22] Ibid., p. 7. As the report explains, the CARD Act of 2009 limits such repricing for accounts that have not fallen at least 60 days behind on payments.
[23] According to Sienna Kossman, "2016 Credit Card Fee Survey: Surprise! Fees Drop," CreditCards.com, July 27, 2016, available at http://www.creditcards.com/credit-card-news/2016-card-fee-survey.php.
[24] Sienna Kossman, "2015 Credit Card Fee Survey: Average Card Carries Six Fees," CreditCards.com, July 15, 2015, available at http://www.creditcards.com/credit-card-news/fee-survey.php.
[25] Ibid.
[26] Keri Anne Renzulli, "The Crazy Easy Trick to Getting a Fee Waived or Your Rate Lowered," *Time*, September 25, 2014, available at http://time.com/money/3425668/how-to-get-credit-card-fee-waived-rate-lowered.
[27] Martin Merzer, "Poll: Asking for Better Credit Card Terms Pays Off," CreditCards.com, September 24, 2015, available at http://www.creditcards.com/credit-card-news/poll-ask-better-terms.php.

[28] Matt Schultz, "How to Get a Credit Card Late Payment Fee Waived in Four Easy Steps," *U.S. News and World Report*, August 25, 2014, available at http://money.usnews.com/money/blogs/my-money/2014/08/25/how-to-get-a-credit-card-late-payment-fee-waived-in-4-easy-steps.
[29] Steve Topper, "The History and Evolution of the Free Checking Account" (2012), available at http://freecheckinginformation.com/financial-writers/the-history-and-evolution-of-the-free-checking-account.
[30] Christine Dugas, "Banks' Free Checking," *USA Today*, July 2, 2004.
[31] Victoria Finkle, "Free Checking Isn't Cheap for Banks," *American Banker*, December 9, 2011 (quoting researcher Mike Moebs).
[32] Strunk, "Value Checking: Stop the Bleeding with a Value Checking Program from Strunk," available at https://www.strunklp.com/site/page?view=value_checking.
[33] Marina Shifrin, "Banks Are Actually Losing Money to Service Your Checking Account," January 25, 2012, available at http://www.mybanktracker.com/news/2011/12/13/banks-losing-money-service-checking-account.
[34] Roger D. Blackwell, Paul W. Miniard, and James F. Engel, *Consumer Behavior* 56 (2006).
[35] Jeff Horwitz, "Debit Fee or No, Megabanks Must Ditch Unprofitable Customers," *American Banker*, October 31, 2011; Jarred Brown, "What to Do with Unprofitable Customers," *Banking on Analytics*; Claes Bell, "What Do You Really Cost Your Bank?" Bankrate.com, December 28, 2011; Arthur Middleton Hughes, "How Banks Use Profitability Analysis," Database Marketing Institute, July 25, 2016, available at http://www.dbmarketing.com/articles/Art195.htm.
[36] Claes Bell, "Another Record-Setting Year for Checking Account Fees" (2015), available at http://www.bankrate.com/finance/checking/record-setting-year-for-checking-account-fees-1.aspx; and see Wells Fargo, "A Guide to Common Checking Account Fees," available at https://www.wellsfargo.com/assets/pdf/personal/checking/fees/value-CA.pdf?t=1438646400064.
[37] Todd J. Zywicki, "The Economics and Regulation of Bank Overdraft Protection," *Wash. & Lee L. Rev.* 69 (2012): 1141, 1152.
[38] Ibid., 1153.
[39] Alex Sheshunoff, "A New Approach to Covering Overdrafts," BankDirector.com, June 3, 2011, available at www.bankdirector.com/magazine/archives/.../a-new-approach-to-covering-overdrafts.
[40] FDIC, "Study of Bank Overdraft Programs" 62 (2008), quoted in Zywicki, supra n. 37.
[41] As recounted by Zywicki, supra n. 37.
[42] CFPB Study of Overdraft Programs 30 (2013).
[43] Sheshunoff, "A New Approach to Covering Overdrafts," supra n. 39.
[44] Zywicki, supra n. 37, 1163–64.
[45] For the petition, see Molly Katchpole, "Tell Bank of America: No $5 Debit Card Fees," Change.org, available at https://www.change.org/p/tell-bank-of-america-no-5-debit-card-fees; and on the bank's response, see Ylan Q. Mui, "Bank of America Backs Off Debit Card Fee After Consumer Backlash," *Washington Post*, November 1, 2011, available at https://www.washingtonpost.com/business/economy/bank-of-american-drops-debit-card-fee/2011/11/01/gIQADvugcM_story.html.
[46] "BofA Debit Fee Plan Led to 20% Jump in Closed Accounts," ABC News, January 23, 2012, available at http://abcnews.go.com/blogs/business/2012/01/bofa-debit-fee-plan-led-to-20-jump-in-closed-accounts.
[47] "Thinking BofA's Debit Fee Refugees Are 'Unprofitable' Is a Huge Mistake," The Financial Brand, October 31, 2011.
[48] "Here's How I Negotiated Out of Bank Fees," Part II, available at http://www.iwillteachyoutoberich.com/blog/can-you-negotiate-bank-fees; Darren Wu, "Charged with an Overdraft Fee? Get Your Money Back," Wisebread, June 19, 2013, available at http://www.wisebread.com/charged-with-an-overdraft-fee-get-your-money-back.
[49] Jason Scott Johnston, "The Return of Bargain," *Mich. L. Rev.* 104 (2005): 857, 868–70.

[50] See https://www.chase.com/content/feed/public/creditcards/cma/Chase/COL00057.pdf.
[51] Wells Fargo, Consumer Account Agreement, effective April 29, 2016, available at https://www.wellsfargo.com/downloads/pdf/online.../CAA/CAA-EN.pdf.
[52] Johnston, "The Return of Bargain," 878–80, from which I borrow in the following discussion.
[53] *Veronica Gutierrez et al.* v. *Wells Fargo Bank*, N.A., No. 07-cv-05923-WHA, Findings of Fact and Conclusions of Law After Bench Trial, Docket No. 476 (N.D. Cal. 2010).
[54] CFPB Proposed Rule, p. 75.
[55] The relief afforded by the various overdraft-fee class settlements is discussed by the CFPB in CFPB, Arbitration Study Section 8, pp. 39–46 (May 2015).
[56] *Gutierrez* v. *Wells Fargo Bank*, NA, No. 07-cv-05923-WHA, Findings of **{** Fact and Conclusions of Law After Bench Trial 49 (N.D. Cal. August 2010).
[57] *Id.*.
[58] *Id.*, Order Denying Motion to Amend Findings of Fact and Conclusions of Law Based upon Discovery of the Norwest Study, Docket No. 489.
[59] In the language of game theory, I limit attention to stationary bank strategies.
[60] Where the latter point can be seen by differentiating the right-hand side in (2) with respect to *r*.
[61] Zywicki, "The Economics and Regulation of Bank Overdraft Protection," *supra* note 37 at 26, reports that one regional bank found that compared with an average of 38% of all accounts that generated overdraft fees, accounts with average balances of less than $250 had a probability of only 29% of generating such fees.
[62] See Zywicki, supra n. 37 at n. 27 and text.
[63] Marc Anthony Fusaro, "Hidden Consumer Loans: An Analysis of Implicit Interest Rates on Bounced Checks," 29 *J. Fam. & Econ. Issues*, 251, 259 (2008), as reported by Zywicki, supra note. 37 at 1167.
[64] Fusaro, "Hidden Consumer Loans," as reported by Zywicki, supra n. 37 at 26.
[65] And is given by $\delta[rB(1-u)-c(q-u)]-F(1+\delta u)$.
[66] CFPB, Arbitration Study, Section 8, pp. 39–44.
[67] Regulation E, 12 CFR Section 205.
[68] CFPB, Study of Overdraft Programs 6, June 2013.
[69] In [reg cite], upheld by the D.C. Circuit in *NACS* v. *Bd. of Governors of the Fed. Reserve Sys.*, 746 F.3d 474, 495 (D.C. Cir. 2014).
[70] Tim Chen, "What the Durbin Amendment Means for You," *U.S. News and World Report*, July 12, 2011, available at http://money.usnews.com/money/blogs/my-money/2011/07/12/what-the-durbin-amendment-means-for-you.