2021 Study

Competition Drives Overdraft Disruption

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Executive Summary

Overdraft, the fee-based service that enables consumers to make debit transactions in excess of their available account balances, attracts significant attention from financial institutions, consumers, consumer advocates and policymakers. These stakeholders generally try to balance consumer needs, financial well-being and program transparency with the cost (both reputational and financial) of providing effective programs.

The change in the U.S. political leadership and the COVID-19 pandemic have drawn fresh attention to this issue as millions of Americans struggle with urgent financial needs. Those pressures, combined with the introduction of new overdraft products and policies, required a new round of research on this important topic. This research both confirms and expands upon previous work by regulators and consumer advocates.

The research findings indicate that intense competition in financial services is driving many of the recent changes in overdraft policies and programs.

Key Findings

1. **Overdraft fee revenue is down significantly.** U.S. overdraft revenue fell approximately 57% from $40 billion in 2008 to $17 billion in 2019.
2. **Fewer people use overdraft.** The percentage of regular overdraft users (those with 10 or more transactions annually) fell by 40% to 4.9% of the population between 2010 and 2020.
3. **Challengers adopt consumer-friendly policies, win market share.** New entrants, including fintechs and challenger banks, have created solutions to better manage or reduce the cost of overdraft. These entities have experienced a 40% improvement in account acquisition since 2017. Financial institutions that haven't adopted overdraft innovation have experienced a nearly 30% reduction in consumer acquisition.
4. **Consumers understand overdraft.** Consumers, especially overdraft users, continue to demonstrate a deep understanding of overdraft and available alternatives. More than 60% of overdrafts come from consumers who intend to use the service. More than 80% of overdraft transactions come from consumers who opted in to debit card overdraft programs with the clear intention of using it to cover their payments. And two-thirds of consumers indicate that, while overdraft can be expensive, they don't want to see reductions in their access to the service.
5. **Consumers want more short-term liquidity choices.** Consumers seek convenient and relevant alternatives to overdraft. The emergence of alternatives in the market is driving consideration of new checking purchases.
6. **Larger transactions now trigger overdraft.** The proliferation of overdraft grace balances and changes in posting order practices have reduced the number of small purchases that are tied to overdraft. As a result, the average size of purchases that trigger overdraft fees has nearly quadrupled from $50 to almost $200.

Insights for Stakeholders

1. The market clearly rewards organizations that deliver economic alternatives or remediation of overdraft. The decrease in consumer acquisition from not addressing overdraft issues will continue to hurt institutions that are slow to act. This is the time to review and innovate overdraft policies and pricing, checking products and short-term credit/liquidity alternatives.
2. Financial institutions must continue to innovate and provide more low-cost liquidity options, with or without regulatory changes. While small dollar in nature and small contributors to the bottom line, these programs represent the cornerstone of financial relationships.
3. Financial institutions (especially incumbents) would benefit from clarity and consistency in regulation and consumer advocacy positions to support longer investment cycles and larger budgets for analytics and process to support alternatives to overdraft. Changing rules and inconsistencies drives uncertainty, reducing the ability to marshal support for investments.
4. Stakeholders should develop a normalized measure of overdraft cost to create actionable metrics for consumer advocates, financial institutions and policymakers. The goal is to support consumers by aligning stakeholders on relevant actions to take. Simplistic measures of overdraft revenue don't account for differences in wealth or practices and policies.

Methodology

This report covers both the demand side (consumers) and supply side (financial institutions) on this important topic, backed by proprietary research from Curinos.

Demand Side:

- An annual online consumer research study on checking purchase behaviors of approximately 12,000 respondents.
- A targeted online consumer research study on overdraft behaviors that mirrored our 2015 "Consumer Choice" study with 2,250 respondents segmented based on overdraft behavior.

Supply Side:

- A survey of disclosures and offers from 38 financial institution websites, matching the 2015 Pew Study where possible.
- An anonymized survey of behavioral data from 14 financial Institutions that range in asset size from between less than $10 billion to more than $100 billion, representing $637 billion of total U.S. consumer deposits.

Overdraft History and Industry Actions

This section reviews the key forces in the overdraft debate, including regulation, litigation and enforcement actions, advocacy and legislation. The spotlight then shifts to the industry response to these measures and examines other recent developments including the impact of the COVID-19 pandemic.

Recent History of Overdraft

From the 1990s to the late 2000s, overdraft revenue at financial institutions (including fees paid for overdraft and returned check fees) grew to an estimated $40 billion.[1] In response to growing pressure from consumer groups and others, regulators began in 2005 to revise rules, disclosure requirements and guidance for overdraft processing. Additional changes took effect after the 2008 financial crisis. These efforts resulted in significant reforms across the industry, including the following:

- **Joint Guidance on Overdraft, February 2005.** Issued by the Office of the Comptroller of the Currency (OCC), Federal Reserve System (Fed), Federal Deposit Insurance Corporation (FDIC) and the National Credit Union Administration (NCUA), the guidance set standards for disclosing fees and monitoring consumer behavior in overdraft programs. Additionally, the guidance established a best practice that enabled consumers to opt out of the program. The rule also required financial-services firms that advertise overdraft programs to present consumers with monthly and year-to-date totals of fees charged.[2]
- **Reg DD Disclosure Change, October 2009.** Beginning in 2010, all financial-services firms were required to disclose monthly and year-to-date overdraft fees to the consumer regardless of advertising status.
- **Reg E Amendment, November 2009.** The Fed amended 2010's Regulation E (Electronic Funds Transfers) to prohibit financial institutions from assessing fees on ATM or one-time debit card transactions as part of an overdraft service program unless the consumer opted in to the program.[3]
- **FDIC Supervisory Guidance, November 2010.** The FDIC issued final supervisory guidance regarding best practices for overdraft programs, directed at FDIC-regulated institutions, but adopted more broadly. These best practices went considerably beyond the requirements of Reg DD and Reg E, including:
    - o Overdraft monitoring programs
    - o Posting-order reforms for same-day transactions subject to overdraft fees
    - o De minimis limits eliminating overdraft fees for small dollar amounts
    - o Daily caps on the number of overdraft fees a consumer could incur
- **OCC and FDIC Guidance on Deposit Advance Products, November 2013.** The Office of the Comptroller of The Currency and the Federal Deposit Insurance Corporation warned banks that deposit advance loans might violate the Truth in Lending Act of 1968, effectively banning these products.
- **CFPB "Small Dollar Rule," October 2017.** The CFPB issued a rule requiring lenders to determine at the time of underwriting whether borrowers could afford to repay their loans. Ongoing debate and multiple changes in the "small dollar rule" restricted the market for short-term credit. The rules changed again in 2018 when the OCC opened the door for more financial institutions to offer small dollar loans or deposit advances to consumers as a replacement or substitute for overdraft services.

When There Isn't Enough Money in the Account

Consumers rely on access to overdraft services as a convenient way to ensure that their financial institution will honor payments even when their account is short of funds. When a charge posts to a checking account that exceeds the current account balance, (whether from a debit card purchase, check, ACH electronic payment, ATM or other withdrawal) one of several outcomes can occur:

- **Immediate financial institution coverage.** If overdraft service is in place, the financial institution extends credit to cover the charge and assesses an overdraft fee, currently ranging from $0 to $38.
- **Immediate coverage via automatic transfer.** Some financial institutions and customers have overdraft protection, which means the charge is covered by an automatic transfer from a linked savings account, credit card or other line of credit. This often also comes with a fee.
- **Declined check or ACH payment.** If the charge is associated with a check or automated clearing-house payment, the financial institution returns the item unpaid and assesses an NSF (Non-Sufficient Funds) fee of a similar amount. The payment recipient also will likely incur a separate return fee.
- **Declined debit charge.** If the charge is associated with a debit or automated teller machine (ATM) card, it can be declined immediately. The account holder must pay by a different means or won't be able to make the purchase.
- **Temporary no-fee coverage.** The financial institution may temporarily cover the overdraft without a fee for small amounts for a short period of time.

Litigation and Enforcement Actions

In the years following the 2008 financial crisis, class-action lawsuits and enforcement actions tied to overdraft have targeted specific institutions and practices around posting order and clarity of disclosures. Class-action litigators challenged the widespread practice of posting the largest transactions first, which pushed smaller transactions into overdraft status even if the account had sufficient funds when the transaction occurred. Opponents referred to the practice as resulting in a "$35 cup of coffee" — a reference to the overdraft fees that could add up on a small purchase.

The following is a summary of litigation and enforcement actions that ultimately resulted in a change of bank practices to avoid future financial and reputational risk.

- At least 38 banks settled class-action lawsuits between 2010 and 2017, resulting in restitution of at least $1.38 billion, for posting the order of transactions from the highest to the lowest amounts, a practice that increased the number of overdraft transactions.
- Four financial institutions settled class-action suits between 2017 and 2021, paying restitution of $181 million. The lawsuits accused the banks of a lack of transparency or misleading opt-in documents that caused consumers to unwittingly consent to be charged fees for debit card overdraft or other NSF transactions. Additionally, CFPB enforcement fines against four banks totaled $47.5 million.
- Seven financial institutions settled for $150 million between 2019 and 2021 for debit card "hold" practices in which consumers executed transactions based on available balance that were later assessed fees when posted against an insufficient account balance.

Consumer Advocacy

Two groups of consumer advocates studied overdraft policies in the wake of the 2008 financial crisis. The first group studied the issue and recommended actions that regulators and financial institutions could take to improve overdraft policies for consumers.

The Pew Charitable Trusts published a series of studies that highlighted overdraft practices at large financial institutions and advocated for change in several areas, including fee disclosure, daily caps and other limits and an overhaul of posting order. The Brookings Institution earlier this year called on the CFPB to crack down on overdraft fees, highlighting six small banks where overdraft fees accounted for more than half of net income.[4] These organizations also advocated for the ability of financial institutions to offer affordable small dollar loans as an alternative to overdraft, repeatedly stressing the need for alternative products to better serve low-income communities reliant on overdraft.

A second group called on regulators and legislators to ban the practice entirely or institute strict controls that would significantly limit the use of the product. The Center for Responsible Lending has identified the practice of declining all debit and ATM overdraft transactions as its ideal standard for banks, though it also has proposed a variety of other controls since the financial crisis. These advocates have presented fewer ideas for alternative forms of short-term liquidity to replace overdraft.

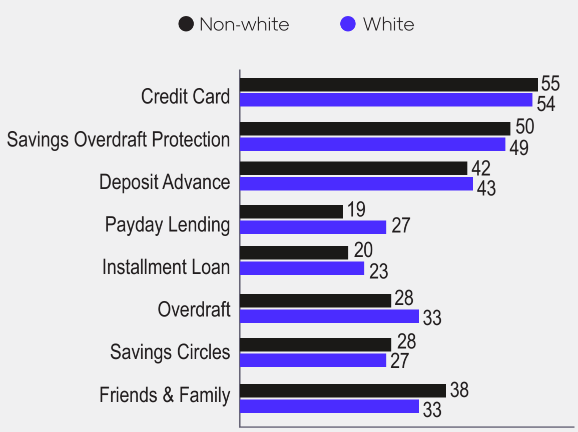
Minority Impact

Overdraft has been criticized for its disproportionate impact on Black and Latino communities. A recent report from the Financial Health Network identified that Black and Latino households were 1.9 times more likely to overdraft than white households.[9] The same report also shows that low-to-moderate income households are 1.8 times more likely to overdraft than higher income households. Due to the racial income gap in the U.S., Black and Latino households are 2.7 and 2.3 times more likely to be categorized as low income than white households, respectively.[10] This income disparity may account for the differences in overdraft use between racial groups.

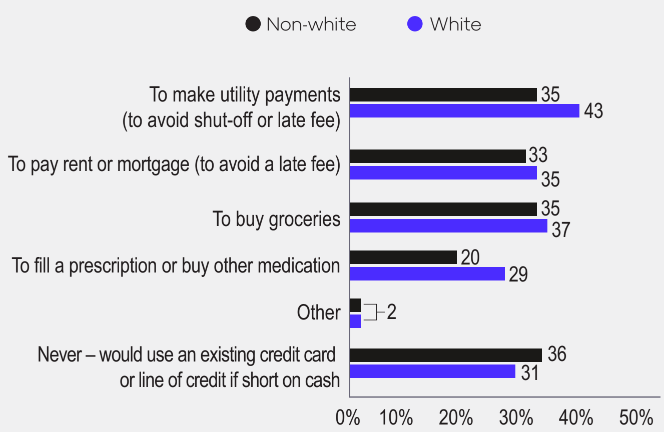
Curinos research that compared attitudes about overdraft between white and non-white respondents found the latter were less likely to consider overdraft as a liquidity tool. (See Figure 1.1.) There is also minimal difference in the reasons for use. (See Figure 1.2.)

More research is needed to confirm if the racial disparity in overdraft results from the U.S. racial wealth gap or an inherent racial bias of overdraft services.

1.1. Which of the following options would you prefer if your checking provider offered the service (%)?



1.2. Understanding there is a $35 fee for OD, in what situations would you leverage it (%)?



Non-White N = 828; White N = 1422

Industry Response

In response to consumer advocates, regulators and litigation, financial institutions have taken significant action to evolve their transaction products. These actions have changed the face of overdraft and fees, resulting in a significant decline in overdraft revenue and marked improvement to consumer experience. That evolution has picked up steam in recent months, with a number of banks making substantial announcements about changes to their overdraft policies.

In 2014, Pew surveyed 38 financial institutions to understand the prevalence of common overdraft practices across a number of asset classes.[5] Curinos has recently reviewed the online overdraft policies of those same financial institutions (with some substitutions to adjust for acquisitions and changes in the market).

Curinos found improvement nearly across the board. (See Figure 1.3.)

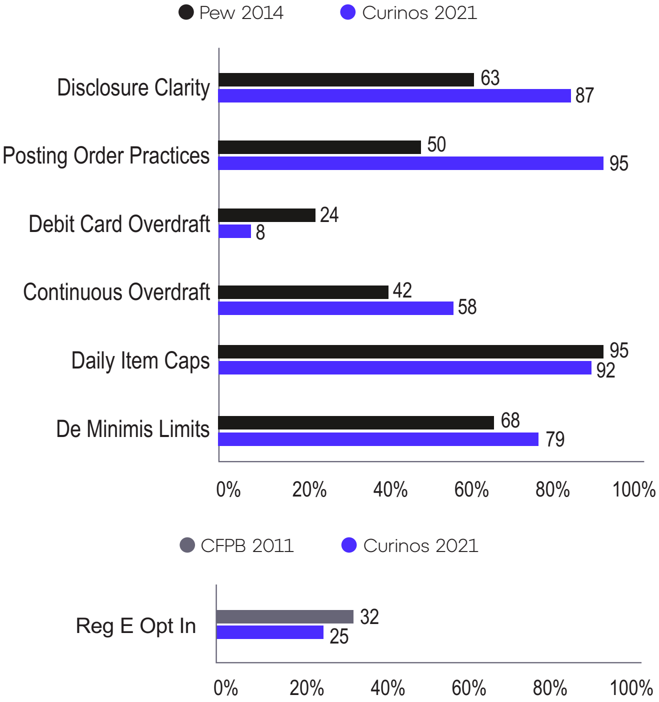
Curinos has also revisited a 2014 survey from the CFPB, titled "Data Point: Checking Account Overdraft," that relied on data from 2010 and 2011. The Curinos survey includes 14 U.S. financial institutions that have assets between less than $10 billion and over $100 billion." Given the blind nature of CFPB's study, there is no way to understand the overlap of participants, but the sample size of the Curinos survey covers 9% of consumer deposits.

While one would expect an increase overdraft fees resulting from population growth, an increase in payment transactions per consumer and more debit card transactions, overdraft from debit card fell 30% to 39% of overall transactions. (See Figure 1.4.) Similarly, the percentage of consumers who had more than 10 overdrafts annually fell by 40% to 4.9%.

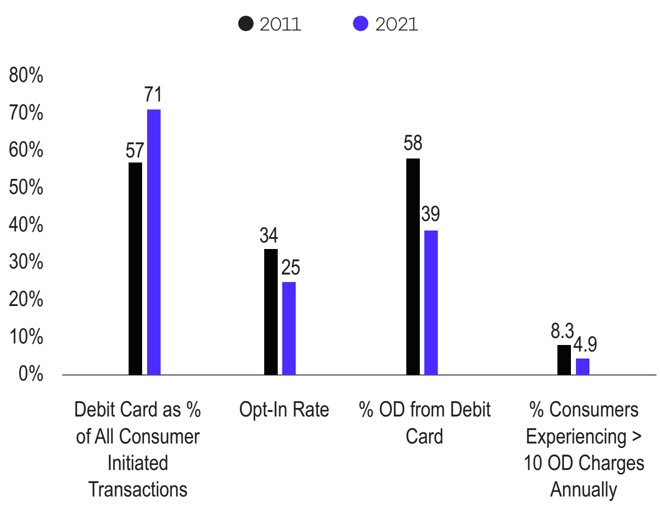
Not surprisingly, posting order changes and de minimis limits helped increase the size of average overdrafts from $50 in the 2011 CFPB study to $198 in 2019. The larger average size of overdraft items indicates that the "$35 cup of coffee" no longer represents a sizable portion of overdrafts. Today, overdraft seems to cover larger — and potentially more important — purchases than in the past.

Market forces and public awareness are behind the trends, too. The New York Times recently published an article about Ally's move to eliminate overdraft fees and has also covered new products from PNC ("Low Cash Mode") and Huntington ("Safety Zone" and "Standby Cash") that seek to be "consumer friendly." In the same vein, Forbes spotlighted new overdraft products from Chime, Dave, Brigit, Bank of America and Fifth Third in a rundown entitled "Consumers Win As Chime And Other Fintechs Jockey To Make Overdraft Fees Obsolete." Other leading publications have also written about these developments.

1.3. Changes in Overdraft Practices, % of FIs Evaluated



1.4. Observed Consumer OD Behaviors (%)



The Impact of Policy and Practice Change

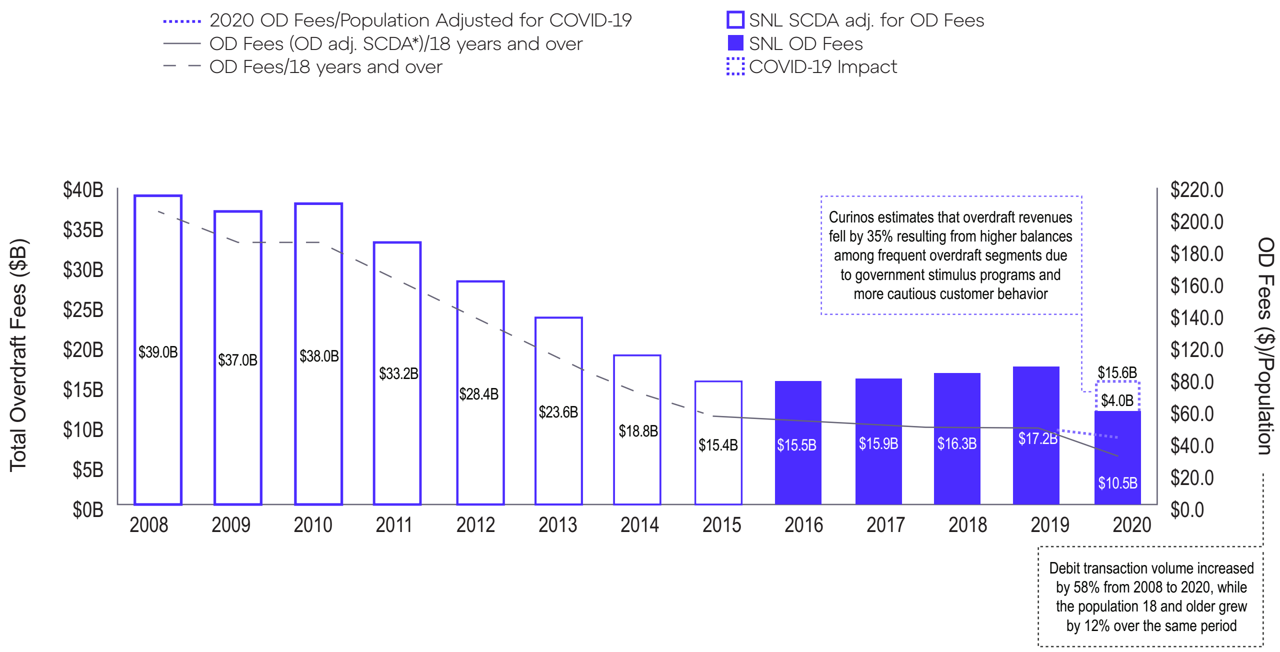
As a result of the changes in overdraft practices, fee revenue fell from an estimated $40 billion in 2008 to just over $17 billion[6] in 2019. (See Figure 1.5.) When accounting for U.S. population growth and increases in transaction volume, the decline is even greater. Overdraft fees per U.S. adult have declined by $158, or 77%, since 2008, adjusting for the growth in transaction volume during this period and the impact of reduced spending during the COVID-19 pandemic.[7]

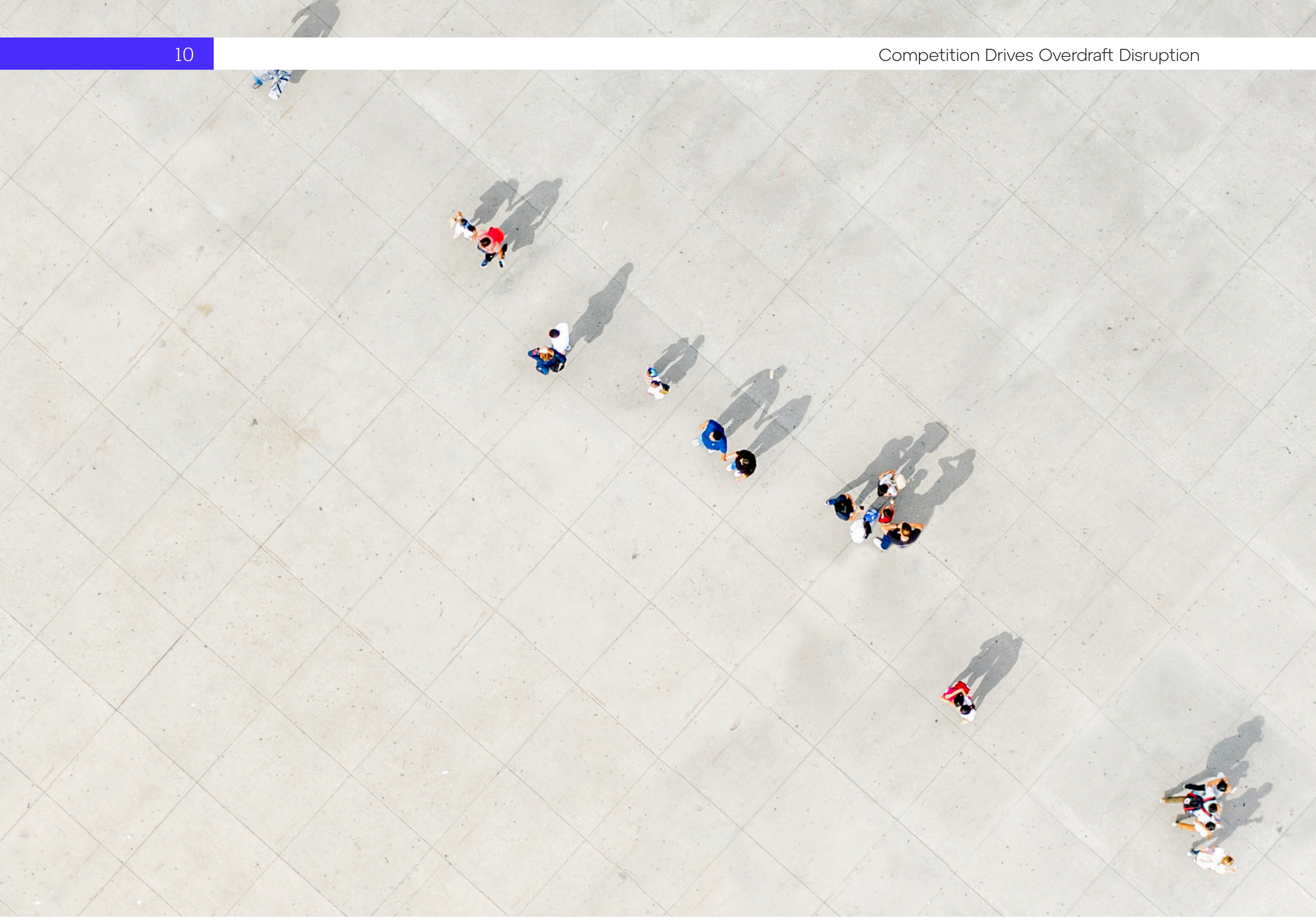
Despite significant reform, critics of overdraft continue to note that the nation's largest banks still generate sizable overdraft revenue. While larger financial institutions have a high concentration of total overdraft revenue based on the number of consumers they serve, overdraft fees represent a far smaller portion of overall revenue than in the past. (See Figure 1.6.) Conversely, smaller institutions that may have smaller total overdraft revenue drive higher overdraft fees per customer based on their practices and mix of customers.

Overdraft and COVID-19

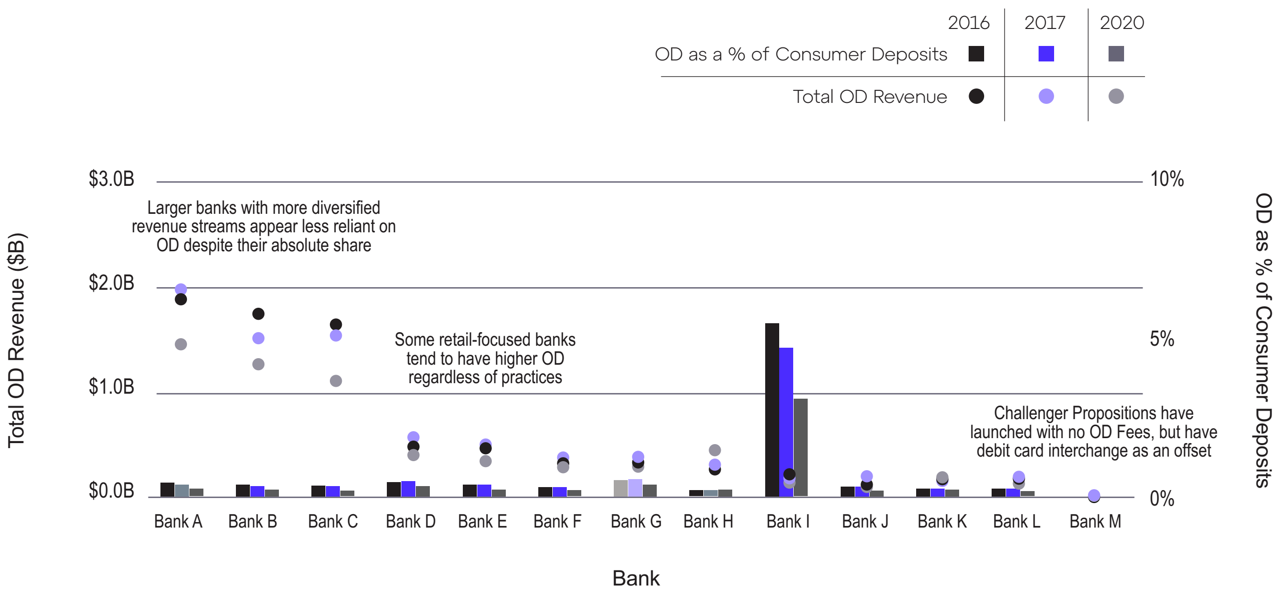
Overdraft policies and revenue trends have taken a turn during the COVID-19 pandemic. Government stimulus payments and forced behavior changes resulting from lockdowns and social distancing contributed to a significant drop in overdraft revenue in 2020 and so far in 2021. The actual decline in overdraft revenue per capita was 35% in 2020 a far steeper decline from an initial Curinos projection of a 12% drop. The decline can also be attributed to the fact that financial institutions rebated nearly 40% more overdraft transactions in 2020 when compared with 2019.[8]

1.5. Overdraft Fees, Total and Per Capita





1.6. Annual Overdraft Fee Income by Bank, 2016-2020



Note: Chart uses call report data to illustrate that financial institutions with high gross overdraft revenue often have lower per capita (proxied here with consumer deposit dollars) overdraft experiences.

What Consumers Want From Overdraft and Small Dollar Liquidity

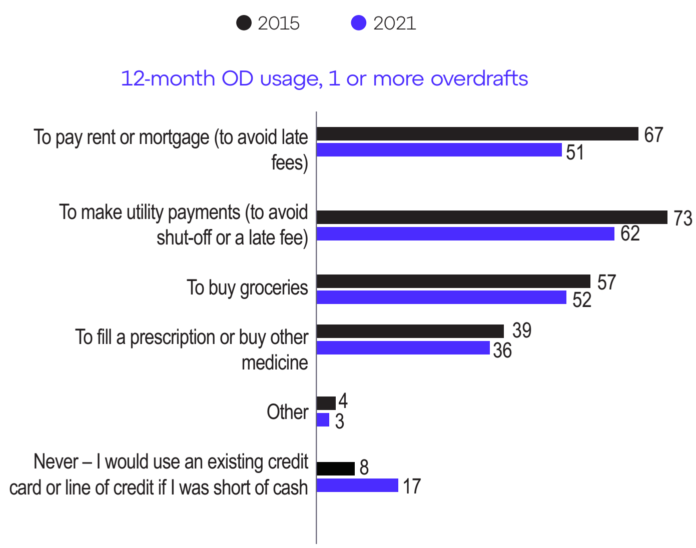
This section dives into the survey data that we conducted to gauge consumer views about overdraft and other small dollar liquidity programs, including their perceptions about available options, fees and the prospect of regulation.

While overdraft began as a way for financial institutions to reduce the exchange of incidental return items through the payment network, specifically checks, consumers have come to depend on it to cover payments. And even though the number of overdraft transactions and amount of related fees has declined since 2015, a plurality of consumers still see benefit in overdraft for specific purposes. (See Figure 2.1.)

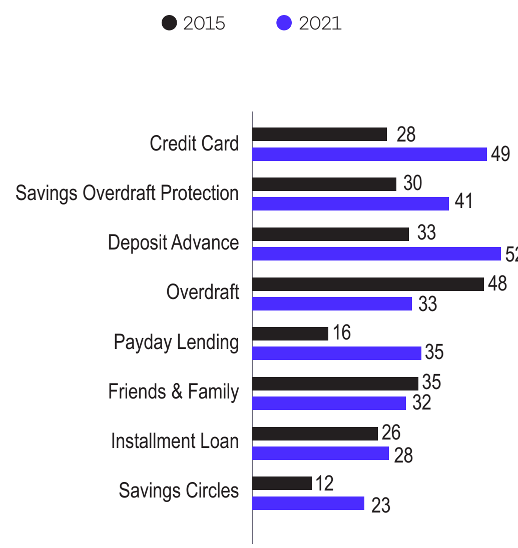
Although consumers see the benefit of overdraft, they often prefer other options like deposit advance and credit cards. (See Figure 2.2.) Preference for overdraft is impacted by awareness and the availability of alternative credit sources to meet liquidity needs.

But many of those consumers don't think they would qualify for those alternative products. (See Figure 2.3.)

2.1. Understanding there is a $35 fee for OD, in what situations would you leverage it (%)?

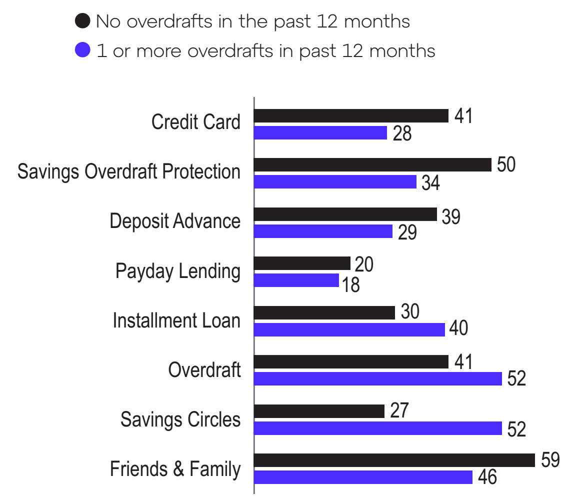


2.2. Understanding there is a $35 fee for OD, in what situations would you leverage it (%)?



2015 N = 1724; 2021 N = 2251

2.3. Given your financial situation, which of the following do you believe you would qualify for (%)?



2015 N = 1724; 2021 N = 2251

As a result, consumers still seek accounts that have overdraft features over Bank On or no-overdraft products.

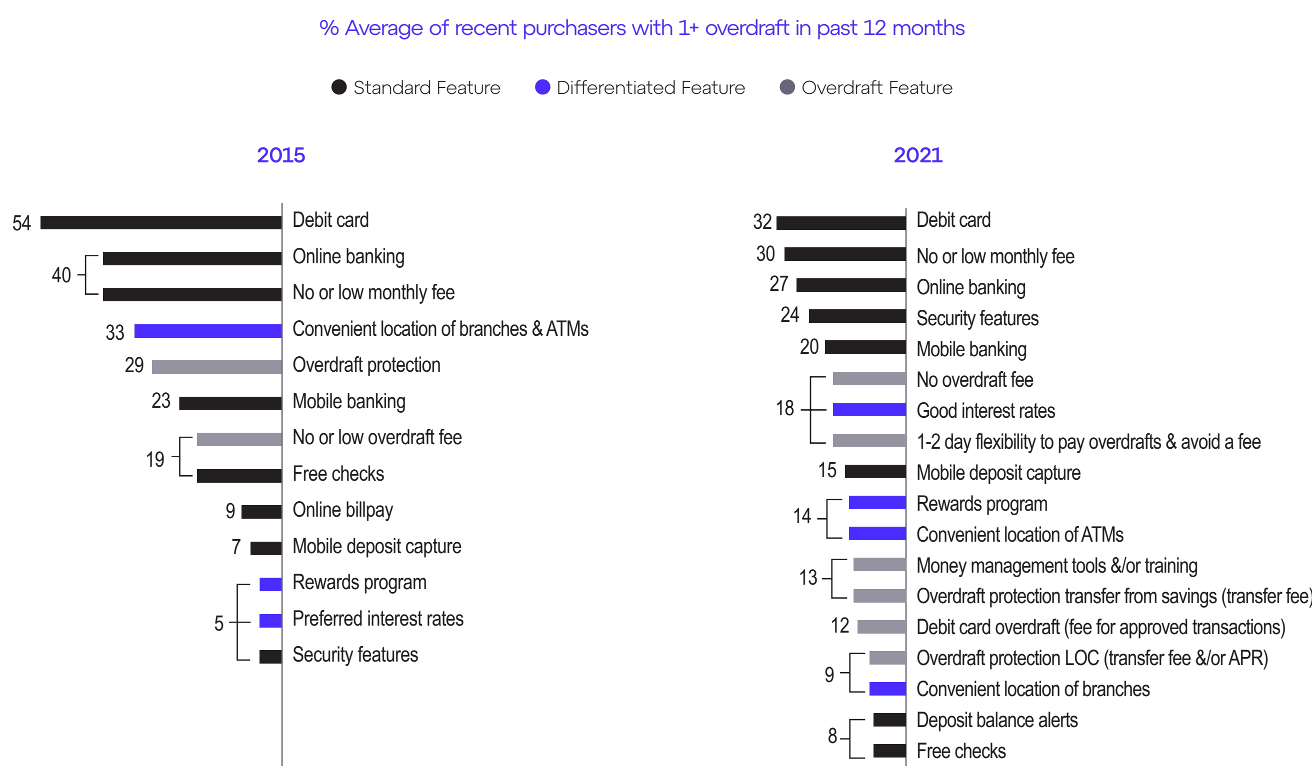
In fact, the availability of liquidity and control features appear to be a product differentiator for consumers who are shopping for new transaction accounts. (See Figure 2.4.) When broken down by consumers who do and don't overdraft, we find that overdraft users seek overdraft-related product features at two-to-three times the rate of non-overdraft users.

Interestingly, overdraft users are less likely to seek free overdrafts, perhaps because financial institutions historically haven't approved payments unless customers are willing to pay for the service. (See Figure 2.5.) Overdraft users instead prefer programs that give them one or two days to fund the payment if there is insufficient money in the account at the time the transaction occurs.

When it comes to regulation, there are certain types that consumers prefer, including fee limits and no charges on small items. (See Figure 2.6.)

Consumers see overdraft as an expensive form of liquidity, but they also consider it to be a backstop to their transaction accounts. While consumers favor some of the proposed new regulations limiting the cost of overdraft, 62% say they would reconsider their support of new regulation if the rules limited access to overdraft. (See Figure 2.7.)

2.4. Thinking about the last time you shopped for a new checking product, what were the most important features you evaluated? Select top 3 (%)



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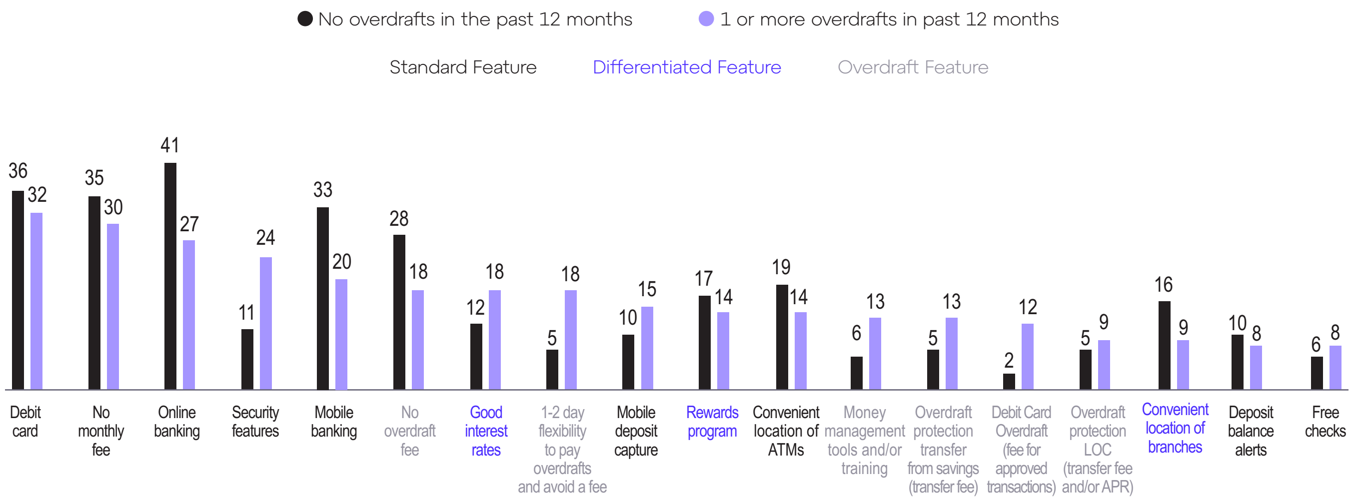
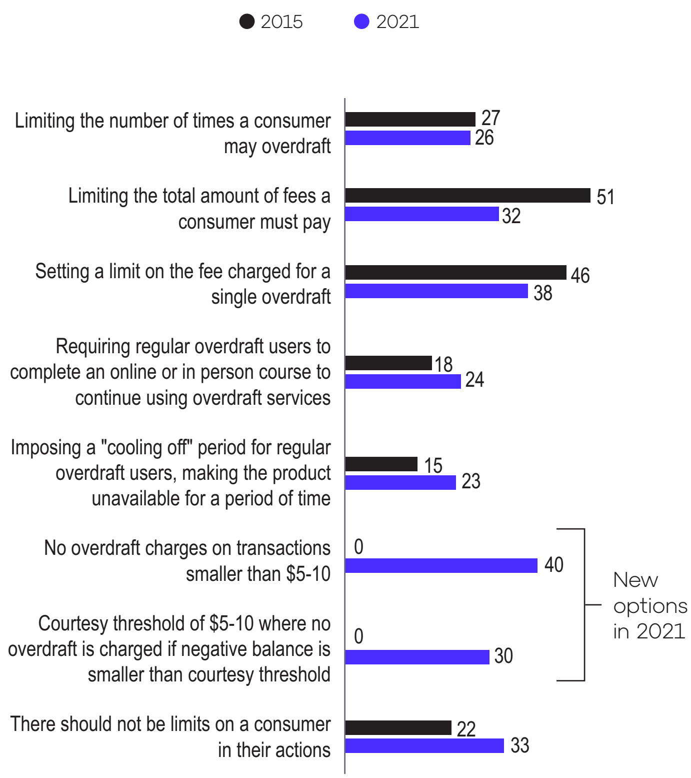
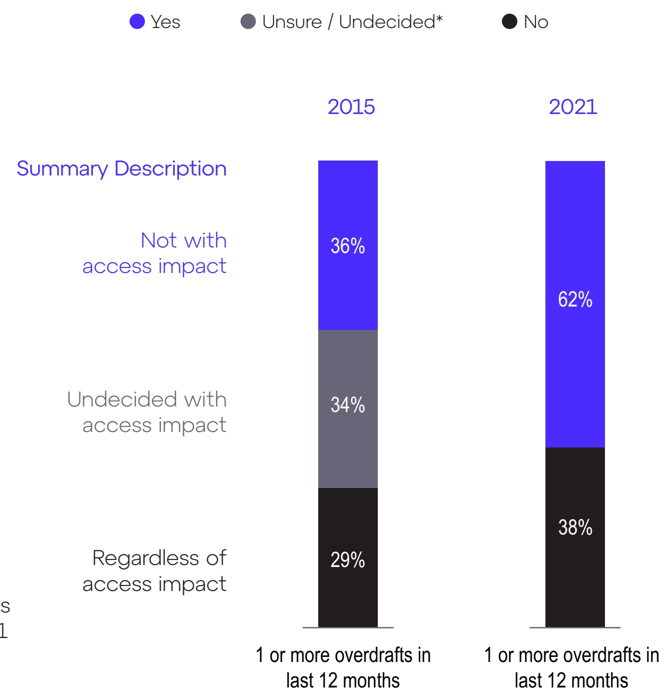


2.6. Which of the following rules affecting overdraft on consumer accounts makes sense to you? Select top 3 (%)



2021 N = 2251
Weighted average of OD respondents based on 2014 CFPB Data Point

2.7. If limiting fees reduced availability of overdraft, would you reconsider regulation? Respondent answers by year.



2015 N = 1315; 2021 N = 785
*Option for "undecided" was removed in 2021 study

Overdraft Understanding, Intent and Usage

This section explores consumer comprehension of the opt-in process and breaks down the categories of overdraft behavior.

Do Consumers Understand What It Means to Opt In To Debit Card Overdraft?

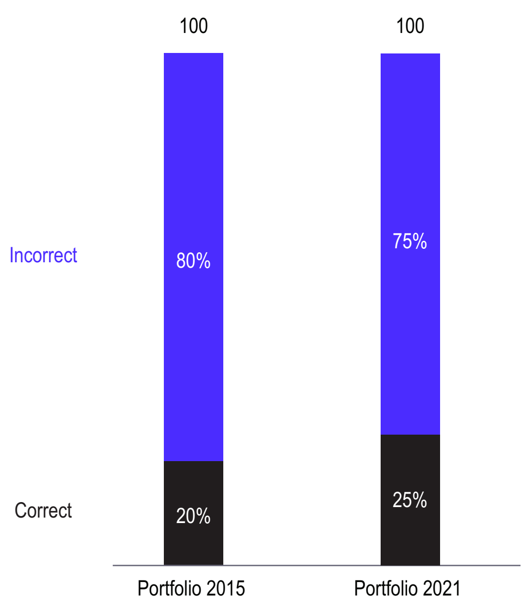
The share of consumers who correctly define what it means to “opt in” has grown from 20% in 2015 to 25% in 2021. (See Figure 3.1.) While the number of overdraft transactions and amount of related fees has declined since 2015, this suggests there has been improvement and alignment with the 20%+ of the population that leverage debit card overdraft.

Do Consumers Plan to Opt In and Use Overdraft?

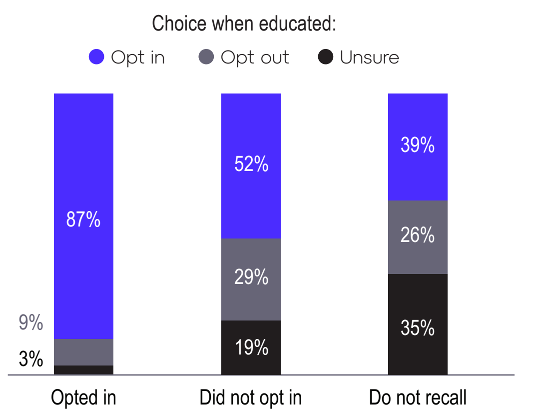
When the details of debit card overdraft opt-in mechanics were explained clearly in a survey question, consumers overwhelmingly validated their original decision to opt in or out. (See Figure 3.2.) This suggests financial institutions are doing an effective job at eliciting consumer intent.

Furthermore, it suggests that consumers who opted in are making informed choices around their payment and coverage preferences.

3.1. % of Consumers Who Correctly Identified the Definition of Debit Card Opt-In for Overdraft Services



3.2. Understanding that “opt in” means your debit card transactions would be authorized and paid into overdraft and you would be charged a fee, while “opt out” means your debit card transactions would be declined if you lacked sufficient funds, and no fee would be charged, would you:



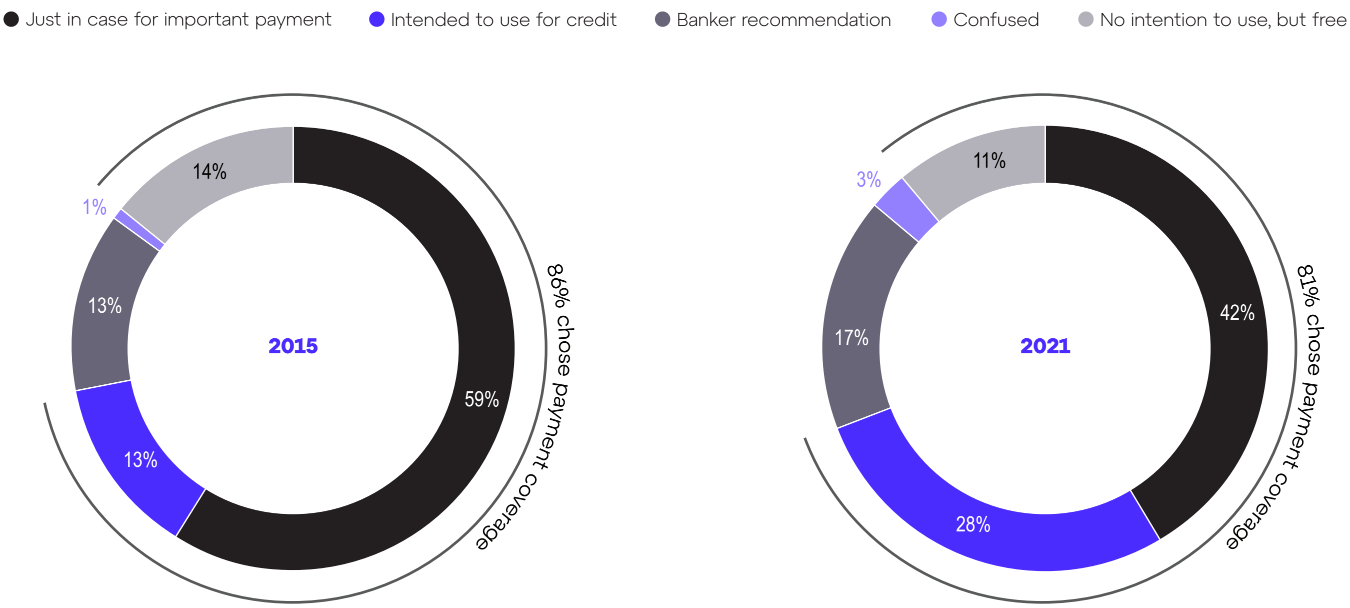
When you opened your account and were presented with the option to “opt in” to overdraft services, what was your choice?

Consistent with our 2015 findings, consumers representing 81% of overdraft transactions opted in to the service so they could use it as a form of liquidity in case an important payment otherwise might be returned or because there was no cost unless they use the service. (See Figure 3.3.)[11]

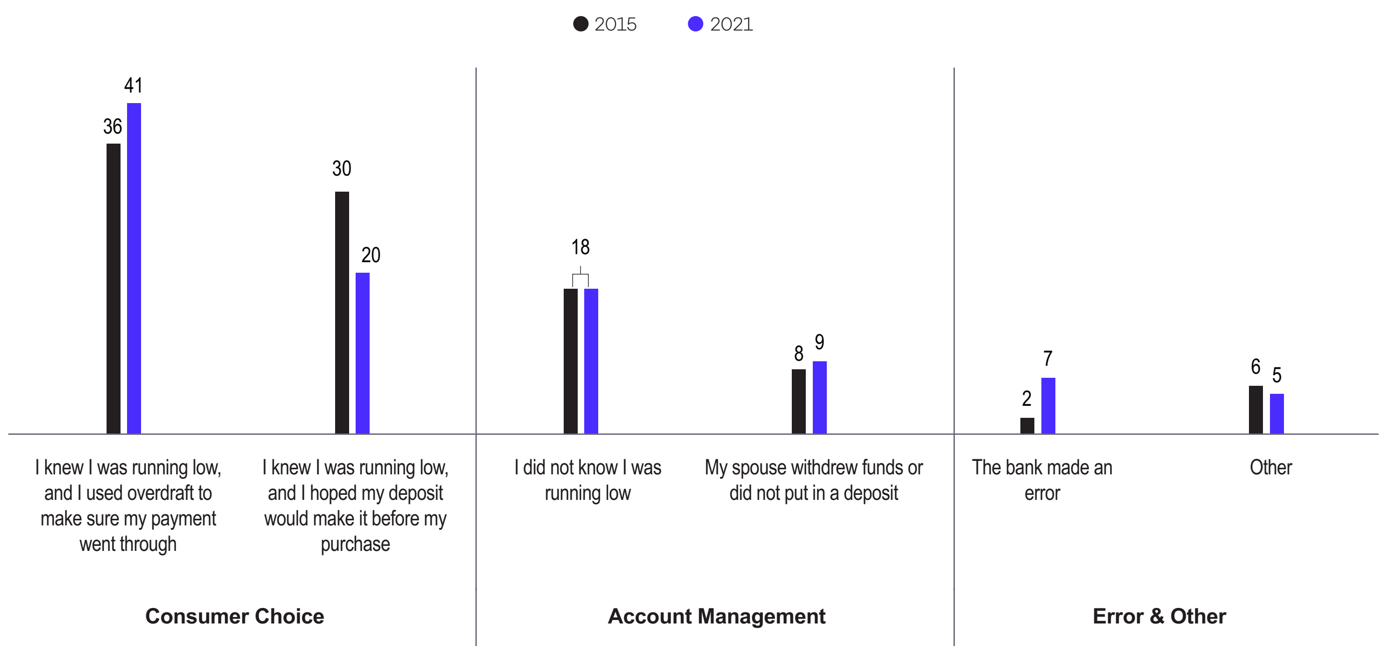
Reasons for Overdraft Use

We asked respondents who had one or more overdrafts about the cause of the most recent overdraft experience. Consumers reported little change from the 2015 study about the reasons why they triggered an overdraft payment, with nearly two-thirds saying it was a conscious choice. (See Figure 3.4.)

3.3. What was your primary reason for opting in?



3.4. Thinking back to your most recent overdraft experience, what was the cause?



Overdraft Users Aren't All The Same

To better understand the different circumstances and attitudes among overdraft users, Curinos sought to identify patterns among overdraft users of different frequencies. Curinos performed clustering analysis on the 2,251 respondents to the 2021 Curinos overdraft consumer survey, breaking them into attitudes and financial status. (Detail on the full methodology can be found in the appendix.) Two sets of clusters are presented, each aiming to better understand one of two overdraft behaviors:

- Infrequent Users — 80% of users representing 32% of overdraft transactions
- Frequent Users — 20% of users representing 68% of overdraft transactions

Within each of these behavior groups, the analysis demonstrates that consumers have different motivations and needs relative to overdraft. As a result, a one-size-fits-all policy or approach may not work.

Key Takeaways for Frequent Overdraft Users

Attitudes towards money, rather than financial circumstances, are a primary driver of frequent overdraft. (See Figure 3.5.)

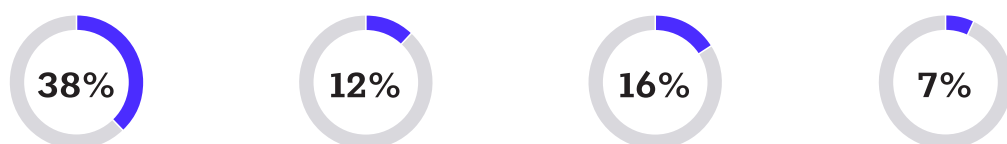
- Lifestyle Users and Overconfident Managers said it is very important that others think they are financially successful.
- Risky Avoiders were the least likely to frequently overdraft and were also the least likely to think it was important that others viewed them as financially successful.
- Lifestyle Users and Limited-Options Users, the two clusters most likely to frequently overdraft, report feeling out of control about their finances.
- Lifestyle Users are the most likely to frequently overdraft, even though they have higher credit scores, incomes and savings than any other cluster.
- The Overconfident Managers cluster has higher income and better credit than the Risky Avoiders cluster and has a higher concentration of frequent overdraft users.

3.5. Four Clusters of Users Most to Least Likely to Be Frequent (>=10) Overdraft Users

Four clusters below include all Frequent Overdraft Users, as well as Infrequent Overdraft Users and Non-Users who share their attitudes and demographics

Most likely to be a frequent overdraft user — Least likely to be a frequent overdraft user

% of group who are Frequent Overdraft Users



	Lifestyle Users	Overconfident Mangers	Limited-Option User	Risky Avoiders
Financial Factors (credit score, income, savings)	High	Above Average	Low	Below Average
Defining Traits	Don't manage their day-to-day finances well and feel out of control	Confident in ability to manage their day-to-day finances	Pessimistic about financial future and feel lack of control	Worried about unexpected expenses and view overdraft as a safety net
	Very important that others think they are financially successful	Confident about financial future and present	Struggle with debt and paying bills	In control and confident about managing their money
	Use overdraft as short term credit	Important that others think they are financially successful	Opted in as a safety net in case they need to make important payments	What others think about their financial success is not important

Key Takeaways for Infrequent Overdraft Users

- Lack of control and poor day-to-day financial management. (See Figure 3.6.)
  - o The two clusters most likely to infrequently overdraft both feel out of control and report not managing day-to-day finances well.
  - o The two clusters least likely to overdraft are confident in managing day-to-day finances and feel in control of their finances.
- Lower credit and income overall
  - o Overall, the Infrequent Overdraft clusters have lower incomes and credit scores than the frequent overdraft clusters
  - o The Non-Overdraft Users cluster has higher income and better credit than any of the other infrequent overdraft clusters, all of which are more likely to have Infrequent Overdraft Users

The Curinos survey oversampled frequent overdraft users and overdraft users, so while we can identify consistent sub-groups within frequent and infrequent overdraft users, we cannot draw strict conclusions about the distribution of these types of consumers relative to the general population. The sample is robust enough, however, to sufficiently highlight patterns of demographics and attitudes that are highly predictive of frequent overdraft behavior.

Findings Support Previous Research

The analysis presented here adds to a growing body of research about frequent overdraft users. A 2017 report from the CFPB called "Data Point: Frequent Overdraft Users" focused on understanding the circumstances leading to frequent overdraft.[12] The report found that while overdraft users had lower monthly deposits than non-overdraft users, the deposits weren't related to the frequency of overdraft use. The report concluded that "The account usage characteristics and circumstances of frequent overdraft users

3.6. Four Clusters of Users Most to Least Likely to Be Infrequent (<=10) Overdraft Users

Four clusters below include only Infrequent Overdraft Users and Non-users

Most likely to be an infrequent overdraft user ← → Most likely to be a non-user

	Infrequent Lifestyle Users	Limited Overdraft: On Edge	Limited Overdraft: With Breathing Room	Non-Overdrafters
% of group who are Frequent Overdraft Users	49%	16%	15%	8%
Financial Factors (credit score, income, savings)	Above Average	Low	Below Average	Above Average
Defining Traits	Don't manage their day-to-day finances well and feel out of control Very important that others think they are financially successful Confident about long term outlook	Pessimistic about financial future and feel lack of control View overdraft as safety net Struggle with paying bills, but less debt-burdened	Have enough to pay bills Feel relatively comfortable and confident about managing money Appearing successful is somewhat important	Not important if others think they are financially successful Confident about both day-to-day finances and financial future

vary considerably," meaning frequent overdraft users had a mix of credit scores, deposits and transaction preferences.

Earlier this year, the Financial Health Network found that among checking account holders, low-and-moderate income households are 1.8 times more likely than non-low-and-moderate income households to have overdrafted their accounts. Consumers with tighter cash flows are more likely to overdraft on occasion — this is in line with what the CFPB has shown previously.[13]

Disparities in frequent overdraft become very apparent between "financially vulnerable" and "financially healthy" consumers. Among households that overdrafted their accounts, the number of annual overdrafts for "financially vulnerable" households was 9.6 compared with 2.0 for households that are considered to be financially healthy.[14] The group assessed respondents' financial health with a framework based on eight questions, including "spend less than income," "pay bills on time," "have manageable debt" and "plan ahead financially," in addition to insurance held, liquid and long-term savings and credit score. Many of these measures of financial vulnerability are also observed in the clustering analysis, demonstrating that factors beyond income and credit score drive and predict frequent overdraft usage.

The Competitive Market

This section explores how overdraft innovation has become the centerpiece of many new entrants that are challenging traditional banks. Their efforts have also prompted many of the traditional players to evolve their offerings. New technology and a focus on the importance of financial health have driven more innovation than have regulatory actions. These market-driven innovations have a positive impact on consumer consideration and purchase. Furthermore, they provide competitive advantages to the financial institutions that adopt them.

Safe Money Accounts — No Overdraft

Introduced 20 years ago as a partnership between regulators and a coalition of financial institutions, Bank On drove adoption of Safe Money Accounts with no overdraft and fixed fees. Banks and credit unions comprising more than 50% of the U.S. deposit share currently offer a Bank On certified account.[15] Regulators, leveraging their influence over their constituent financial institutions, drove adoption of these accounts nearly ubiquitously across larger organizations, with thrift and credit unions taking them up voluntarily.

Key attributes of the accounts, based on Bank On standards,[16] include:

1. Transaction account with debit card or prepaid card product
2. Minimum opening deposit of $25
3. Maintenance fees of $5 or less or $10 with ability to waive two different ways (eg direct deposit or transaction minimums)
4. No ability to overdraft and no fees for returned transactions
5. Basic features such as call center, bill pay, e-statements, check cashing, online or mobile banking (if available at institution)

Adoption of these accounts has been slow, but has grown as an accommodation to consumers who have previously charged-off and couldn't qualify for an account with overdraft privileges. Based on anecdotal accounts and consistent with our 2015 research, consumers have shown less interest in the account when compared with accounts that offer the ability to overdraft. Interestingly, these accounts have grown more popular during the pandemic, with Bank of America announcing that its SafeBalance product experienced a 40% increase in account growth between September 2020 and September 2021.

Essentially, these accounts support consumers who no longer qualify for products that support overdraft, providing a low-cost alternative within the traditional banking industry. Regulators in Canada and Australia require banks to offer similar accounts.

No-Charge Cure Periods

Debuted in 2010 by Huntington, "24-Hour Grace" leveraged antipathy towards large financial institutions that received bail-out funds during the 2008 financial crisis and introduced a 'fair play" banking concept. The bank simply notified consumers of overdraft items and provided them at least

Innovative Offerings

Bank of America's SafeBalance Account

No overdraft fees. If account doesn't have sufficient funds, transactions will be declined. If account is overdrawn, no overdraft fee charged. Debit card access, online bill pay and transfers, no checks. $4.95 monthly fee, waived when enrolled in Preferred Rewards.

M&T's MyWay Checking

No overdraft fees. If account doesn't have sufficient funds, transactions will be declined. If account is overdrawn, no overdraft fee charged. Debit card access, online bill pay, no checks. $4.95 monthly fee, waived with one or more transactions.

Other examples:

Huntington 24-Hour Grace

Designed to give consumers more time to make a deposit in order to avoid an overdraft fee. No fee is charged if the deposit is made before midnight the next day and brings the account to a positive balance.

Other examples:

PNC Low Cash Mode

No non-sufficient funds fee, maximum of one $36 overdraft item fee per day, customized alerts when balance is low and 24 hours to make a deposit that brings the account balance above $0 to avoid an overdraft fee. Payment control allows consumers to choose to pay or return individual checks and ACH transactions (not debit transactions).

Chime SpotMe

Allows users to overdraw up to $200 on debit purchases with no fee. Next direct deposit will be applied to the negative balance. Users with monthly direct deposits of more than $500 are eligible to enroll. Limits determined by Chime based on account activity and history. When SpotMe negative balance is repaid, consumers can leave a "tip."

Other examples:

$50 $100 $50 $50

24 hours (roughly one business day) to fund their account. The strategy, which sought to end the practice of notifying customers of overdraft fees after the damage was done, contributed to outsized consumer acquisition growth for Huntington. The program was so successful that Huntington later extended it to small business accounts. Wells Fargo followed suit in 2017 and other financial institutions later also adopted similar programs.

PNC expanded on the innovation this year by capping overdraft fees and discontinuing charges for returned items. The bank also gave consumers the option to choose whether to cover one or many items with an undisclosed overdraft limit. The enhancement is intended to engage the consumer in choosing whether to pay the overdraft(s) and receive a fee or return the insufficient items without a fee.

Generally, these cure periods address incidental overdrafts that are incurred by a significant share of consumers, over half of whom become positive within three days.[17]

Free Overdraft

Expanding on de minimis limits, neobank providers offer consumers with established direct deposits of $500 (a marker of lower probability of default) the ability to overdraft up to $200.

Ally, as an example of a direct bank with limited exposure to overdraft, recently eliminated overdraft and NSF fees altogether. Ally's smaller customer base made this strategic decision easy, as it had limited overdraft revenue to begin with. Chime, meanwhile, says it will still pay items and is offering free overdraft. Other providers are less specific. And Santander recently announced it would waive overdraft fees for accounts that are overdrawn $100 or less.

Immediate Check Deposit Availability

To support customers who don't have regular direct deposits but who may need immediate availability of deposits, some organizations have partnered with providers to offer immediate check validation and bonding. The service enables financial institutions to make mobile, ATM or overdraft fee. While providers generally charge a fee for the service, the consumer can weigh the cost against potential overdrafts or short-term credit.

Access Money Faster

TD FastFunds

Get TD FastFunds in 3 easy steps:

1. Bring your checks to any TD Bank
2. We'll verify which checks are eligible
3. You choose which eligible checks to process
   For a 3% service fee ($5 minimum), your money will be available on the spot

PNC Express Funds

How it works:

1. Deposit your check through the PNC Mobile app, a. PNC DepositEasy ATM or with a teller
2. Choose standard funds availability or PNC *Express Funds*
3. Acknowledge fee if using PNC *Express Funds*
4. Use your money for withdrawals and purchases **immediately**, or wait for standard access to funds

Early Access to Direct Deposit Available

chime Capital One axos BANK Huntington

Fifth Third Bank MoneyLion Varo

Early Access Direct Deposit

Fintechs have created innovative marketing for early access to direct deposits. This strategy gained prominence and earned advertising through the pandemic, forcing national banks to explain why government-issued stimulus checks took up to two days to arrive in the customer's account. The idea didn't start with fintechs; many credit unions and mutual associations have provided early access to ACH credits for decades (even though ACH risk experts recommended they change the practice to avoid settlement risk and reversals). Like no-charge cure periods, early access to direct deposit addresses timing mismatches of payments and payroll deposits that impact most infrequent overdraft users. The sustainability of this practice is unclear, especially if payroll providers adopt real-time payments (RTP) that provide more time and certainty.

Low-Cost and No-Cost Deposit Advance

Leveraging joint guidance from the Fed, OCC, FDIC and NCUA about offering small dollar loans, neobanks have reintroduced lower-cost deposit advance products to address small dollar lending needs in addition to free overdraft buffers. The standalone or advance products are being

Cash Advance for the 21st Century

Dave Advance Services

Dave provides up to $100 for app users with a connected deposit account and $200 for Dave bank account users. Dave requires at least two direct deposits of $200 or more to qualify. Dave membership costs $1 per month and customers have the option to "tip" Dave after receiving the advance. The payback date is automatically set to the customer's next payday, but customers can pay back the advance early, either entirely or in part.

MoneyLion Instacash

MoneyLion offers $250 in cash advances to linked deposit accounts for no cost besides an optional "tip." To qualify, the linked account must be active for more than two months, have recurring direct deposits and a positive balance and a minimum average balance the day after the customer receives the paycheck. The advance amount is automatically deducted from the account on the due date, determined by pay or recurring deposit cycle. Consumers are eligible for advances equal to 30% of the recurring direct deposit. Advances can be delivered in minutes for $4 into a MoneyLion account or $5 into an external account.

Brigit

Brigit offers $250 in cash advances to linked deposit accounts for a monthly fee of $10. To qualify, the linked account must be active for more than two months, have three or more recurring direct deposits, a positive balance, and a minimum average balance the day after the customer receives the paycheck. Auto advances will send cash automatically to prevent overdraft fees. Repayment occurs automatically on the same day the account is scheduled to receive a deposit. The repayment date can be extended to customer's next payday, but customers can also pay back the advance early, either entirely or in part.

offered to existing consumer accounts or combined consumer checking and liquidity offerings based on the presence of direct deposit.

In addition to charging low or no fees, the proactive nature of the product requires consumers to take action to access the funds, reducing the cycle of dependency.

Small Dollar Lending

Leveraging the joint guidance from regulators, several financial institutions have evolved the application process, cost and repayment process of small dollar loans. Generally, the products work by establishing direct deposit. Once established, the loans can be requested instantly. Even more importantly, the loans can be paid over a period of 90 days or more to avoid creating cashflow shock of the borrower.

Financial Wellness Tools/Coaching

Offerings from fintechs and challenger banks seek to help consumers change their spending habits through cognitive behavioral therapy or financial coaching. These are designed to address the root cause of avoidable overspending and the resulting overdraft transactions.

Small Loans

Bank of America

Bank of America's Balance Assist offers loans up to $500 for a flat fee of $5 on a 90-day repayment term. Loans are available to customers who have had a checking account with the bank for more than one year. Must have positive account balance to apply.

Similar offers: us, Fifth Third Bank

One Finance Credit Line

One Finance Credit Line is a credit line of up to $1,000 connected to One Finance Spend (checking) accounts. Customers with monthly direct deposits can enable the credit line, which covers transactions that take the "Spend" balance below $0. There is no fee if the balance is repaid within a month and a 12% APR is applied to any outstanding balance thereafter. Deposits into the "Spend" account automatically repay outstanding balance on the credit line.

Financial Literacy 101

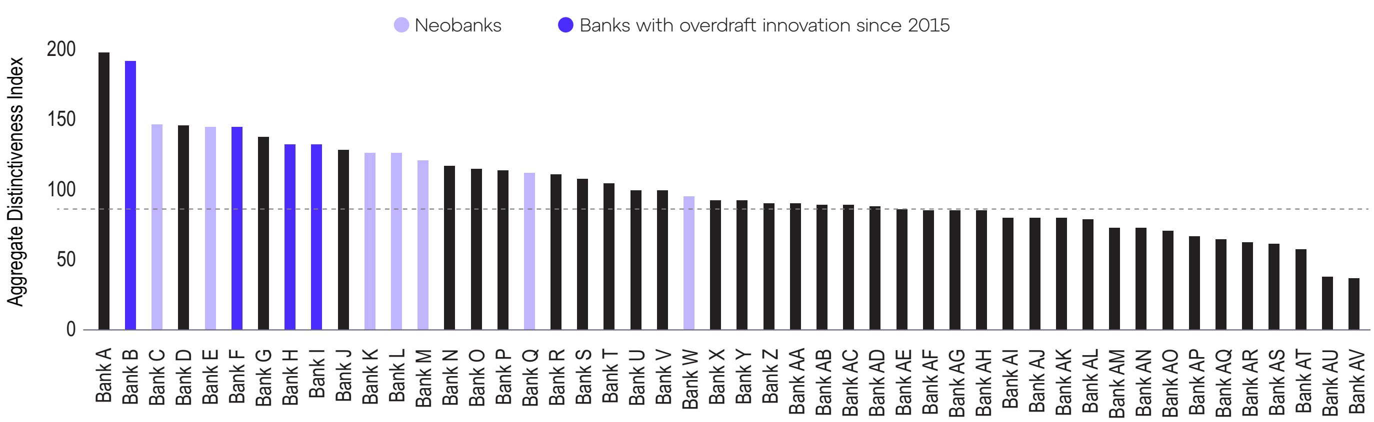
Ellevest

Ellevest, a financial platform designed to help close the gender wealth gap, offers members 50% off financial coaching sessions focused on budgeting, debt planning and building financial wellness. These one-on-one meetings with experts help members identify trends in daily expenses and spending. Membership plans provide access to investment and savings accounts, along with coaching, and range from $1-$9 per month. Sessions vary from $95 to $175 per session for members.

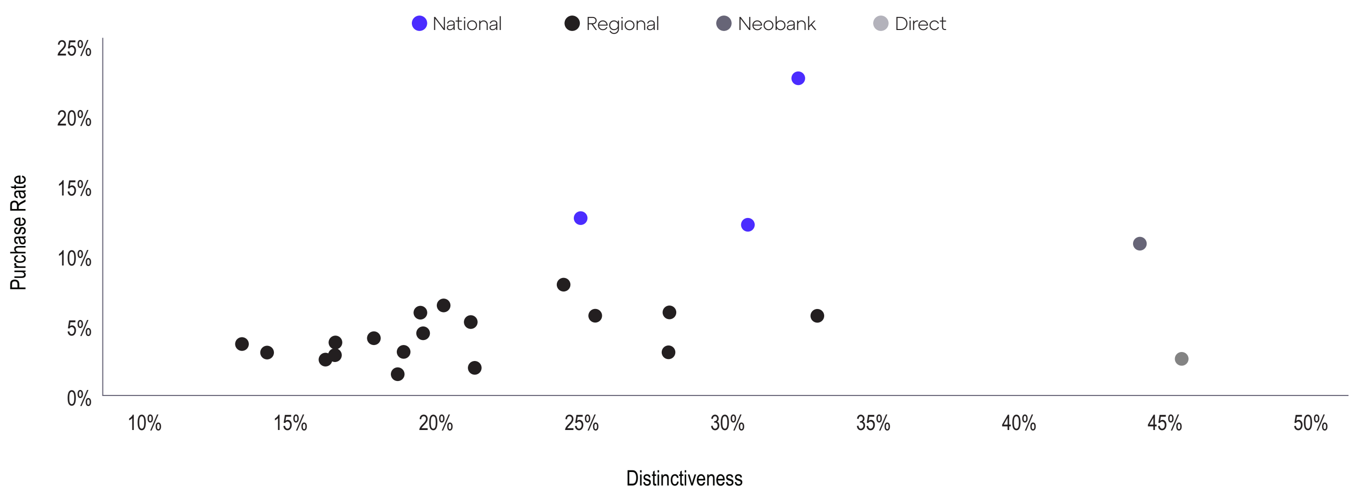
The Financial Gym

The Financial Gym uses a “fitness-inspired” approach to financial health, connecting users with a personal financial trainer to help plan, track and maintain progress. Each user develops a customized plan to meet their financial goals, like paying down debt or saving for a big expense. Monthly membership is $85 per month and $35 for students and covers sessions to plan and review goals, along with quarterly check-ins and on-call assistance to answer questions as needed.

4.1. 2020 Distinctiveness by individual bank (aggregate of respective markets)



4.2. Purchase rate vs. distinctiveness 2020 — entire market



Each dot on the plot represents one financial institution or neobank

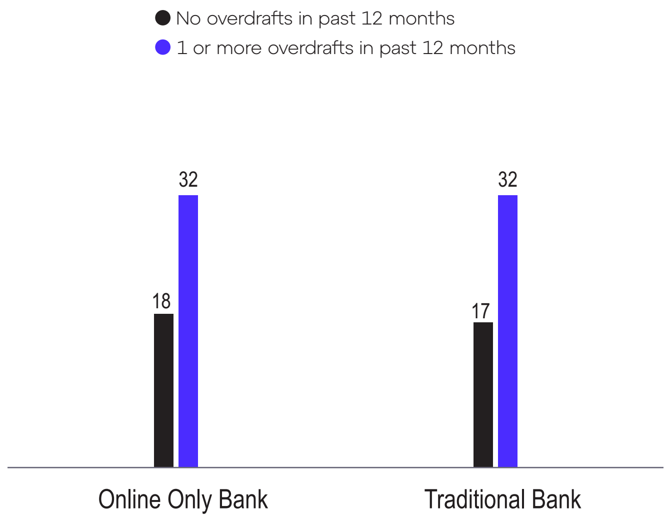
The Impact of Innovation

Consumers perceive financial institutions that have innovated on overdraft as distinctive. (See Figure 4.1.) Distinctiveness is an important and highly sought-after characteristic in a nation with thousands of providers.

Curinos research demonstrates that financial providers that are distinctive outperform their fair share of customer acquisition. (See Figure 4.2.)

Therefore, it comes as no surprise that traditional banks and fintechs that offer consumer-friendly overdraft and overdraft alternatives have seen their share of transaction account acquisition increase by more than 40%. (See Figure 4.3.) That compares with a decline of almost 30% for those that retained traditional overdraft programs with no significant changes.[18] An even clearer picture of the market emerges when we ask consumers whether they would consider an online-only or network bank for transaction services if they offered these services. Consumers no longer hold a preference for traditional bricks-and-mortar banks and instead would consider banks based on the features they offered. (See Figure 4.4.)

4.4. Average likelihood to switch banks for an overdraft feature (%)



N = 2251

4.3. Innovation and Account Acquisition

Banks with OD innovation include: Bank of America, Capital One, Citibank, Huntington, M&T, U.S. Bank, Chime, Current, Varo, SoFi Money, Discover. Purchase rate is % of existing checking base acquired each year.

Conclusion

Overdraft represents yet another polarizing topic in our political and cultural discourse, with opinions ranging from “well-educated consumers will figure it out” to “we should ban the practice altogether.” As in all things, finding moderation is likely the key.

Based on our years of work in developing financial services products, we know it is the needs of the customers that drive adoption and change. The consumer research undertaken for this paper has confirmed insights from the CFPB, consumer advocacy and industry observations about the demand for overdraft and short-term liquidity services. Among them:

1. A larger number of infrequent users accidentally overdraft due to payment-deposit timing or other oversights. These consumers represent a small proportion of overdrafts.
2. Consumers make strategic decisions about overdraft and how they seek to use it. Although incurring additional fees while using debit card overdraft doesn’t seem financially responsible to those with credit and excess deposits, it provides critical access at the point of sale to address liquidity when no other alternative is available.
3. Consumers uniformly seek lower-cost alternatives to overdraft. In the absence of those alternatives, they prefer access to overdraft to meet their needs.

From a supply-side perspective, there is a reformed and vibrant market that has largely responded to both legal and regulatory requirements and competitive threats. These trends have significant implications and lessons for financial institutions and stakeholders. The following provides some guidance for both groups as overdraft services evolve.

Financial Institutions

1. Competitors, not policymakers, will drive financial institutions to address gaps in their product suite so they can provide short-term credit alternatives to customers. If they don't provide these services, challengers will.
2. Financial institutions should review current overdraft policies and pricing to ensure they remain competitive. They should also consider ways to potentially differentiate themselves from others. There is little doubt that a growing number of institutions will offer innovative liquidity and overdraft solutions while improving traditional overdraft fee structures and policies.
3. There is an opportunity to develop short-term, small dollar lending or credit products (possibly leveraging behavioral economics) to replace overdraft over time. This will help drive financial health and give providers an opportunity to capture and maintain market share of transaction accounts.
4. Financial institutions can develop lower-cost support models for consumers with smaller wallets who are financially strapped. These must address all their transactional needs to reduce reliance on overdraft revenue. Better metrics and analytics can help manage consumer health and performance. This includes comparing unique customer cohorts to identify products that fit their needs and educate them about their financial lives.

Industry Stakeholders

1. Regulators and other stakeholders can recognize and validate business models of challenger financial institutions and neobanks that are consistent with guidance on which they can build solutions.
2. There is a need to develop and leverage metrics that squarely address problems as they emerge. Historical call reporting data is both inconsistent and doesn't capture nuances of business models. Finding effective measures that fairly compare providers on actual overdraft impact would help financial institutions identify areas for improvement rather than simply identifying differences in mixes of customer cohorts served.
3. More study is needed into how consumerism drives financial behaviors. The goal is to arrest attitudes and behaviors before they create financial challenges.

Appendices and References

I. Additional Data

A. Consumer Overdraft Choices

Many of the arguments supporting further overdraft regulation seem to assume that consumers are inadvertently opting in to overdraft programs and not choosing to use the product. Understanding consumers choices about overdraft usage is critical to a rational policy discussion on whether to further regulate overdraft, and if so, how to do it.

A.1. Is Overdraft a Choice?

To address this question, the survey explicitly asked consumers who had overdrafted in the past year as to the cause of their most recent overdraft. As shown below, most overdraft volume reflects intentionality of overdraft.

Consumers — in particular, more regular overdraft users — are largely aware of their overdraft usage and in a majority of cases intentionally choose it.

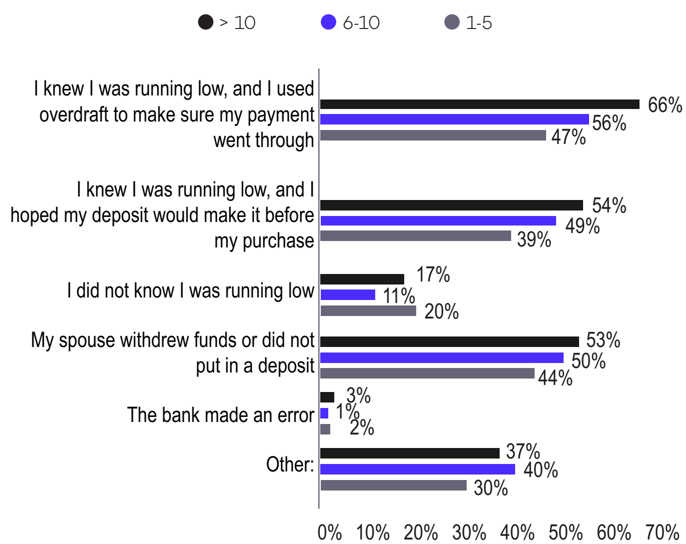
The overall consumer percentages reflected in the pie chart in the Introduction and Overview section, under Key Research Findings "Most Overdrafts Are a Choice" were weighted based on CFPB data. The CFPB provided data that split on overdraft fees by frequency of overdrafting, which we used to weight survey responses and normalize this question to total U.S. overdrafts.

A.2. Why Does Someone Choose to Overdraft?

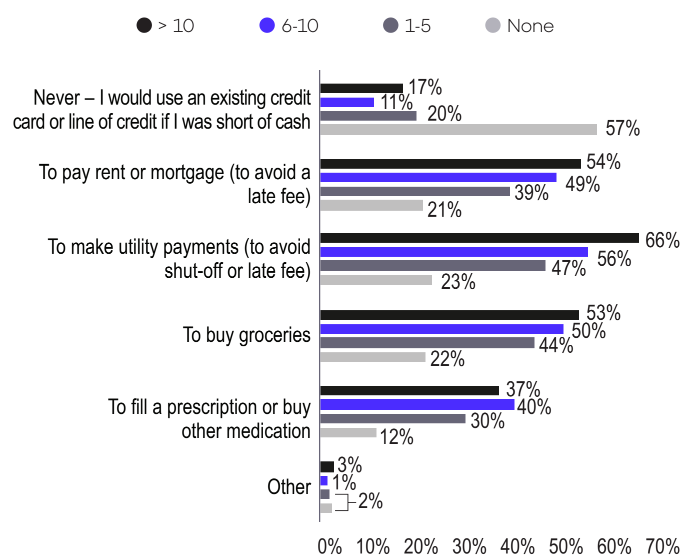
If most overdrafts involve consumer choice, what benefit does someone derive from choosing to overdraft? Clearly there is a trade-off between the cost of securing short-term credit and the use of those funds. Accordingly, the survey asked consumers when they would use overdraft — pointing out the $35 average fee involved.

The most frequent responses among overdraft users (whether occasional, frequent or heavy) were to make a critical payment — rent or mortgage, utility bill or, to a lesser degree, groceries. Among non-overdraft users, almost 60% said they would never use it, but the remainder pointed

A.1. Thinking back to your most recent overdraft experience, what was the cause?



A.2. Understanding that there is a $35 fee for overdraft, in what situations would you leverage the service. Check all that apply



out the same critical payment reasons to a lesser degree. Hence, many consumers see value and intentionally choose to use the service — and precluding that personal trade-off would likely hurt rather than help those individuals. As for those who would never overdraft, they have the options to opt out or to monitor their balances and payments.

Consumers — especially regular overdraft users — see value in overdrafts, even when knowledgeable of overdraft fees.

A.3. Do Debit Opt-In Rates Reflect Consumer Preference for Overdraft?

Another area of debate is whether consumers are choosing to opt in as opposed to somehow being pushed to do so by the bank employee or if they just happen to do so without fully understanding their choice. Actual opt-in rates for debit overdraft are low. Our survey of 14 U.S. banks showed opt-in rates had fallen to 25% in 2021 — previous sources estimated the opt-in rate at 32% in 2015.

The survey research revealed similar results, with more frequent overdrafts choosing to opt in at higher rates and Non-Overdraft Users opting in at the lowest rates.

Consumers debit card opt-in rates observed in the market are consistent with consumer intent around the opt-in choice.

Recognizing that many consumers don't understand what "opt in" means (as seen in Chapter Three), the survey explained the decision to the consumer and then asked them what decision they would make for a new account. Among Non-Overdraft Users, 28% would opt in and 32% wouldn't, while the rest were unsure. Among overdraft users, a much higher percentage would opt in, increasing with frequency of overdrafting. 56-70% would opt in while only 11-21% wouldn't. These responses are reasonably consistent with the overall opt-in rate of 32% observed in industry and mentioned above. The consistency of survey and actual opt-in rates, as well as the increasing opt-in responses for overdraft users, points clearly to consumers "choosing" to opt in as opposed to it just "happening" without their knowledge and consent.

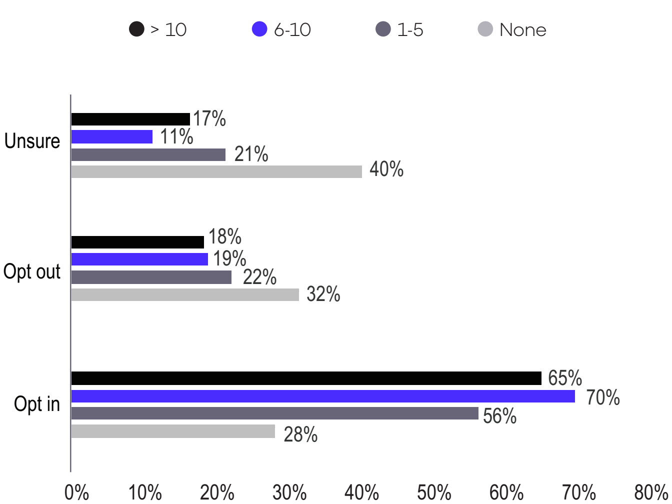
A.4. Why Does a Consumer Choose to Opt In for Debit Overdraft?

The survey specifically identified consumers who opted in to debit card overdraft and asked why they did so. For Non-Overdraft Users, almost a third opted in even though they had no intention of using it because there was no up-front fee. Forty percent of overdraft users and Non-Overdraft Users alike opted in as a "just-in-case" safety net. For heavy overdraft users, more than 25% said they signed up intending to use the service for short-term credit.

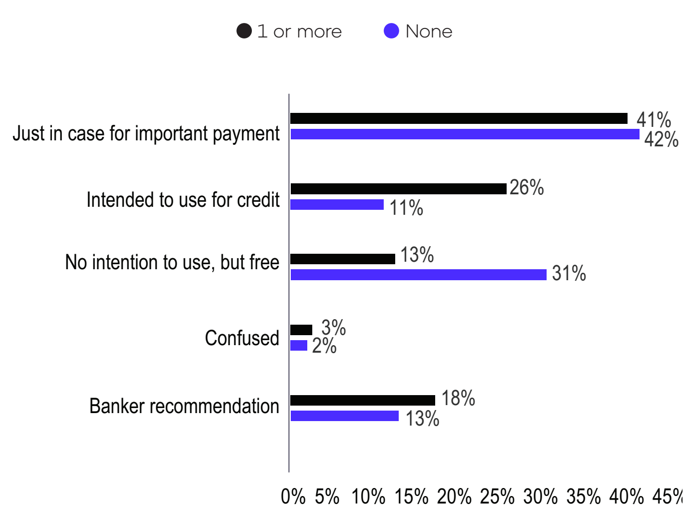
Customers who opted in apparently did so of their own volition and for reasons that reflect an informed choice.

While there are a variety of reasons by segment for using overdraft, what is clear is that most consumers choose to opt in as opposed to it being pushed on them.

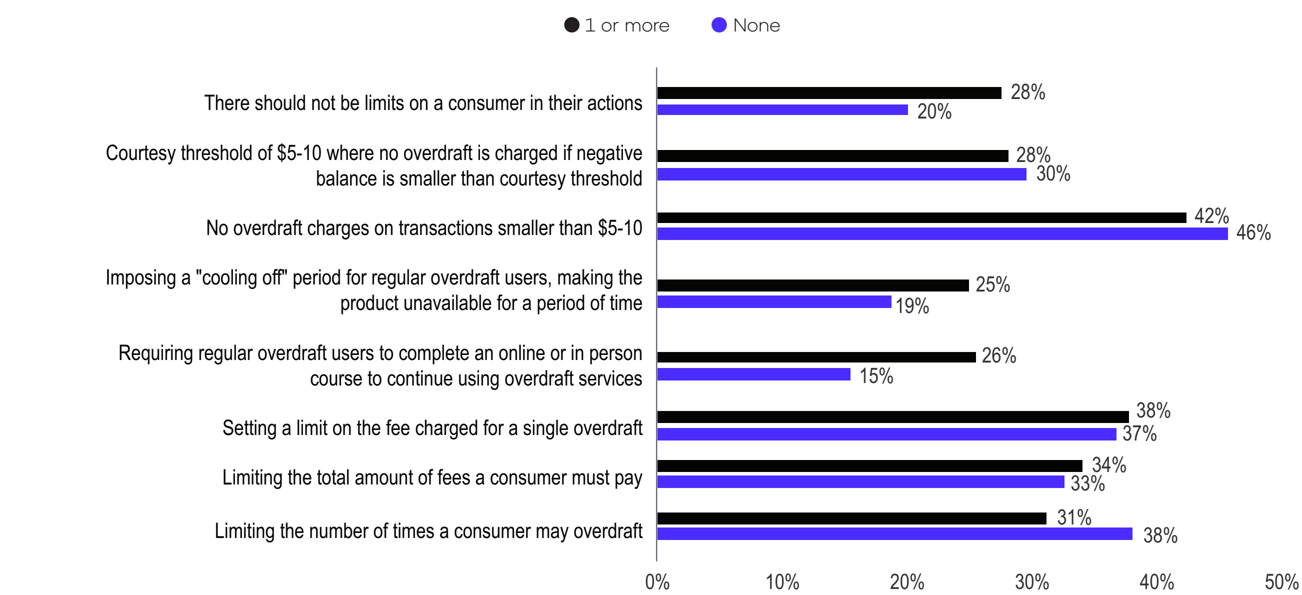
A.3. Understanding that "opt in" means your debit card transactions would be authorized and paid into overdraft and you would be charged a fee, while "opt out" means your debit card transactions would be declined if you lacked sufficient funds, and no fee would be charged, would you:
Please select one response



A.4. What was your primary reason for opting in?



A.5. Which of the following rules affecting overdraft on consumer accounts make sense to you?



A.5. What Kind of Regulation Would Overdraft Users Want to See?

In the Pew study, 80% of consumers were favorable to further overdraft regulation, at least where it would reduce consumer cost. And pluralities of consumers would like to see controls on overdraft usage and pricing.[19] The current consumer research explored what sorts of changes consumers would prefer in the event of additional regulation and separated responses into overdraft users and non-overdraft users.

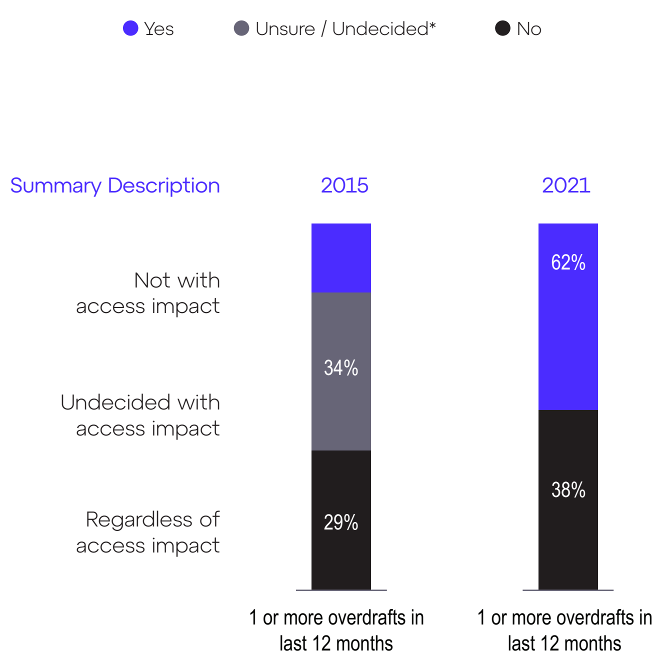
Overall, 30-40% of surveyed consumers supported price limits — either a dollar limit on an overdraft or a combined annual cap on overdraft fees. There wasn't large support, however, for measures such as education or cool-down periods that might lead to improved credit management behaviors. Only one-third of overdraft users supported capping the frequency of overdraft — though half of non-overdraft users were more willing to regulate the behavior of others.

When asked about additional overdraft regulation, all consumers supported price limits, but regular overdraft users didn't support a cap on overdraft usage.

The survey further probed consumers choosing price regulations, asking them: "If limiting fees also reduced the availability of overdraft to consumers, would it change your ranking?"

Almost two-thirds changed their response and just 38% still supported pricing regulation regardless of whether it affected their access to the service.

A.5. If OD Regulation reduced availability of OD, would you reconsider regulation?



2015 N = 1315; 2021 N = 785
*Option for "undecided" was removed in 2021 study

B. Consumer Knowledge of Overdraft

A key question for a policy discussion on overdraft is the amount and quality of information consumers have available to make informed choices regarding overdraft. This includes the effectiveness of bank disclosures at account opening and prior to overdraft situations. It also includes the availability of tools to consumers for monitoring and managing overdraft, and whether consumers use those tools. This section examines the efficacy of disclosure and consumer account information tools, as raised in public commentary and by the consumer research.

B.1. Is Overdraft Disclosure Adequate?

There is criticism around bank disclosures to consumers during the opening of checking accounts and specifically on the choice of opting in to a debit overdraft program. Some of the criticisms include:

- Bank disclosures overwhelm consumers.
- Consumers don't remember or understand overdraft opt-in rules.
- The bank disclosure process is either ineffective or designed to encourage opt in.[20]

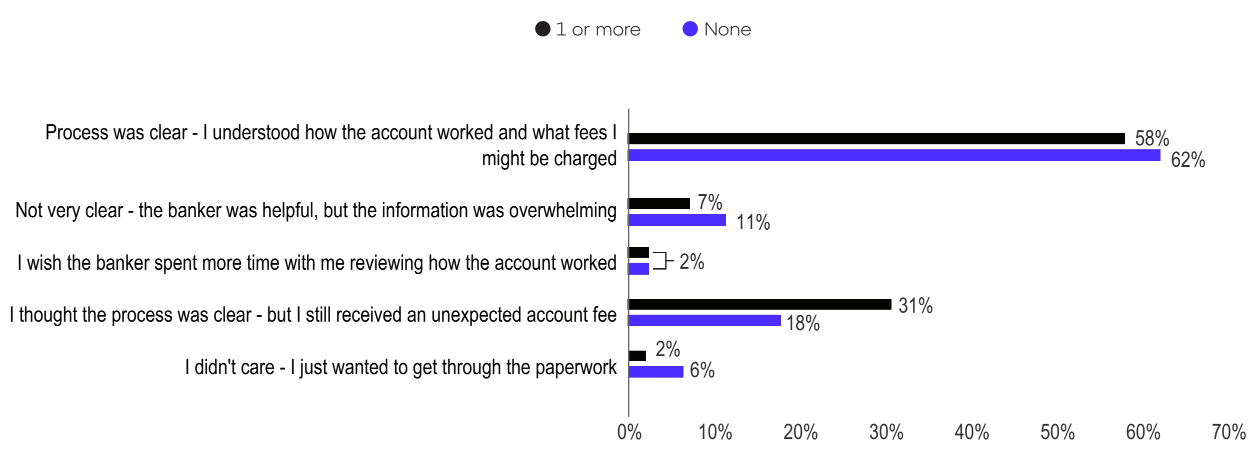
The number of different laws and rules affecting checking accounts and disclosures, include Reg B (for overdraft line of credit) Reg D, Reg E, Reg J, Reg V, Reg Z, Reg AA, Reg CC, Reg GG, Reg II, Reg NN, UCC4A, NACHA Rules (ACH), ECCO Rules (Electronic Check Presentment), and credit card payment network rules. These regulations and laws drive lengthier and more time-consuming disclosures, leading to some consumers feeling overwhelmed.

One response has been to add an additional summary, e.g., the emergence of model disclosure summary for checking accounts. Thirty financial institutions, including the 12 largest banks and three largest credit unions — covering more than half of U.S. deposits — have voluntarily adopted disclosure summaries.[21] Due to regulation and legal concerns, these documents are in addition to — as opposed to replacements for — the detailed disclosure document. Most banks welcome collaborative efforts to establish less lengthy disclosures, consistent requirements, safe harbors or other constructs for simpler, clearer communication that would lead to better-informed consumer choices and more satisfied customers.

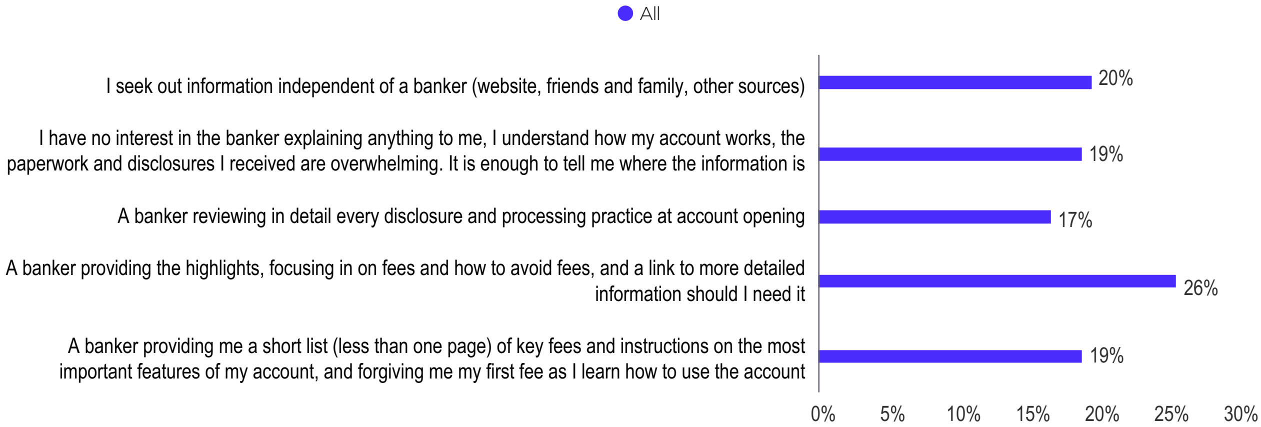
A note regarding compliance with disclosure processes: banks spend an enormous amount of time, money and technological resources to ensure consumers receive consistent and compliant experiences. Clearly both processes and compliance will differ across 10,000-plus financial institutions, and what is appropriate for each consumer and financial institution will vary based on the actual — and not hypothetical — circumstances, e.g., what products and features the bank actually has, what the specific products a consumer can qualify for. Banks uniformly avoid offering products a consumer cannot qualify for because it creates an unsatisfactory customer experience.

The great majority of consumers felt the account-opening disclosures were clear. While there is some room for improvement, it isn't clear if that means more or less information is needed.

B.1. Think back to when you opened your checking account, how effective do you feel the bank representative and written disclosure were in helping you understand your product features and fees?



B.1. I learn and remember information about how my checking account works by:



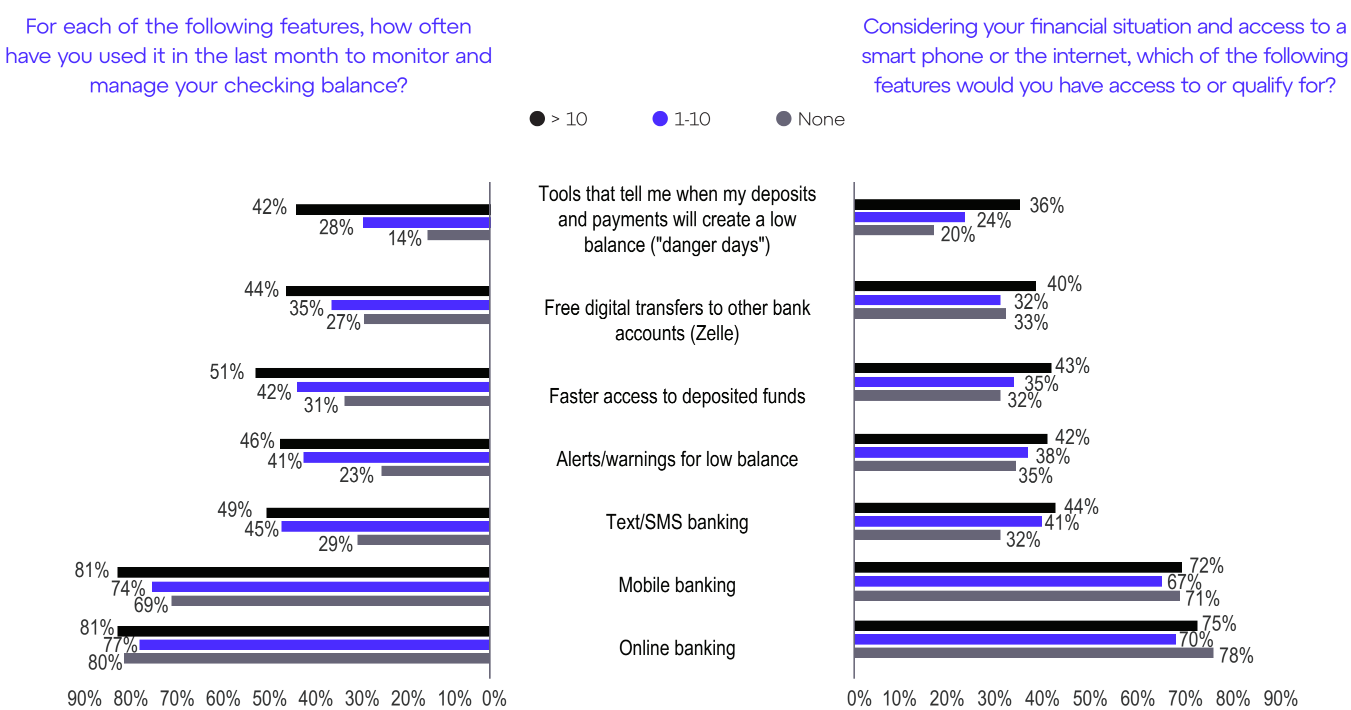
The survey asked consumers about the adequacy of disclosures at the time of opening a checking account and about how much information they wish to receive at that time. More than 80% of consumers felt the new account-opening disclosure process was clear. Where consumers complained, a large portion said the information was overwhelming. Non-overdraft users were less likely to care about the disclosure process.

Part of the problem in providing effective disclosure is that consumers are divided on whether they want more or less information when opening a checking account.

B.2. Do Overdraft Users Use Account Monitoring and Management Tools?

Traditionally, a notice of an overdraft sent by mail would take several days or longer, while notice via online banking would occur only when the consumer logs in. But this digital age of smart phone proliferation allows notice of overdraft to be immediate with instant text and email alerts to which most consumers now have access. Whether all consumers are actually taking advantage of these options to regularly monitor their account balances is another matter.

B.2. Features Used by Customers



There is some existing survey research on whether consumers are tracking their account balances and overdrafts. Pew research found that a majority of consumers are unaware of their overdrafts for up to four days[22] — presumably not the consumers who take advantage of instant text and email alerts. This is consistent with ICBA research that found that 84% of consumers monitor their accounts, but less than one-third do so more than a couple of times per week.[23] Neither source addresses the frequency of monitoring by overdraft users as opposed to all consumers.

Hence, the survey asked consumers about both access to and usage of monitoring tools, comparing regular overdraft users to non-overdraft users. Regular overdraft users have equal access to and are much more frequent users of information tools provided by banks to manage their account balances. For regular overdraft users, information tool usage likely indicates greater awareness of overdraft situations and shorter periods of time before the consumer is notified of overdraft situations for correction.

Regular overdraft users have similar access to account management tools as other users, and use these tools at significantly higher rates than non-overdraft users.

B.3. Do Overdraft Users Have Access to and Awareness of Overdraft Alternatives?

Some overdraft critics point out that a consumer would pay a fraction of the cost of overdraft if they had access to a line of credit or some alternative short-term credit.[24] Clearly there are many products that can provide access to short-term liquidity for consumers, of which overdraft is just one. Direct alternatives are overdraft transfers from a savings account, an overdraft line or credit card. Substitutes include credit cards, unsecured and home equity lines of credit. Non-bank lenders offer payday loans, social groups provide lending circles and there are friends and family.

All of the above overdraft alternatives that banks provide, however, require some form of credit qualification or, in the case of savings-linked overdraft transfers, a sufficient savings balance to cover an overdraft.[25] These are requirements that a large fraction of consumers cannot meet. Instead, many consumers must turn to non-bank lender alternatives.

The survey asked respondents whether they qualified for and used either savings or credit overdraft transfers. Customers who cannot qualify for a credit card are also less likely to have savings for savings overdraft protection. When they do qualify or have savings, they use it. This points to the value of product innovation for overdraft alternatives, and to the importance of addressing credit underwriting for small dollar credit.

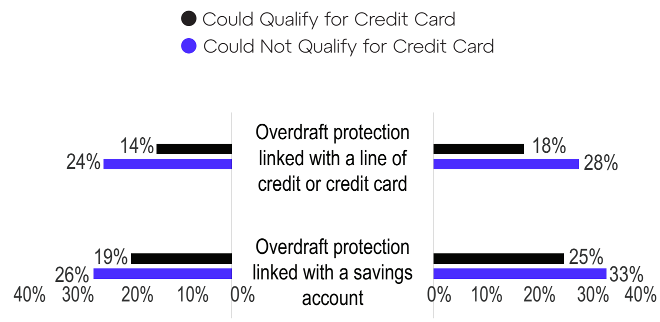
Customers who cannot qualify for a credit card are both less likely to have savings overdraft protection as well as credit overdraft protection products.

ICBA research in 2012 found that consumers were aware of alternatives to overdraft and that those who overdrafted preferred overdraft as their primary liquidity source.[26] The consumer survey also queried consumers as

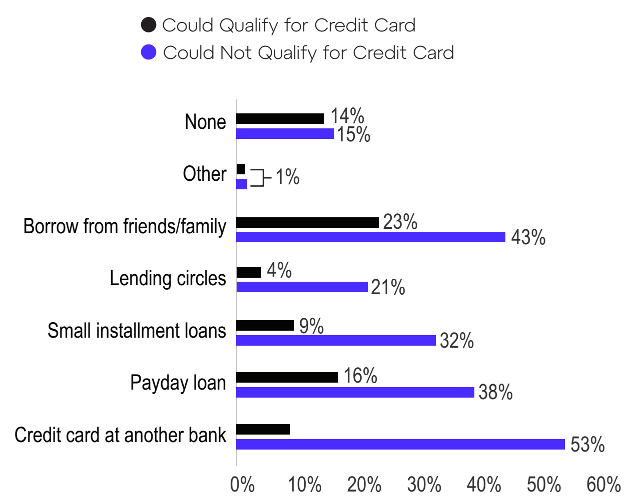
B.3. Overdraft Access and Usage

For each of the following features, how often have you used it in the last month to monitor and manage your checking balance?

Considering your financial situation and access to a smart phone or the internet, which of the following features would you have access to or qualify for?



B.3. What other options are you aware of to meet your short-term credit needs?



to their awareness of alternatives to overdraft, of which there was some but not ubiquitous awareness. Consumers who could qualify for credit were more aware of savings and credit overdraft transfers than consumers who couldn't qualify. Roughly half of both groups was equally aware of payday lenders. A quarter of those who couldn't qualify for credit was unaware of any alternative.

Further promotion of alternatives may improve awareness, but not qualification. With the support of regulators and consumer advocates, banks may be able to develop lower-cost short-term credit options through traditional or new digital channels, based on a deeper understanding of the consumer's payment and cash flow. Becoming more restrictive on credit qualification will more likely reduce the availability of alternatives and limit price competition.

Consumers who lack credit credentials are less aware than others of short-term credit options that can meet their needs.

Separate from traditional alternatives to overdraft, there is a rapidly emerging set of innovators and innovations in payments and short-term liquidity. Merchants are looking to encourage the purchase of their goods via credit and to reduce the card interchange fees they pay for card purchases. Non-traditional lenders are looking for new models that leverage mobile and online access as well as new credit scoring data. Branchless direct banks with ubiquitous brand names threaten traditional banks with lower-cost overdraft services. As a result, regardless what banks do to advance overdraft or what regulators do to limit it, the new digital disruptors will continue to expand rapidly and to redefine the alternatives available to consumers for short-term lending and will likely ensure competitive pricing.

C. U.S. Financial Institution Survey Data

The averages, maximums and minimums of the bank data are presented below:

Year	2019			2020		
Data Field	Average	Max	Min	Average	Max	Min
% Active Checking Customers	89%	100%	58%	89%	100%	59%
Total Accounts Per Checking Customer	1.45	1.81	1.04	1.47	1.82	1.03
Average Checking Balance	$6,362	$11,612	$1,777	$7,930	$15,029	$2,097
% Customers Overdraft Opt In	25%	48%	6%	25%	44%	8%
Overdraft Savings Penetration %	19%	50%	3%	17%	51%	3%
Paid Transaction % (Overdraft)	0.56%	9.60%	0.35%	0.48%	8.20%	0.29%
Returned Transaction % (Insufficient Funds)	1.68%	3.79%	0.04%	1.56%	3.14%	0.03%
Debit Card Overdraft Transactions %	38%	58%	7%	39%	63%	6%
Rebated Overdraft Transactions %	6.48%	14.80%	0.20%	9.01%	22.10%	0.21%
Waived Overdraft Transaction %	33%	41%	19%	35%	46%	21%
Average Overdraft Amount Per Instance	$198.45	$793.00	$70.14	$197.53	$458.00	$81.25
Overdraft Protection Line of Credit Penetration %	8.50%	19.80%	1.00%	8.10%	19.30%	1.10%
Average Traditional Score of ODP LOC Customers	725	768	653	729	773	655
% Utilization of ODP LOC	30%	71%	10%	30%	65%	10%
Average ODP LOC Rate	15%	21%	10%	15%	21%	8%
Average ODP LOC Outstanding Balance	$1,749	$6,755	$214	$1,416	$5,968	$139
Average Line Size of ODP LOC	$6,747	$15,952	$1,534	$6,369	$14,601	$1,570
Annual ODP LOC Charge-Off (as % of Revenue)	30%	65%	12%	32%	70%	15%
% Customers Overdraft Opt In (recent purchasers)	21%	31%	14%	24%	39%	10%

Data Field	Average	Max	Min
Average Overdraft Limit (Most Recent Month)	$798.62	$1,529.69	$273.68
% Customers Overdraft Opt In (customers who opened their account within the last 6 months)	21%	31%	14%
% Customers Overdraft Opt In (customers older than 6 months on book)	24%	39%	10%

Size of banks included in the study:

Asset Size	Banks
Under $10 Billion	3
$10 to $50 Billion	4
$50 to $100 Billion	1
Over $100 Billion	6

D. Full Comparison of Bank Disclosures Between Pew 2014 Study and Curinos 2021 Study

D.1a. Pew 2014 Results

Bank	Disclosure Clarity — good practice	Posting Order Practices — no high to low	Posting Order Practices — limited or no high to low	No Debit Card Overdraft	No Continuous Overdraft	Daily Item Caps	De Minimis Limits
Ally	1	1	1	1	1	1	1
Bank of the West		1	1			1	1
BBVA	1	1	1			1	
BMO Harris	1	1	1			1	1
BoA	1		1	1		1	
CapitalOne	1		1		1	1	1
Chase	1		1			1	1
Citizens						1	
FifthThird Bank	1		1		1	1	1
Huntington		1	1			1	1
KeyBank	1	1	1			1	
M&T Bank		1	1			1	1
PNC Bank	1		1			1	1
Regions Bank	1				1	1	1
Santander						1	
Schwab	1	1	1	1	1	1	1
SunTrust	1					1	1
TCF	1		1		1	1	1
TD Bank	1					1	1
Union Bank	1		1			1	1
USAA		1	1	1	1	1	1
U.S. Bank	1	1	1			1	1
Webster Bank	1					1	1
Comerica	1	0	1		0	1	0
Commerce Bank	0	0	1		1	0	0
Frost	1	1	1		1	1	1
Citibank	1	1	1	1	1	1	0
HSBC	1	1			1	1	1
First Republic		1	1	1	1	1	
city national		1	1	1		1	1
Bank of Oklahoma						1	
First Citizens		1	1		1	1	1
Associated Bank		1	1				
First Tennessee	1		1			1	1
Zions First National Bank		1	1			1	1
Everbank	1		1	1	1	1	
CIT Bank		1	1	1	1	1	1
Wells Fargo	1		1		1	1	1

D.1b. Curinos 2021 Results

Bank	Disclosure Clarity — good practice	Posting Order Practices — no high to low	Posting Order Practices — limited or no high to low	No Debit Card Overdraft	No Continuous Overdraft	Daily Item Caps	De Minimis Limits
Ally	0	0	0	1	0	0	0
Bank of the West	0	0	0		0	0	0
BBVA	0	0	0		0	0	0
BMO Harris	0	0	0		0	0	0
BoA	1	1	1	1	1	1	1
CapitalOne	1	1	1		0	1	1
Chase	1	1	1		1	1	1
Citizens	1	1	1		0	1	1
FifthThird Bank	1	0	1		1	1	1
Huntington	1	0	1		1	1	1
KeyBank	1	0	1		1	1	1
M&T Bank	1	0	1		0	1	1
PNC Bank	1	0	1		1	1	1
Regions Bank	1	1	1		0	1	1
Santander	0	0	0		0	0	0
Schwab	0	1	1		0	1	1
SunTrust	1	0	1		1	1	1
TCF	1	1	1		1	1	0
TD Bank	1	1	1		0	1	1
Union Bank	0	1	1		1	1	0
USAA	1	1	1	1	0	1	1
U.S. Bank	1	1	1		1	1	1
Webster Bank	1	1	1		1	1	1
Comerica	1	0	0		0	1	1
Commerce Bank	1	1	1		1	1	1
Frost	1	1	1		0	1	1
Citibank	1	1	1		0	1	1
HSBC	1	0	1		0	1	0
First Republic	1	0	1		1	0	1
City National	1	1	1		1	1	1
Bank of Oklahoma	1	1	1		1	1	0
First Citizens	1	1	1		1	1	1
Associated Bank	1	0	1		1	1	0
First Tennessee	0	1	1		0	1	1
Zions First National Bank	1	0	1		1	0	0
Everbank	0	1	1		1	1	1
CIT Bank	1	1	1		0	1	1
Wells Fargo	1	1	1		0	1	1

E. Cluster Detail

Based on the existing body of research, overdraft users are broadly placed into two buckets:

- Infrequent Users — 80% of users representing 32% of overdraft transactions. These users tend to be lower income.
- Frequent Users — 20% of users representing 68% of overdraft transactions. These users are fairly evenly distributed based on wealth.

Each of these groups has different motivations and needs relative to overdraft. And, as a result, a one-size-fits-all policy or approach may not work. To understand the drivers of frequent overdraft behavior, we performed a cluster analysis on our survey respondents. The Curinos survey oversampled frequent overdraft users and overdraft users, so while we can identify consistent sub-groups within frequent overdraft users, we cannot draw strict conclusions about the distribution of these types of consumers relative to the general population. However, the clustering exercise highlights patterns of demographics and attitudes that are highly predictive of frequent overdraft behavior.

To narrow our sample, we used a decision tree to isolate all frequent overdraft consumers and those consumers that looked like them. The decision tree was programmed to predict self-stated frequent overdraft behavior by respondents. Variables included in the data set were responses to a battery of questions exploring attitudes towards money and financial worries, along with self-reported credit quality[27], income and household liquid savings.

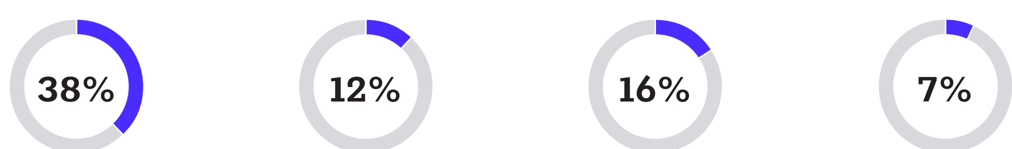
From the group of respondents that included all frequent overdraft users, four clusters emerged:

- Lifestyle Users — This group represents 38% of all frequent overdraft users. It is the highest concentration of frequent overdraft users whose members reported the most availability to credit, highest income and highest liquid savings. This group can always pay their bills and feel like they're doing better financially than peers. But they don't manage their day-to-day finances well, struggle with debt and dread dealing with their bank even though they think banks have their best interests at heart. They are more likely than any other group to have opted in to overdraft programs with the intention to use it as short-term credit. It is very important to this group that others think they are financially successful. These users seem to overdraft out of convenience and may fear getting their card declined in front of other people if they haven't maintained their checking account balance sufficiently.
- Limited-Option Users — This group represents 16% of frequent overdraft users. This group has low income, limited savings and little access to credit. Members

E1a. Four Clusters of Users Most to Least Likely to Be Frequent (>=10) Overdraft Users

Four clusters below include all Frequent Overdraft Users, as well as Infrequent Overdraft Users and Non-Users who share their attitudes and demographics

Most likely to be a frequent overdraft user — Least likely to be a frequent overdraft user



	Lifestyle Users	Overconfident Mangers	Limited-Options User	Risky Avoiders
% of group who are Frequent Overdraft Users	38%	12%	16%	7%
Financial Factors (credit score, income, savings)	High	Above Average	Low	Below Average
Defining Traits	Don't manage their day-to-day finances well and feel out of control	Confident in ability to manage their day-to-day finances	Pessimistic about financial future and feel lack of control	Worried about unexpected expenses and view overdraft as a safety net
	Very important that others think they are financially successful	Confident about financial future and present	Struggle with debt and paying bills	In control and confident about managing their money
	Use overdraft as short term credit	Important that others think they are financially successful	Opted in as a safety net in case they need to make important payments	What others think about their financial success is not important

are pessimistic about their financial future. They overwhelmingly opted in to debit overdraft coverage as a safety net in case they needed to make important payments. They struggle with debt and don't always have enough to pay their bills. These users may have no other liquidity options besides overdraft.

- Overconfident Managers — These represent 12% of the group. They have the second-highest income and savings (after Lifestyle Users) and say they do a good job managing their day-to-day finances. They are confident about their financial futures and present situations. They also have the second-highest reported availability of credit — though higher credit respondents in this group are more likely to be frequent overdraft users. They are overdrafting primarily due to convenience, but there could be many possible explanations despite their access to credit.
- Risky Avoiders — This group accounts for 7% of frequent overdraft users. By far the most populated segment, this group reports relatively high credit and adequate savings, but reports income similar the Limited-Option User. Though some are burdened by debt or worried about saving for retirement, most can always pay their bills and feel they have control over their financial future. It isn't important to this group if others think they are financially successful. This group tends to manage their money well enough to avoid overdrafting frequently, though some may become overwhelmed by their financial situation.

The remaining respondents either used overdraft infrequently or never in the past year. By looking at the four groups that have emerged, we can identify traits and attitudes that suggest a higher likelihood to overdraft infrequently:

- Infrequent Lifestyle Users — 48% of cluster overdrafts infrequently, 52% never overdrafts: Attitudes are very similar to the Lifestyle Users above, with high confidence about savings and retirement while struggling with debt and poor financial management. Incomes, savings and credit of this group are the second highest among the infrequent OD clusters, though incomes and savings are significantly lower than their counterparts in the frequent-overdraft Lifestyle Users cluster.
- Limited Overdraft: On Edge — 16% of cluster overdrafts infrequently, 84% never overdrafts: Similar to the Limited-Option Users in terms of attitudes, this group is comprised of mostly sub-prime and near-prime borrowers, suggesting access to fewer liquidity options. Incomes for this group are the lowest of any cluster, significantly lower than even the Limited-Option Users, though they are relatively less burdened by debt, more likely to always be able to pay their bills and feel more in control of their financial future. These users mostly opted in for a safety net too, though about a third had

E1b. Four Clusters of Users Most to Least Likely to Be Infrequent (<=10) Overdraft Users

Four clusters below include only Infrequent Overdraft Users and Non-users

Most likely to be an infrequent overdraft user ← → Most likely to be a non-user

	Infrequent Lifestyle Users	Limited Overdraft: On Edge	Limited Overdraft: With Breathing Room	Non-Overdrafters
% of group who are Frequent Overdraft Users	49%	16%	15%	8%
Financial Factors (credit score, income, savings)	Above Average	Low	Below Average	Above Average
Defining Traits	Don't manage their day-to-day finances well and feel out of control Very important that others think they are financially successful Confident about long term outlook	Pessimistic about financial future and feel lack of control View overdraft as safety net Struggle with paying bills, but less debt-burdened	Have enough to pay bills Feel relatively comfortable and confident about managing money Appearing successful is somewhat important	Not important if others think they are financially successful Confident about both day-to-day finances and financial future

no intention of using overdraft despite opting in.

- Limited Overdraft: With Breathing Room — 15% of cluster overdrafts infrequently, 85% never overdrafts: Though overdraft usage is comparable with the On Edge cluster, this group generally has better credit, higher income and more savings. Most of this group is always able to pay bills on time and are less pessimistic about their financial future. They report managing their money well, though it is somewhat important that others think they are financially successful. This group is more than three times bigger than the On Edge cluster.
- Non-Overdraft Users — 8% of cluster overdrafts infrequently, 92% never overdrafts: The most populous group among the infrequent overdraft clusters, Non-Overdraft Users resemble Overconfident Managers in their confidence about their financial management, financial situation and future, with similarly high income, credit and savings. A key difference is that it is much less important to them that others think they are financially successful. This group was more likely than any other to have opted in with no intention of using overdraft. Those in the group who opted out were more likely than any other cluster to say it was because they didn't want the bank to allow them to spend when they were out of money.

E.2. Averages for Frequent Overdraft Clusters:

	Cluster 1	Cluster 2	Cluster 3	Cluster 4
	Risky Avoiders	Limited-Options Users	Lifestyle Users	Overconfident Managers
% of Cluster that frequently overdrafts	7%	16%	38%	12%
Average Monthly Income (After Tax)	$3,070.78	$2,673.02	$7,173.90	$4,431.93
Average Liquid Savings	$21,244.19	$6,837.10	$86,040.22	$48,522.15
% self-stated, they could get any card they want (High Credit)	15%	3%	60%	35%
% stated they could not qualify for a credit card (Low Credit)	30%	71%	0%	20%
I always have enough to pay my bills	56%	27%	82%	88%
I don't have control over my financial future	38%	59%	71%	23%
I don't manage my day-to-day finances well	39%	50%	66%	26%
It is important to me that others think I am financially successful	38%	33%	77%	61%
Why did you choose to opt in?				
I wanted a safety net in case I needed to make an important purchase but lacked sufficient funds	50%	53%	38%	36%
I intended to regularly use the service as a source of short-term credit	10%	18%	35%	28%
I did it based on the banker's recommendation	9%	7%	20%	14%
I did not understand what I was agreeing to	1%	4%	1%	0%
I had no intention of using it and there is no cost unless I use it, so I thought "why not?"	30%	17%	7%	22%
Why did you choose to opt out?				
I did not think I would ever use the service	50%	36%	57%	38%
I did not understand what the service was or how it would be useful	6%	12%	23%	0%
I thought it might lead to additional fees	19%	33%	15%	24%
I did not want the bank to allow me to spend when I was out of money	25%	19%	5%	38%
Opt-in decision				
I opted in	57%	54%	89%	65%
I did not opt in	30%	37%	7%	16%
I do not remember	12%	8%	5%	19%

E.3. Averages for Infrequent Overdraft Clusters:

	Cluster 1	Cluster 2	Cluster 3	Cluster 4
	Limited OD: With Breathing Room	Non-Overdrafters	Infrequent Lifestyle Users	Limited OD: On Edge
% of Cluster that infrequently overdrafts	15%	8%	49%	16%
Average Monthly Income (After Tax)	$3,100.25	$5,197.84	$5,135.08	$1,880.49
Average Liquid Savings	$12,875.49	$68,966.63	$41,792.79	$4,715.25
% self-stated, they could get any card they want (High Credit)	16%	54%	45%	6%
% stated they could not qualify for a credit card (Low Credit)	32%	9%	5%	66%
I always have enough to pay my bills	60%	92%	79%	36%
I don't have control over my financial future	42%	10%	62%	52%
I don't manage my day-to-day finances well	41%	7%	63%	52%
It is important to me that others think I am financially successful	44%	39%	76%	27%
Why did you choose to opt in?				
I wanted a safety net in case I needed to make an important purchase but lacked sufficient funds	35%	33%	35%	50%
I intended to regularly use the service as a source of short-term credit	18%	10%	26%	9%
I did it based on the banker's recommendation	23%	14%	18%	8%
I did not understand what I was agreeing to	2%	1%	5%	0%
I had no intention of using it and there is no cost unless I use it, so I thought "why not?"	23%	42%	16%	33%
Why did you choose to opt out?				
I did not think I would ever use the service	39%	42%	5%	16%
I did not understand what the service was or how it would be useful	9%	6%	32%	1%
I thought it might lead to additional fees	16%	9%	33%	56%
I did not want the bank to allow me to spend when I was out of money	36%	42%	30%	28%
Opt-in decision				
I opted in	47%	65%	76%	59%
I did not opt in	30%	25%	17%	29%
I do not remember	23%	11%	7%	11%

II. Methodology

Consumer research

In 2015, Curinos conducted a consumer survey to understand why consumers use overdraft and choose to opt in to debit overdraft coverage. Today, overdraft is once again under the spotlight. Proposals for overdraft regulation are gaining attention from law makers and consumer advocates, while industry players have introduced a wave of new overdraft products and policies in addition to some other options for short-term liquidity. Given that proposals for additional overdraft regulation would restrict current consumer choice and access to a form of short-term liquidity, it is essential to develop a current fact base on not only what is post-regulation consumer overdraft usage, but more critically what is driving that consumer behavior. Curinos commissioned an online survey of 2,251 consumers in April 2021, focused on consumer overdraft behavior and the reasons and decision-making process behind this behavior. The online survey sought sufficient responses from eight identified segments of consumers, defined by their frequency of overdraft in the past year (none, 1-5, 6-10, more than 10) and by their self-stated credit quality (could or couldn't qualify for a credit card). The survey aimed to provide an update to our research from 2015, to understand what, if anything, has changed about consumer behavior and attitudes in the intervening years. As such, many of the questions asked in the 2015 research were asked verbatim in this research to ensure a consistent comparison between the time periods.

The research asked consumers about their overdraft usage and examined frequent overdraft users (more than 10 overdrafts in the past year), less frequent overdraft users (1-5 and 6-10 overdrafts), and non-overdraft users. Additionally, the survey sampled customers who couldn't qualify for a credit card in each category. The research provides data to help address a dozen key questions around overdraft volume trends, consumer choices and consumer knowledge.

This study was initiated at the request of the Consumer Bankers Association to better understand consumer sentiment and fill a gap in current research. CBA provided funding for the market research survey. Curinos independently designed, analyzed and documented research results.

This study intended to answer the following key questions:

1. Who overdrafts, how frequently, in what segment and why?
2. What options do frequent overdraft users have reasonable access to in the market?
    - How do consumers perceive their options?
    - How do consumers trade convenience for price?
3. What do consumers understand about overdraft opt in and what is their preference?
4. What responsibilities do consumers believe they have for managing their own account?
5. How do consumers think about the trade-off between overdraft cost and availability?
6. What is important to consumers when they shop for a checking account?
7. Product details from consumer research.

Option	Qualification	Availability	How it Works	Price
Credit Card	Good credit	Arranged in advance	Use credit card for purchases	\$2-3 per month per \$100 for credit (Moderate APR 17-36%)
Savings Overdraft Protection	Funds in a savings account	Arranged in advance	Automatically transfer funds to cover transactions	May incur daily transfer fee each day required between \$5 & \$10 (APR Not Applicable)
Deposit Advance	Recurring deposit into checking account	Immediately online through checking provider	User requests funds when needed	\$3-5 per \$100 per pay period (Assuming 10 days to payday, High APR 100%+)
Payday Lending	Paystub	Immediately at store	User requests funds when needed	\$17.50 per \$100 per pay period (assuming 10 days to payday, High APR 100%+)
Installment Loan	Proof of regular bill payment and income	Immediately Online	User requests funds online or at merchant	\$15 per \$100 for 1 year +\$10 Application Fee (Moderate APR 17-36%)
Overdraft	Deposits into your checking account	Advance opt in	Payment automatically covered	\$35 per transaction (assuming 10 days on \$50, High APR 100%+)
Savings Circles	Availability of 9 other participants	Arranged well in advance	Receive money every 10 months	\$0 per \$100, APR is 0
Friends & Family	Trust	Immediately, cash	User requests funds directly from family or friends	None

Weighting by Overdraft Frequency

The overall consumer percentages reflected in the study, unless otherwise noted, were weighted based on CFPB data. The CFPB provided data that split on overdraft fees by frequency of overdrafting, which we used to weight survey responses and normalize this question to total U.S. overdrafts. The CFPB found 73.7% of overdraft fees are paid by consumers with more than 10 overdrafts per year, 17.7% by those with 4-10 overdrafts, and 8.6% by those with 1-3. Differences in the split of the under 10 group — CFPB split 1-3 and 4-10, while the survey split 1-5 and 6-10 — didn't affect the results by more than 1%.[28] We used the observed frequencies in the CFPB data to weight our results, rather than the results from our survey of financial institutions, to ensure consistency between the consumer surveys in 2015 and 2021 (as bank data were not available for the 2015 survey).

Clustering

To better understand the factors underlying frequent overdraft behavior, Curinos conducted a clustering analysis of the consumer research survey respondents using decision trees. The decision trees were programmed to predict frequent overdraft behavior that was self-stated by respondents and defined as more than 10 overdraft transactions in the prior 12 months. Variables included in the data set were responses to a battery of questions exploring attitudes towards money and financial worries, along with self-reported credit quality, income and household liquid savings. The decision tree would help distinguish variables that were most helpful in predicting frequent overdraft behavior.

The first decision tree predicted the "frequent overdraft" outcome, defined by consumer who self-reported overdrafting more than 10 times in the past 12 months. This decision tree is used to create two sub populations:

- A sub population that has no users with 10+ transactions
- A sub population that has all the 10+ users and a mix of every other level as well

We then used clustering algorithms to identify groups of consumers that looked alike in terms of our independent variables within each sub population. Within each sub population, there were four look-alike clusters that each describes a different psychological, behavioral and demographic group of consumers. Our survey oversampled both frequent overdraft users and consumers with low credit quality, so the size of these clusters relative to the full population cannot be accurately estimated (as there is no credible, granular source for overdraft usage rates broken down by consumer credit quality). We then used a latent class clustering algorithm to identify groups of consumers that looked alike in terms of our independent variables within each sub-population. Within each sub-population, there were four look-alike clusters that each describes a different psychological, behavioral and demographic group of consumers.

Latent class clustering uses a multinomial mixture model to assign customers to a likely cluster based upon a set of categorized features. A latent variable is an unobservable grouping variable. Each level of the latent variable is called a latent class. For our case, latent classes are clusters of respondents grouped by responses to the financial attitude battery and self-reported behaviors. The clusters represent patterns of overlap based on conditional probabilities across the features used for clustering.

Bank Disclosures

Beginning in April 2021, Curinos analyzed the fee disclosure forms and deposit account agreements of all banks analyzed by The Pew Charitable Trusts in the 2014 study "Checks and Balances Report." The purpose of this was to compare overdraft practices and policies in 2021 with those observed by Pew in 2014. In 2014, Pew reviewed the overdraft fees and policies for financial institutions holding roughly 65% of U.S. domestic deposits, including 44 of the 50 largest U.S. retail banks that provided account and policy information to Pew. Curinos reviewed the policies of all banks analyzed by Pew for the free or most basic checking account option, with a few exceptions for logistical purposes, resulting in 38 banks analyzed:

- BB&T and Suntrust have since merged to become Truist Financial. The policies of BB&T and Suntrust were identical in the categories considered at the time of writing and were counted as a single institution for data analysis.
- First Niagara was acquired by KeyBank. KeyBank was analyzed by Pew in 2014 and was analyzed and counted once for the purpose of our 2021 study.
- FirstMerit was acquired by Huntington. Huntington was analyzed by Pew in 2014 and was analyzed and counted once for the purpose of our 2021 study.
- Fee information wasn't available online for New York Community Bank, Signature Bank and Susquehana Bank. These institutions weren't included in the data comparison between 2014 and 2021 for this reason.

Other notable changes include:

- OneWest was acquired by CIT Bank. CIT was analyzed as part of the study in place of OneWest as CIT bank wasn't part of the 2014 Pew study.
- First Tennessee Bank became First Horizon; First Horizon was analyzed.
- Everbank was acquired by TIAA, which wasn't analyzed in the 2014 study. TIAA was analyzed in place of Everbank.

III. Citations & Sourcing

1 CFPB “CFPB Study of Overdraft Programs: A White Paper of Initial Data Findings” (June 2013), page 14.

2 Truth in Savings, Regulation DD (Final Rule), 74 Federal Register 5584 (29 January 2009).

3 Electronic Fund Transfers, Regulation E (Final rule), 74 Fed. Reg. 59033 (Nov. 17, 2009).

4 Klein, A. A few small banks have become overdraft giants. Brookings. https://www.brookings.edu/opinions/a-few-small-banks-have-become-overdraft-giants/?source=email. (2021, March 1).

5 The Pew Charitable Trusts, “Checks and Balances: 2014 Update” (April 2014)

6 Curinos analysis of consumer overdraft-related services charges on deposit accounts, from regulatory filings of all FDIC depository institutions via SNL Financial, Q1 2015-Q4 2020. Note on overdraft methodology: Since 2015, the FDIC call report has included a line item called “Service Charges on U.S. Deposit Accounts — Overdraft” (Schedule RI, Item 15.a) for all banks with more than $1B in total assets. We use this total in the years it is available, as it is precisely reported overdraft fees charged by banks representing 99.9% of demand deposits. Moebs $ervices, a research and consulting firm, has published estimates of total overdraft fees charged in the same period that are much higher than what is reported by the FDIC. Moebs estimated total overdraft fees in 2017 to be $34B, while the total from FDIC call reports was $14.5B. Moebs methodology is not clear, but based on methodology that is detailed, the firm likely surveys banks around the U.S. and uses bottom-up assumptions to arrive at a total for overdraft fees that we feel is too high. Other researchers have come to the same conclusion. The Financial Health Network, a consumer advocacy group, recently published its 2021 FinHealth Spend Report. In previous years, they had used the Moebs estimates for total overdraft fees. In their 2021 methodology section, they describe why they elected to use the FDIC Call Report data, rather than Moebs to estimate total overdraft fees in 2021: “Overdraft: Additionally, in prior years we used reporting from Moebs Services as a baseline estimate of revenue. This year, we utilize Call Report data on FDIC-insured banks compiled by the Federal Financial Institutions Examination Council. This data is then scaled up to represent the whole market, including smaller banks and credit unions that are not required to report overdraft fee revenues through the Call Reports. We chose this change in methodology because we believe that the Call Report approach better reflects the true size of the overdraft market.”

7 SNL Financial (2008-2020), Curinos analysis, U.S. Census Bureau, 2019 U.S. Federal Reserve Payments Study | Overdraft Fees 2015-2020 sourced from call reports of commercial banks, savings banks, and savings & loans: Service Charges on U.S. Deposit Accounts — Overdraft | *Overdraft Fees 2008-2014 estimated with SCDA data from SNL, Curinos Analysis | OD/Population normalized by debit transaction volume from Federal Reserve Payments Study

8 Curinos 2021 Bank Behavioral Study

9 Financial Health Network, “The FinHealth Spend Report 2021” (April 2021), page 22.

10 Simms, M. C. (2009). (rep.). Racial and Ethnic Disparities among Low-Income Families (p. 1). The Urban Institute.

11 What was your primary reason for opting in? | Curinos 2021 Overdraft Study N = 690 recall opting in | Curinos 2021 Overdraft Study N = 1,027 recall opting in |Weighted Average on OD items (of Opt-In Respondents) from CFPB data point

12 CFPB, “Data Point: Frequent Overdraft users” (August 2017), page 5

13 Financial Health Network, “The FinHealth Spend Report 2021” (April 2021), page 22.

CFPB, “Data Point: Checking Account Overdraft” (July 2014)

14 Financial Health Network, “The FinHealth Spend Report 2021” (April 2021), page 22.

15 Bank On, “MORE THAN 100 BANK ON NATIONALLY CERTIFIED ACCOUNTS, AT INSTITUTIONS COMPRISING 52% OF NATIONAL DEPOSIT MARKET SHARE, CAN HELP RESIDENTS RECEIVE CHILD TAX CREDIT AND OTHER EMERGENCY PAYMENTS” https://2wvkof1mfraz2etgea1p8kiy-wpengine.netdna-ssl.com/wp-content/uploads/2021/07/CFE-Fund_-2021-Bank-On-100-Accts-Press-Release.pdf Accessed September 2021

16 Bank On, “Bank On National Account Standards (2019-2020)” http://joinbankon.org/wp-content/uploads/2018/12/BankOn_Standards_2019-2020.pdf. Accessed June 2021.

17 CFPB, “Data Point: Checking Account Overdraft” (July 2014), page 5

18 Curinos Customer Knowledge | U.S. Shopper Surveys 2017-2020

19 The Pew Charitable Trusts, “Overdrawn: Persistent Confusion and Concern about Bank Overdraft Practices” (June 2014), page 11.

20 California Reinvestment Coalition et al., “How Banks Sell Overdraft” (June, 2014), page 5-6;

21 The Pew Charitable Trusts, “Overdrawn: Persistent Confusion and Concern about Bank Overdraft Practices” (June 2014), page 5.

22 The Pew Charitable Trusts, “Overdrawn: Persistent Confusion and Concern about Bank Overdraft Practices” (June 2014), pages 10, 12.

23 ICBA, “The ICBA Overdraft Payment Services Study” (June 2012), page 18.

24 Center for Responsible Lending, “High-Cost Overdraft Practices” (July 2013), page 6-7.

25 Some banks began to offer deposit advance products, which allowed consumers to advance funds from a credit line based only on regular deposit behavior as opposed to credit qualification. However, the OCC and FDIC issued regulatory guidance that included credit assessments, which has made the product unprofitable for small dollar loans.

26 ICBA, “The ICBA Overdraft Payment Services Study” (June 2012), page 20.

27 Self Reported credit quality has been found to be directionally accurate in other studies conducted by Curinos

28 CFPB, “Data Point: Checking Account Overdraft” (July 2014), page 12. The CFPB found: 73.7% of overdraft fees are paid by consumers with more than ten overdrafts per year, 17.7% by those with four to ten overdrafts, and 8.6% by those with one to three. Differences in the split of the under ten group — CFPB split 1-3 and 4-10, while the survey split 1-5 and 6-10 — did not affect the results by more than 1%.

Authors and About Curinos

Hank Israel
Director, Innovation and New Markets

Hank has spent his 30-year career in financial services across payments, deposits and unsecured lending. He has worked with more than 50 institutions worldwide to develop consumer and small business product strategies and supporting solutions. Hank has worked with clients to address regulatory, market and operational opportunities through related to overdraft and unsecured lending product and service design — from marketing and acquisition to retention and collections. As a product strategist, Hank has been recognized by Harvard Business Review for his contribution to Huntington's 24 Hour Grace program. Hank's work with financial institutions ties market research and empirical behavioral analysis to creative product and solution design. Hank graduated from Haverford College with a BA in Philosophy and has pursued post-graduate work in business and law at Georgia State University. He has held positions at the Federal Reserve Bank of Atlanta, Global Concepts (Now McKinsey) and FiServ. He is currently a director at Curinos (formerly Novantas), where he has worked for 13 years.

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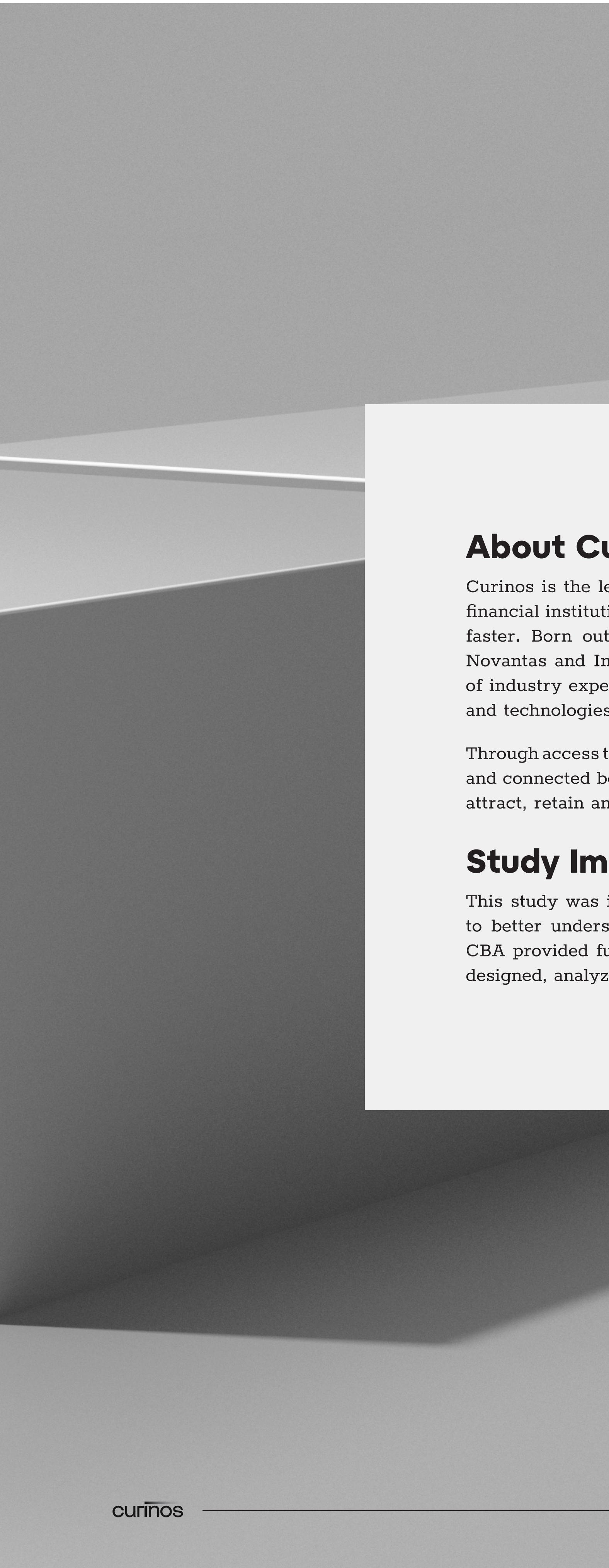
Don has spent his 35-plus year career in statistics and data science between academia and financial services. As Chief Data Scientist leading Curinos' Data Science Center of Statistical Excellence, Don oversees and refines the organization's approach to market research and behavioral analysis and modeling. In additional to overseeing and providing quality control on client segmentation and market research insight projects, Don's statistical modeling in credit risk and regulatory capital have gained approval from North American Model Risk Governance groups, as well as regulators. Don has provided statistical support to the development and execution of credit risk and market research for more than 75 financial institutions across EMEA, North America, and Asia-Pacific. Don received his PhD from the University of Minnesota, has taught at SUNY Buffalo and held senior statistical management positions at Citibank in card products and Time Warner product circulation and distribution. Don has been at Curinos (formerly Novantas, formerly PMA consulting) for more than 25 years.



About Curinos

Curinos is the leading provider of data, technologies and insights that enable financial institutions to make better, and more profitable, data-driven decisions faster. Born out of the combination of two familiar industry powerhouses, Novantas and Informa’s FBX business, Curinos brings to market a new level of industry expertise across deposits, lending and digital experience solutions and technologies.

Through access to comprehensive datasets and analytics, intelligent technologies and connected behavioral insights, Curinos is the partner of choice to help you attract, retain and grow more profitable customer relationships.

Study Impetus

This study was initiated at the request of the Consumer Bankers Association, to better understand consumer sentiment and fill a gap in current research. CBA provided funding for the market research survey. Curinos independently designed, analyzed and documented research results.

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