

The Consumer Credit Card Market



Message from Kathleen L. Kraninger

Director of the Bureau of Consumer Financial Protection

Credit cards are one of the most commonly-held and widely-used financial products in America. At last count, nearly 170 million Americans hold credit cards, many of them carrying more than one. Some consumers use these strictly as payment devices, paying their balances in full each month, while others use them as a source of credit and carry a balance from month to month.

The Credit Card Accountability Responsibility and Disclosure Act (CARD Act) requires the Bureau to prepare a biennial report to Congress regarding the consumer credit card market. This is the Bureau's fourth report, and details findings regarding, among other things, the cost and availability of credit and innovations in the credit card marketplace. The report also emphasizes that with the passage of time, it is becoming increasingly difficult to correlate the CARD Act with specific effects in the marketplace that have occurred since the issuance of the Bureau's last biennial report, and, even more so, to demonstrate a causal relationship between the CARD Act and those effects. Accordingly, while the Bureau will continue to report on the CARD Act's effects where appropriate and feasible, the Bureau anticipates future reports will focus more on overall conditions in the credit card market.

Evidence-based research like this is one way in which the Bureau discharges its statutory duty to monitor for risks to consumers in the offering or provision of consumer financial products and services. It is my hope that the publication of this report with the latest data on this important market will be useful to consumers, providers of credit card products, and policymakers.

Sincerely,



Kathleen L. Kraninger

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Executive summary

Credit cards are central to the financial lives of nearly 170 million American consumers. Over the last few years, the credit card market, the largest U.S. consumer lending market measured by number of users, has continued to grow in almost all dimensions and measures. Market conditions remain stable, in large part because of low unemployment, modest wage growth, and high consumer confidence in the past two years. Credit cardholders continue to use their cards to facilitate transactions, smooth consumption, and earn rewards, all with the added security of stringent limitations on liability. Consumer satisfaction with credit cards remains high,¹ while consumers' debt service burden remains near its lowest level recorded in more than a decade.

Late payment and default rates have risen modestly over this period but remain below pre-recession levels. In general, credit card issuers continue to generate profitable returns consistent with historical levels. Innovation has continued to reshape the market, for both users and providers. New providers, including large and small financial institutions as well as startup and mainstream technology companies have entered—or are in the process of entering—the market with competing products, features, and new ways of issuing credit cards.²

The Credit Card Accountability Responsibility and Disclosure Act (CARD Act or Act)³ was enacted ten years ago. Since its passage, researchers, including the CFPB, have studied the

¹ J.D. Power reported that in 2018 consumer satisfaction with credit cards remained near its record high. See Press Release, J.D. Power, *Credit Card Rewards Battle Continues as Customers Seek Better Programs, J.D. Power Finds* (Aug. 16, 2018), available at <https://www.jdpower.com/business/press-releases/2018-credit-card-satisfaction-study>.

² Reference in this report to any specific commercial product, service, firm, or corporation name is for the information and convenience of the public, and does not constitute endorsement or recommendation by the Bureau.

³ Pub. L. No. 111-24, 123 Stat. 1734 (2009).

effects of the CARD Act on the cost and availability of credit to consumers. This report discusses that research. However, the Bureau also emphasizes that with the passage of time, it is becoming increasingly difficult to correlate the CARD Act with specific effects in the marketplace that have occurred since the issuance of the Bureau's most recent biennial report, and, even more so, to demonstrate a causal relationship between the CARD Act and those effects. Accordingly, while the Bureau will continue to report on the CARD Act's effects where appropriate and feasible, the Bureau anticipates that future reports will focus more on overall conditions in the credit card market.

This executive summary provides some background for the report, then summarizes key findings.

BACKGROUND

In 2009, Congress passed the CARD Act.⁴ The Act made substantial changes to the credit card market. The CARD Act mandated new disclosures and underwriting standards, curbed certain fees, and restricted interest rate increases on existing balances. Among the CARD Act's many provisions was a requirement that the Board of Governors of the Federal Reserve System (Board) report every two years on the state of the consumer credit card market. With the passage of the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) in 2010, that requirement passed to the Bureau of Consumer Financial Protection (Bureau) alongside broader responsibility for administering most of the CARD Act's provisions. This is the fourth report published pursuant to that obligation, building on prior reports published by the Bureau in 2013, 2015, and 2017.⁵

⁴ The Act superseded a number of earlier regulations that had been finalized, but had not yet become effective, by the Office of Thrift Supervision (OTS), the National Credit Union Administration (NCUA), and the Board of Governors of the Federal Reserve System. Those earlier rules were announced in December of 2008 and published in the Federal Register the following month. See 74 Fed. Reg. 5244 (Jan. 29, 2009); 74 Fed. Reg. 5498 (Jan. 29, 2009). The rules were withdrawn in light of the CARD Act. See 75 Fed. Reg. 7657, 75 Fed. Reg. 7925 (Feb. 22, 2010).

⁵ See Bureau of Consumer Fin. Prot., *Card Act Report*, (Oct. 1, 2013) (2013 Report), http://files.consumerfinance.gov/f/201309_cfpb_card-act-report.pdf; Bureau of Consumer Fin. Prot., *The Consumer Credit Card Market*, (Dec. 2015)(2015 Report),

The Bureau’s 2013 Report focused on trends in the credit card marketplace before and after the CARD Act. Because the implementation of the Act coincided with a period of economic recovery, the effects of the CARD Act were difficult to discern. The Bureau found that the CARD Act “significantly enhanced transparency for consumers” and largely eliminated “[o]verlimit fees and repricing actions.”⁶ The report found that from early 2009 and continuing through February 2010 when many provisions of the Act took effect, the interest rate on credit card accounts increased. But because back-end fees also decreased across this period the total cost of credit “declined by 194 basis points from Q4 2008 to Q4 2012.”⁷ The report was not able to conclude how much of that change was attributable to the CARD Act. The report also noted declines in credit availability beginning in 2008, prior to the enactment of the CARD Act, but after the onset of the Great Recession. Certain metrics, such as total credit line, continued to decrease after the implementation of CARD Act provisions, with their effect disproportionately concentrated in subprime tiers.⁸ With some exceptions, the report was not able to conclude the extent to which such change resulted from the Act. However, the report did find evidence that suggests the CARD Act had a discernible impact on credit availability in three respects—a substantial decrease in the number of credit card accounts originated among students and other consumers under the age of 21, a small but discernible percentage of applicants deemed otherwise creditworthy were declined as a result of insufficient income to satisfy the CARD Act’s

http://files.consumerfinance.gov/f/201512_cfpb_report-the-consumer-credit-card-market.pdf; Bureau of Consumer Fin. Prot., *The Consumer Credit Card Market*, (Dec. 2017) (2017 Report), https://files.consumerfinance.gov/f/documents/cfpb_consumer-credit-card-market-report_2017.pdf. The Bureau also held a conference in 2011 in which numerous market stakeholders contributed information and perspective on developments in the credit card market. See Press Release, Bureau of Consumer Fin. Prot., *CFPB Launches Public Inquiry on the Impact of the Card Act* (Dec. 19, 2012), available at <https://www.consumerfinance.gov/about-us/newsroom/consumer-financial-protection-bureau-launches-public-inquiry-on-the-impact-of-the-card-act>.

⁶ See 2013 Report, *supra* note 5, at 5.

⁷ The report defined total cost of credit as the annualized sum of all amounts paid by consumers (including both interest charges and fees) divided by the average of outstanding balances. See *id.*

⁸ According to the Bureau’s data, total credit line was \$200 billion lower at the end of 2012 than when many provisions of the CARD Act took effect in February 2010. See *id.* at 6.

ability-to-pay requirement, and a marked decline in the percentage of consumers receiving unsolicited credit line increases.⁹

The Bureau’s 2015 Report had a broader scope. It continued to assess post-CARD Act trends, generally corroborating the prior report and finding that most of the market trends identified in that 2013 Report had persisted over the next two years. The 2015 Report also laid out a broader set of market indicators, establishing potential baselines against which to measure the evolution of the market in future reports. In addition, the report included several in-depth analyses of certain issuer practices in the market—deferred interest promotions, rewards cards, and debt collection.

The Bureau’s 2017 Report provided similar coverage of post-CARD Act trends. It found the cost of card credit remained “largely stable,” and that by most measures credit card availability “remained stable or...increased” since the 2015 Report.¹⁰ It repeated the debt collection analysis and added two new subjects: credit card products marketed to and used by consumers who lack prime credit scores; and issuer and consumer use of rapidly emerging “third-party comparison” websites.

THE 2019 REPORT

This report continues the approach of the Bureau’s previous reports. The Bureau revisits most of the same baseline indicators as prior reports to track key market developments and trends. It also revisits some of the 2015 in-depth topics to assess how the market has changed. For example, the current report updates the debt collection analysis first conducted in the 2015 Report. In addition, this report reviews significant findings from economics scholarship focused on the CARD Act.

Below is a summary of the core findings from each section of the report:

- Total outstanding credit card balances have continued to grow and at year-end 2018 were nominally above pre-recession levels. Throughout the post-recession period, including the

⁹ See *id.*

¹⁰ See 2017 Report, *supra* note 5, at 7-8.

period since the Bureau's 2017 Report, purchase volume has grown faster than outstanding balances. After falling to historical lows in the years following the recession, delinquency and charge-off rates have increased over the last two years. Late payment rates have increased for new originations of general purpose and private label cards, both overall and within different credit tiers.

- The total cost of credit (TCC) on revolving accounts has increased over the last two years and in 2018 stood at 18.7 percent, which is the highest overall level observed in the Bureau's biennial reports. Recent TCC increases are largely the result of increases in the indices underlying variable rates, such as the prime rate. General purpose cards, which generally have interest rates linked to the prime rate, have driven the increase across every credit tier. TCC has fallen over the last two years for private label cards, in part because relatively fewer of these cards have rates linked directly to index rates, offset by a decline in fees as a share of balances.
- Most measures of credit card availability—overall and across credit score tiers—have remained stable or decreased slightly since the Bureau's 2017 Report. Measured by application volume, consumer demand for credit cards peaked in 2016. Approval rates have also declined slightly since 2016. Driven by lower approval rates, annual growth in the number of credit card accounts opened and the amount of credit line on new accounts has also leveled off. Even so, total credit line across all consumer credit cards reached \$4.3 trillion in 2018, nearly equal to its pre-recession high, largely due to the growth in unused line on accounts held by consumers with superprime scores.
- Cardholders have increased their use of rewards cards, thereby driving up the cost to industry to fund these products. The level and consumer cost of balance transfer and cash advance use remains largely unchanged.
- In the ten years since the CARD Act was passed, social scientists have examined the Act's effects on consumers and the credit card market as a whole. Using a range of theoretical and empirical approaches, scholarship has looked at a range of potential direct and indirect effects of the CARD Act, including pricing, credit availability, consumer repayment behavior, and cardholding.
- Since the 2017 Report, issuers have lowered the range of their daily limits on debt collection phone calls for delinquent credit card accounts. In addition, over that same period, the

volume of balances settled through for-profit debt settlement companies (DSCs) grew at a faster rate than issuers' overall accounts receivable did.

- New technologies further enhance consumers' interactions with and control over their credit cards—from originating one card rather than another, to ways of transacting and paying. Cardholders increasingly use and service their cards through digital portals, including those accessed via mobile devices. New technologies such as artificial intelligence and machine learning, as well as new data sources, are changing how providers are able to manage risk and provide customer service.

USE OF CREDIT

The credit card market is one of the United States' largest consumer financial markets and continues to grow by most measures. By the end of 2018, total credit card balances were around \$900 billion, well above their pre-recession peak of \$792 billion. Over the last few years, the total amount of *spending* using credit cards has grown much faster than the total volume of balances *carried* on cards. At \$4.3 trillion, the aggregate of credit card lines extended (total line) is near its pre-recession high, while cardholding incidence remains further from its historic high.

Cardholders with prime or superprime credit scores continue to account for most credit card debt and spending. However, in the last few years, the share of total credit card debt held by consumers with relatively lower credit scores has been increasing. Cardholders with lower scores have also increased the average number of credit cards they hold. In addition, average credit card debt has risen faster for these cardholders over the last few years than it has for cardholders with higher scores, although all credit tiers have seen some growth in average outstanding balances. Aggregate credit card indebtedness for consumers with lower scores, however, remains below 2008 peaks.

For all credit score tiers, the share of cardholders revolving a balance continues to be higher for general purpose cards than private label ones. Private label revolving rates continue to show more variation across credit tiers. Payment rates on general purpose payment cards have continued their steady growth since the recession, whereas private label payment rates have declined in recent years.

Rates of credit card delinquency and charge-off have declined sharply since their peak during the recession, and remain lower than they were prior to the recession. Both indicators have

increased slightly in recent years. Newer originations, both overall and within each different credit tier, are showing greater incidence of late payment than older originations did after the same period. Recent private label vintages in particular show one-year cumulative delinquency rates in excess of historical norms, both overall and within different credit tiers.

COST OF CREDIT

The total cost of credit on revolving accounts has increased over the last few years, driven largely by increases in interest charges. In 2018, the average annual percentage rate (APR) for general purpose and private label cards rose to 20.3 and 26.4 percent respectively. This is in large part the result of changes in prevailing market rates.

Annual fee volume has risen significantly over the last few years, leading to an increase in annual fees as a share of total fees. Fee composition otherwise shows relatively little change. Annual fees averaged roughly \$80 per card in 2018. That amount has been increasing steadily for all credit score tiers reflecting, in particular, the increased prevalence in the past two years of richer rewards credit cards with higher annual fees. The prevalence for cardholders with below-prime scores, however, has been declining since 2015.

AVAILABILITY OF CREDIT

Consumers' demand for credit as measured by application volume reached its peak in 2016 and declined somewhat in 2017 and 2018 in both general purpose and retail cards. Approval rates have also declined slightly since 2016. As a result, new credit card openings are lower than the post-recession high reached in 2016, both overall and for every credit tier. Total credit line on new accounts, both overall and within every credit tier, is down from its 2016 high point. Total credit line across all consumer credit cards reached \$4.3 trillion in 2018, nearly equal to its pre-recession high. Despite this picture of increasing credit availability, most of the growth in available credit is accounted for by unused line on accounts held by consumers with superprime scores.

Consumers are increasingly obtaining credit cards through digital channels. Direct mail volume continues to fall. More consumers are finding their way to application pages via digital advertisements or third-party credit card comparison sites. More consumers are also applying for credit on their mobile devices. In 2018, applications submitted via mobile devices surpassed those submitted using desktop personal computers as the leading digital channel. The growth in the mobile channel has been significant in the past two years for both general purpose and retail

cards. Mobile application use is also disproportionately heavy for consumers with lower credit scores, even as approval rates for these channels and consumers have held relatively steady.

PRACTICES OF CREDIT CARD ISSUERS

Credit cards offering points, miles, cash back, or other rewards remain popular, with the share of credit card spending accounted for by rewards cards continuing to increase over the last few years. That is true both overall and for each of the main credit tiers with growth particularly notable for consumers with lower credit scores. While rewards cards continue to account for a larger share of total credit card spending, the share of originations that are rewards cards declined in all credit score tiers except superprime. Meanwhile, the cost of offering rewards has risen over the past several years as issuers continue to compete using richer rewards offers—and as cardholders take greater advantage of the rewards that are offered. Since the first quarter of 2015, data available to the Bureau show a roughly 84 percent increase in overall rewards expense incurred by issuers to support rewards programs.

Balance transfers remain popular among consumers. Annual balance transfer volume rose roughly 38 percent from 2015 through the end of 2018, outpacing growth in balances and purchase volume. Meanwhile, the cost of balance transfers to consumers has been declining in recent years. Cash advance usage growth has significantly lagged behind growth in balances and purchase volume, with declines most notably in the below-prime market segment. The cost to consumers of cash advances has remained stable since the Bureau's 2017 Report.

SCHOLARSHIP ON CARD ACT EFFECTS

This report also reviews recent academic research in the social sciences that has examined the CARD Act's effects. In many cases, these academic analyses corroborate the Bureau's findings from prior years' card market reports including, for example, findings that the Act led to reductions in consumers' total payments toward certain fees such as late fees and over-limit fees. However, across the methodologies and analyses reviewed in this section, a consistent theme is the challenge of disentangling the *effects* of the CARD Act itself, rather than the effects of other market changes such as the Great Recession.

Overall, the scholarship reviewed in this section suggests that the CARD Act's effect on consumer welfare is mixed. The reviewed analyses examine, both theoretically and empirically, how the CARD Act may have had unintended consequences (but not necessarily unanticipated ones) in parts of the market not explicitly regulated by the Act: for example, whether interest

rates at account opening may have risen in response to the CARD Act's restrictions on later repricing of interest rates on future outstanding balances. Academic research indicates that the direct and indirect consequences from the CARD Act may vary by consumer credit score, age, and other characteristics. The scholarship also highlights how these effects may depend on various features of the credit card market, such as market competitiveness and to what extent there is asymmetric information between different market participants.

DEBT COLLECTION

Issuers have lowered their daily limits on debt collection phone calls for delinquent credit card accounts since the Bureau's last report. Average daily attempts remained well below these stated limits, which is consistent with findings from the 2017 Report. Most issuers now supplement their internal collections communication strategy with email and text messages, but these channels are used primarily for account servicing and not for delivering required collections notices. Issuers' third-party collection networks typically do not use email and text.

The volume of balances settled through for-profit DSCs grew faster than did issuers' overall accounts receivable. Most issuers will not work with DSCs without receiving a signed or verbal authorization from the consumer. When engaging with DSCs, issuers generally apply the same settlement policies available to consumers who call the creditor directly to request settlements.

INNOVATION

Digital technology is being leveraged to offer consumers more tools to control how they shop for credit cards, how they qualify for different products, how they transact with physical cards or mobile phones, and how they pay for the associated debts. Some of these tools implicate a broad array of regulatory provisions that card issuers working in this space must navigate carefully. Technological advancements like machine learning and artificial intelligence incorporating new data sources are increasingly enabling the responsible expansion of credit availability to populations that lack a traditional credit score while also lowering the cost of credit to those with poor credit history. However, these same advancements may also bring new risks, such as unintended side effects and greater potential for discrimination, which companies must monitor closely.

1. Introduction

1.1 Review mandate

The Dodd-Frank Act which became law on July 21, 2010, established the Bureau. One year later, pursuant to that Act, authority and responsibility for implementing and enforcing the CARD Act were transferred from the Board to the Bureau. The CARD Act became law on May 22, 2009. Its stated purpose was to “establish fair and transparent practices related to the extension of credit” in the credit card marketplace.¹¹

Among those responsibilities Congress originally assigned the Board was a mandate to “review, within the limits of its existing resources available for reporting purposes, [the] consumer credit card market [every two years].”¹² In 2012, the Board and the Bureau agreed that responsibility

¹¹ *Supra* note 3, at 1. A full summary of the CARD Act rules implemented by the Board is at pages 11 through 13 of the Bureau’s 2013 Report. *See* 2013 Report, *supra* note 5. The Bureau subsequently reissued these rules without material changes in December 2011. The Bureau later revised one CARD Act rule issued by the Board. On November 7, 2012, the Bureau proposed selected revisions to the ability-to-pay rules, which were intended to address a number of unintended impacts of the prior rule on consumers who did not work outside the home. The final rule implementing this revision became effective on May 3, 2013, with an associated compliance deadline of November 4, 2013. *See* 78 Fed. Reg. 25818 (May 3, 2013). On March 22, 2013, the Bureau finalized another revision to the CARD Act rules in response to a federal court ruling in 2012 that had granted a preliminary injunction to block a part of the Board’s 2011 rule from taking effect. The final rule became effective March 28, 2013. *See* 78 Fed. Reg. 18795 (Mar. 28, 2013). *See also* Press Release, Bureau of Consumer Fin. Prot., *CFPB Finalizes Credit CARD Act Rule* (Mar. 22, 2013), <https://www.consumerfinance.gov/about-us/newsroom/consumer-financial-protection-bureau-finalizes-credit-card-act-rule>.

¹² 15 U.S.C. § 1616(a) (2012).

for the review passed to the Bureau under the terms of the Dodd-Frank Act. This report represents the Bureau’s fourth mandated review of the consumer credit card market, following the Bureau’s reports on the market in 2013, 2015, and 2017.¹³

1.2 Report scope

This report fulfills Congress’ directive to review the consumer credit card market in two overlapping ways.

First, it responds to the general congressional mandate in section 502 of the CARD Act to review and report on the “consumer credit card market.” Second, it addresses “within the limits of [the Bureau’s] existing resources available for reporting purposes” topics explicitly enumerated by Congress for inclusion in this review, including:

1. the terms of credit card agreements and the practices of credit card issuers;
2. the effectiveness of disclosure of terms, fees, and other expenses of credit card plans;
3. the adequacy of protections against unfair or deceptive acts or practices relating to credit card plans; and
4. whether or not, and to what extent, the implementation of this Act and the amendments made by this Act have affected:
 - a. the cost and availability of credit, particularly with respect to non-prime borrowers;
 - b. the safety and soundness of credit card issuers;
 - c. the use of risk-based pricing; or

¹³ See generally, *supra* note 5.

d. credit card product innovation.¹⁴

The CARD Act also requires the Bureau to “solicit comment from consumers, credit card issuers, and other interested parties” in connection with its review.¹⁵ As in past years, the Bureau has done so through a Request for Information (RFI) published in the Federal Register, and the Bureau discusses specific evidence or arguments provided by commenters throughout the report.¹⁶

1.3 Methodology

This section reviews several aspects of the Bureau’s general methodology in compiling this report. Methodological approaches used in specific sections of this report are explained in more detail in those sections.

1.3.1 Data sources

This report leverages several data sources. It emphasizes sources already held by the Bureau, by other Federal regulators, and by industry stakeholders. All results reported from data throughout this report aggregate results from multiple industry participants.¹⁷

¹⁴ 15 U.S.C. § 1616(a) (2012). While this report presents information which may be relevant to assessments of safety and soundness issues relating to credit card issuers, the Bureau does not produce any further analysis on this subject in this report. The prudential regulators (*e.g.*, the Office of the Comptroller of the Currency, the Board of Governors of the Federal Reserve System, the Federal Deposit Insurance Corporation, and the National Credit Union Administration) have the primary responsibility for monitoring the safety and soundness of financial institutions.

¹⁵ 15 U.S.C. § 1616(b) (2012).

¹⁶ Request for Information Regarding Consumer Credit Card Market, 84 Fed. Reg. 647 (Jan. 31, 2019).

¹⁷ No results in this report can be used to identify the outcomes or practices of individual entities. At the same time, outcomes and patterns observed in the market as a whole may not be true for (or may only apply in a limited degree to) any particular industry player.

Sources include the following:

1. Data from the Bureau’s Consumer Credit Panel (CCP), which is a 1-in-48 longitudinal sample of de-identified credit records purchased from one of the three nationwide credit reporting agencies, which is representative of U.S. consumers with credit records. These data also inform other Bureau products, such as the Consumer Credit Trends reports.¹⁸ These data contain no personal identifiers, such as name, address, or Social Security number.
2. De-identified information that the Board collects as part of its “Y-14M” (Y-14) data collection. The Board collects these data monthly from bank holding companies that have total consolidated assets exceeding \$50 billion.¹⁹ The Board shares with the Bureau data from Y-14 banks. The data received by the Bureau cover the period from the middle of 2012 through the present, and accounted for just under 70 percent of outstanding balances on consumer credit cards as of year-end 2018.²⁰

Information in the Y-14 data do not include any personal identifiers. Additionally, accounts associated with the same consumer are not linked across issuers. The Y-14 does not include transaction-level data pertaining to consumer purchases. In addition, this study reports only aggregate metrics, and reveals no information about any specific issuer.

¹⁸ See Bureau of Consumer Fin. Prot., *Consumer Credit Trends*, <https://www.consumerfinance.gov/data-research/consumer-credit-trends/> (last visited July 15, 2019).

¹⁹ See Bd. of Govs. of the Fed. Reserve System, *Report Forms FR Y-14M*, <https://www.federalreserve.gov/apps/reportforms/reportdetail.aspx?sOoYJ+5BzDYnbIw+U9pka3sMtCMopzoV> (last visited July 15, 2019) (for more information on the Y-14M collection).

²⁰ The Board has expanded the fields it collects from banks over time; therefore, some results reported below do not extend all the way back to 2012. Additionally, these data are periodically revised retroactively, and are therefore not fully static. These issuers represent a large portion of the market, but are not necessarily representative of the portion of the market not covered by the data the Bureau receives. A substantial number of consumer credit cards, cumulatively representing the remainder of the market as measured by outstanding balances, are outside the scope of the Y-14 data used by the Bureau because, among other reasons, they are issued by banks with assets of less than \$50 billion, or are issued by non-banks, such as credit unions. Results reported from Y-14 data throughout this report should be interpreted accordingly.

These data replace loan-level credit card collections that the Bureau previously collected.²¹ The Bureau no longer requires or oversees the collection of any loan-level credit card data on an ongoing basis.

3. Information provided in response to a series of data requests made to several industry participants, comprised of two distinct sets:²²

a. Data requested from a broad and diverse group of issuers to address a range of topics that neither CCP nor Y-14 data can address. This report refers to these data as Mass Market Issuer (MMI) data. These data cover application and approval volumes, rates, and channels, digital account servicing, and debt collection.

b. Data requested from a diverse group of specialized issuers. These summary data, which focus on basic metrics of usage and cost, in places supplement the Y-14 to allow for a broader or more detailed perspective into certain facets of the market than either the Y-14 or CCP allow. Where these data supplement Y-14 data, those data are collectively called “Y-14+”.

4. The CFPB’s Credit Card Agreement Database, an online database available to the public at <http://www.consumerfinance.gov/credit-cards/agreements>, was created pursuant to the CARD Act. It contains most credit card agreements available to consumers as of quarter’s end for each quarter from the third quarter of 2011 to the fourth quarter of 2014, and from the first quarter of 2016 to present.²³ After the fourth quarter of 2014, the Bureau temporarily suspended collection of agreements for one year to reduce burden while the

²¹ See generally Bureau of Consumer Fin. Prot., *Sources and Uses of Data*, at 57-58 (Sept. 26, 2018), available at <https://www.consumerfinance.gov/data-research/research-reports/sources-and-uses-data-bureau-consumer-financial-protection/>.

²² The Bureau notes that many players in the credit card industry are also entities with which the Bureau has one or more institutional relationships, such as a research partnership or membership on a Bureau-convened body.

²³ Credit card issuers are not required to submit any credit card agreements to the Bureau if the card issuer has fewer than 10,000 open credit card accounts as of the last business day of the calendar quarter. 12 C.F.R. § 1026.58(c)(5).

Bureau developed a more streamlined and automated electronic submission system.²⁴ Submission and publication resumed in the first quarter of 2016.

5. Responses to the RFI, which sought comment on all aspects of the review described in Section 1.2 above.²⁵ The RFI generated 11 comments. That total includes six letters from trade associations representing credit card issuers and other market participants, two letters from individual issuers, one letter from an industry-side market participant, one letter from a consumer advocacy group, and one letter from a consumer.

6. Credit card complaints that consumers have submitted to the Bureau's Office of Consumer Response.

7. Commercially available data sources to which the Bureau subscribes that focus on the credit card industry, including mail volume monitoring reports, industry analyst reports, and data services and analytics from industry consultants.

8. Numerous public sources, including but not limited to Securities and Exchange Commission (SEC) filings, analyst reports, studies and data produced by other regulators, academic scholarship, and the trade press.

9. Other information gathered informally through Bureau market monitoring activities.

1.3.2 Credit scores

Throughout this report, the Bureau refers to consumer credit scores. Lenders use these scores to predict a consumer's relative likelihood of repaying a debt compared to other consumers. Credit scores provided by major national consumer reporting agencies are used by most credit card issuers to determine consumers' eligibility for credit and to set pricing for credit lines.²⁶ Data relied upon in this report include widely-used, commercially-available credit scores.

There are two important limitations to the way the Bureau uses credit scores in this report. Different credit score models, while fundamentally similar, may include or exclude different

²⁴ 80 Fed. Reg. 21153 (Apr. 17, 2015); 12 C.F.R. § 1026.58(g).

²⁵ 82 Fed. Reg. 13313 (Mar. 10, 2017).

²⁶ Section 8.3.1 discusses the increased reliance of some credit card lenders on data and/or scores other than those provided by the major national credit bureaus.

data points or weight them differently. This means, first, that data are aggregated on the basis of credit score even though not all consumer credit scores are computed using identical methodologies. Second, it means that, when reporting certain metrics over longer time horizons, the introduction of new models and changes in the prevalence of various models complicates comparisons between different points in time. In some cases, one or both of those two issues could affect which “credit score tier” applies to a certain account or consumer. (“Credit score tiers” used are defined further below.) The Bureau believes that different credit scoring methodologies, over the time periods and set of market participants examined in this report, are sufficiently consistent that it remains informative and useful to report aggregated results and changes over time by credit score. The Bureau nevertheless proceeds with caution when assigning precision, beyond a reasonable degree, to certain results.

When reporting results by credit score in this report, scores are grouped into five tiers. This five-tier grouping aligns with the groupings used in the Bureau’s 2017 Report on the credit card market and the Bureau’s Consumer Credit Trends reporting. Table 1 shows the distribution of adults, scored adults, and scored cardholders in each credit score tier.

TABLE 1: CREDIT SCORE RANGE SHARES AS OF Q4 2018 (CCP)

Credit score tiers	U.S. adult population	U.S. scored population	U.S. scored credit cardholding population
Superprime (scores of 720 or greater)	42%	53%	62%
Prime (scores from 660 to 719)	12%	16%	17%
Near-prime (scores from 620 to 659)	6%	8%	8%
Subprime (scores from 580 to 619)	6%	7%	6%
Deep subprime (scores of 579 or less)	13%	16%	7%
Thin or stale score file	11%	-	-
Credit invisible ²⁷	11%	-	-

²⁷ Kenneth P. Brevoort, Philipp Grimm, & Michelle Kambara, *Data Point: Credit Invisibles*, at 6, Office of Research, Bureau of Consumer Fin. Prot., (May 2015), http://files.consumerfinance.gov/f/201505_cfpb_data-point-credit-invisibles.pdf.

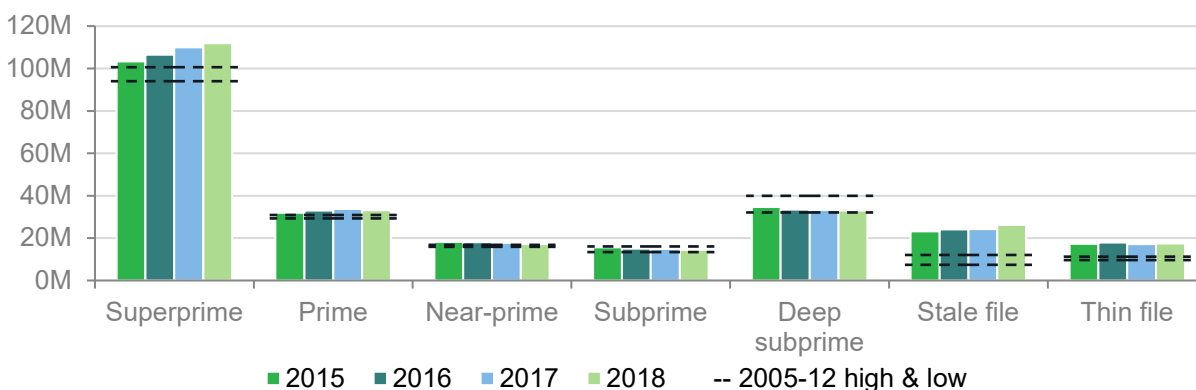
Credit scores in the CCP and Y-14 are refreshed regularly. Unless noted otherwise, accounts and consumers are classified into score tiers based on their credit score at that time. As a result, when analyzing trends over time within a particular credit score tier, the set of accounts or consumers in a tier changes over time. This fact is especially important to note given that many consumers experience changes in their credit score that are large enough to move them from one credit tier to another.²⁸

Credit scores have generally shifted upward in recent years. In fact, this shift has occurred even as the total scored population has been growing, making it even more striking that the absolute numbers of consumers with lower credit scores has been declining. Since the period from 2011 through 2012, when both the absolute number and the share of consumers with below-prime credit scores peaked, the number of consumers with lower scores has fallen by 8.5 million and the share has fallen by 7 percent. Nearly all of this change was in the deep subprime tier.²⁹

²⁸ See 2015 Report, *supra* note 5, at 53-55.

²⁹ One commenter asserted that “credit scores are currently over-inflated.” See Randolph-Brooks Federal Credit Union Comment Letter, at 2-3. The basis for this assertion is that falling unemployment rates have contributed to this phenomenon because the relationship between unemployment and credit scores appears to have changed since the recession. The Bureau notes that many factors might contribute to increasing scores, including evolving scoring models, the adoption or use of alternative credit data, the removal of some recession-era derogatory marks, and the effect of certain CARD Act restrictions on younger and lower-income borrowers. The Bureau presents some findings on credit scores and scoring shifts in Section 4, effects of the CARD Act in Section 6, and innovations that may also be contributing to those changes in Section 8.3.1.

Figure 1: CONSUMERS WITH A CREDIT SCORE (CCP)



1.3.3 Other definitions

Throughout most of this report, the term “general purpose credit card” refers to credit cards that can transact over a network accepted by a wide variety of merchants, including the Visa, Mastercard, American Express, and Discover networks. The term “private label” refers to cards that can only be used at one merchant or a small group of related merchants.³⁰ In some instances, mainly in certain parts of Sections 4 and 5, the term “retail” refers to a combined category of private label cards and some network-branded cards that are managed by a business unit that specializes in retail credit cards.³¹

There are many ways to take a snapshot of consumer credit card indebtedness. The Bureau relies on two of the most prevalent, using nominal figures unless otherwise indicated. The first one entails measuring the current amount owed by consumers on a specific date, regardless of where in any individual consumer’s billing cycle that date falls. Debt calculated in this manner is

³⁰ Private label cards generally transact over a private network maintained by the issuer to which the merchant is granted access. Some cards can transact over both a private label network and a general purpose network. For example, a consumer may be issued a card that features a merchant’s brand as well as a general purpose network brand. When used at the merchant, the transaction may be routed over the issuer’s private network, but at other merchants the transaction is routed over the general purpose network. For the purposes of this report, those cards are considered to be general purpose credit cards except where explicitly noted otherwise.

³¹ Retail cards do not include network-branded cards that carry hotel or airline branding, even if those cards are managed by a business unit that specializes in retail credit cards.

referred to as “outstandings.” For example, if one were to report the total amount owed by consumers on credit cards as of December 31, 2018, it would be referred to as outstandings.

The second method entails measuring the amount owed by consumers at the end of their billing cycles, regardless of whether those cycles fall on a certain date. The Bureau refers to debt calculated in this manner as “balances,” and in most cases as “cycle-ending balances.” For example, if one were to report the total amount owed by consumers at the end of their billing cycles that concluded in December 2018, it would be referred to as cycle-ending balances and, for some accounts, would calculate balances as of, *e.g.*, the 10th of the month.

This report also uses the term “debt” to refer to both of these amounts interchangeably. Note also that consumer debt on credit cards (whether calculated as month-end outstandings or cycle-end balances) includes both “revolving” debt—the amount owed on accounts for which the balance was not paid in full by the immediately prior statement due date—and “transacting” debt—charges incurred on accounts for which the balance was paid in full by the immediately prior statement due date. While transacting accounts represent a large share of all credit card purchase volume, revolving accounts generally represent a large share of all credit card debt at any given point in time. More detail on revolving and transacting patterns is provided in the subsequent sections of this report.

Throughout this report, the Bureau refers to the “Great Recession,” which officially began in the final quarter of 2007 and ended in the second quarter of 2009. This report sometimes refers to it simply using the shorthand “the recession.” In many instances, these terms are used interchangeably, generally when attempting to compare or contrast trends or measurements taken in the period prior to the onset of the recession to more recent periods. Those references are generally used for convenience and should not be interpreted as a statement as to precisely when the recession began or concluded.

1.3.4 Limitations

The limitations inherent to the Bureau’s methodology in this report are substantially similar to those inherent in the Bureau’s previous reports on the credit card market.³² Those limitations are restated here briefly.

First, while the Bureau would ideally like data and evidence that allows it to definitively identify the causes of certain outcomes, the data available generally do not allow it to do so. The Bureau cautions against interpreting factual observations in the study as definitively proving or disproving particular causal relationships.

Second, each of the data sources the Bureau analyzes have particular limitations. Some sources are not a comprehensive view of the market; some are limited to the account level or the aggregate level; and some are purely qualitative. Not all data sources use consistent definitions or delineations or cover the same periods, products, or phenomena. To the extent possible, the Bureau mitigates these limitations. Every attempt is made to harmonize definitions and to identify those places where the Bureau is unable to do so.

³² See, in particular, the 2015 Report at page 27.

2. Use of credit

To provide a foundation for analyses in subsequent sections, this section reviews several market metrics that cover four aspects of the consumer credit card market.

First, this section describes the overall size of the market. By some metrics, such as total credit card debt outstanding, the market has generally grown back to or even surpassed its pre-recession size, at least in nominal terms.³³

Second, this section looks at a number of basic metrics about consumer usage, including cardholding patterns, consumer-level and account-level balance and payment behavior, and persistent indebtedness. Some of these point to potentially significant differences between the credit card debt held by consumers prior to the recession and the debt they hold today.

Third, this section reports on delinquency and charge-off rates. These remain below historic norms but are worsening even as widely relied-upon macroeconomic indicators—like the unemployment rate—are not deteriorating.

Last, this section covers consumers’ increasing use of digital technology to, for example, review transactions and pay credit card bills.

2.1 Market-level metrics

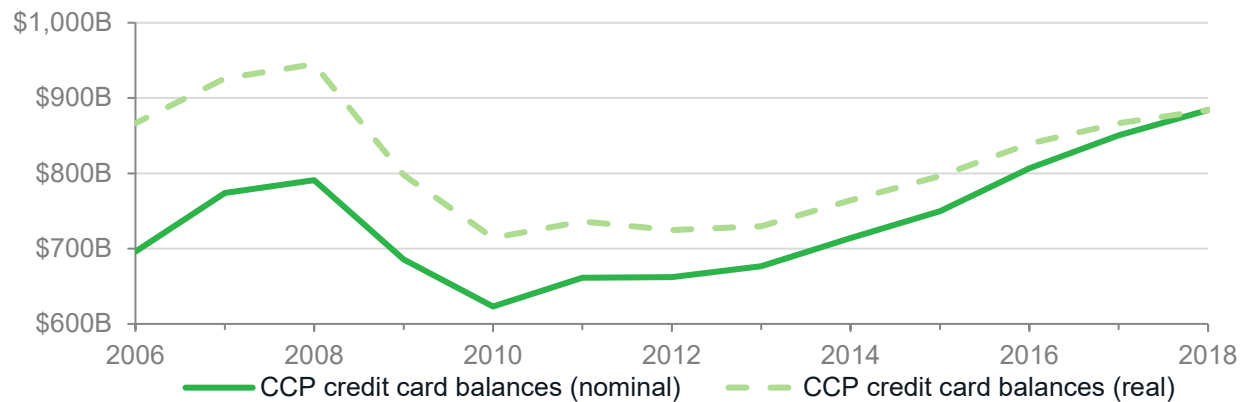
2.1.1 Total debt

Since the Bureau’s 2017 Report, consumer credit card debt has continued its steady growth. In nominal terms, by the end of 2018, it was approaching \$900 billion, well above its pre-recession

³³ In addition, as some commenters point out, “credit card debt as a share of disposable income has been relatively flat and remains...below pre-recession levels.” ABA Comment Letter, at 3.

peak of \$792 billion. Adjusted for inflation, however, current debt is more comparable to 2006 levels, as shown in Figure 1.

Figure 1: AVERAGE CREDIT CARD BALANCES, NOMINAL AND INFLATION-ADJUSTED (CCP, BLS)³⁴



Considering just general purpose cards, in its last report the Bureau noted that balances had more-or-less steadily increased since the end of 2010 but had not yet returned to nominal pre-recession levels. By the fourth quarter of 2018, however, total outstanding general purpose credit card debt stood at \$793 billion, well above the \$732 billion mark reached in the third quarter of 2008. This result has been driven by growth in debt, including transacting debt, held by cardholders with superprime scores. General purpose card balances for consumers in every other tier remained below pre-recession highs, even in nominal terms, although consumers with prime scores were approaching those previous levels.

Private label credit card debt has also been growing rapidly in recent years. It reached \$91 billion in the fourth quarter of 2018, an increase of 20 percent since the start of 2015 and a 38 percent increase since its pre-recession high in the fourth quarter of 2007. In marked contrast to general purpose balances, by the end of 2018, private balances held by consumers in every credit

³⁴ This chart displays average cycle-ending balances calculated across each full year, which decreases the effect of seasonality.

tier had attained pre-recession levels. Consumers with deep subprime scores were the last to cross this threshold in the fourth quarter of 2017.

2.1.2 Purchase volume

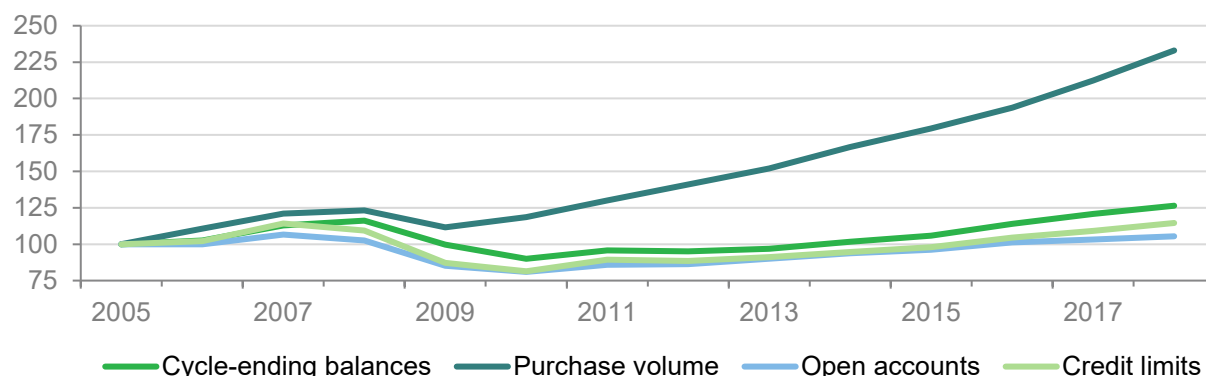
Purchase volume has continued to grow much faster than debt. Figure 2 shows the growth in annual purchase volume on general purpose cards compared to the change in debt levels, open accounts, and credit limits on these products, all indexed to 2005 levels.³⁵ Purchase volume has taken off while balances and credit limits have only just surpassed their pre-recession peaks and account incidence is still below pre-recession levels.³⁶ From 2015 through 2018, purchase volume grew 30 percent compared with growth of 20, 17, and 10 percent for balances, credit line, and account incidence respectively.

General purpose credit card purchase volume was \$3.7 trillion in 2018, nearly double its pre-recession high. Consumers with superprime credit scores accounted for 82 percent of this 2018 spending, some 0.8 percentage points higher than in 2015. Consumers with prime scores accounted for 13 percent, some 0.6 percentage points lower than in 2015. The remaining tiers made up 5 percent, which was 0.15 percentage points lower than in 2015.

³⁵ Figure 2 uses *The Nilson Report* data to show a perspective on purchase volume longer than Y-14 sources permit. Data on purchase volume are not included in the CCP.

³⁶ General purpose balances and credit line are each up 0.3 percent on pre-recession levels. General purpose account incidence is 1.2 percent lower than its 2007 high. The Federal Reserve reports card payments “continued to show robust growth...” which may suggest an increase in tender share. Fed. Reserve Board, *The Federal Reserve Payments Study: 2018 Annual Supplement*, at 1 (Dec. 2018), available at <https://www.federalreserve.gov/paymentsystems/2018-December-The-Federal-Reserve-Payments-Study.htm>.

Figure 2: INDEXED ANNUAL GROWTH OF CREDIT CARD CYCLE-ENDING BALANCES, PURCHASE VOLUME, ACCOUNTS, AND CREDIT LIMITS, GENERAL PURPOSE (CCP, THE NILSON REPORT)



Overall, this means that the long-running trend wherein cardholders increasingly make credit card purchases that they do not revolve (or do not revolve for long) has continued into the last few years. A recent *The Nilson Report* notes that “the percentage of total credit card debt subject to finance charges, the revolving debt component of outstanding receivables, has declined almost every year over the last two decades.”³⁷ *The Nilson Report* further states that credit card debt as a percentage of purchase volume on U.S. general purpose cards has fallen from 64.7 percent in 1996 to 26.5 percent in 2018.³⁸

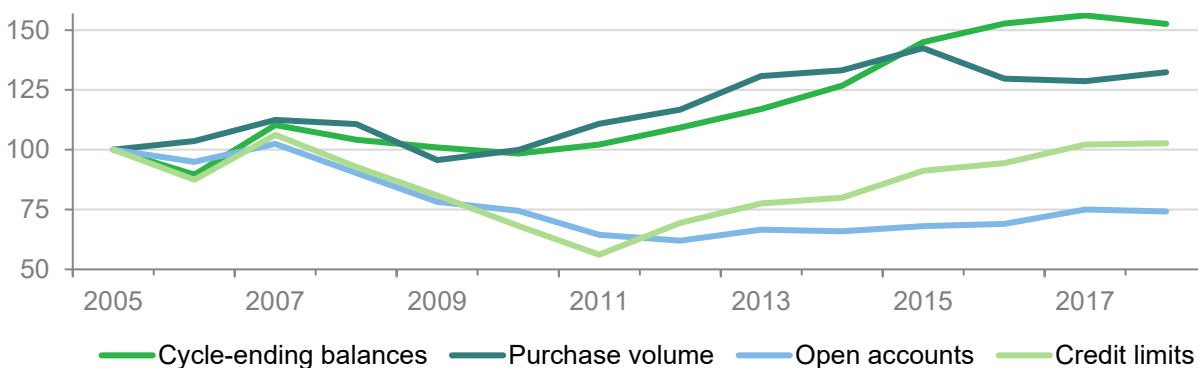
Private label cards show very different trends. Until recently, private label balances and purchase volume expanded roughly in tandem. Over the last few years, however, balances have grown more significantly than purchase volume. The discrepancy in growth rates peaked in 2017, when balances reached 156 percent of their 2005 level and purchase volume actually fell to 129 percent of their level in 2005. By the end of 2018, though, private label purchase volume was growing again, while balances had returned to 2016 levels. The value of total private label credit lines has continued to grow steadily over the last few years, surpassing pre-recession levels for the first time in 2018. That run-up has been achieved even as the total number of open private label accounts in 2018 was similar to the total in 2010 and still well below its 2007 peak.

³⁷ The Nilson Report, No. 1145. Data available to the Bureau does not cover as broad a period, but confirms this trend for general purpose cards from 2015 through 2018.

³⁸ *Id.*

Spending on private label credit cards is also spread marginally more evenly across credit tiers, with consumers in the superprime and prime tiers together accounting for 84 percent of all private label spending in 2018.

Figure 3: INDEXED ANNUAL GROWTH OF CREDIT CARD CYCLE-ENDING BALANCES, PURCHASE VOLUME, ACCOUNTS, AND CREDIT LIMITS, PRIVATE LABEL (CCP, THE NILSON REPORT)³⁹



2.2 Consumer use metrics

This subsection examines changes in a number of metrics of consumer use of credit cards. At the consumer level, this subsection reviews average credit card debt and cardholding.⁴⁰ At the account level, it reviews revolving and payment rates. This section also introduces a new measure of the amount of time that balance is carried. In contrast to the market's general return

³⁹ Purchase volume as reported here uses a different definition of private label cycle-ending balances than in the Bureau's 2017 Report. The latter definition relied on store cards alone. The present report includes other private label products, such as medical, oil or gas company cards, and fleet private label cards.

⁴⁰ Average purchase volume cannot be observed over this same period because the Bureau does not have purchase volume data in the CCP. The Bureau's analysis of average credit line can be found in Section 4.

to pre-recession scale, these consumer use metrics reveal some notable differences between then and now.

2.2.1 Average debt

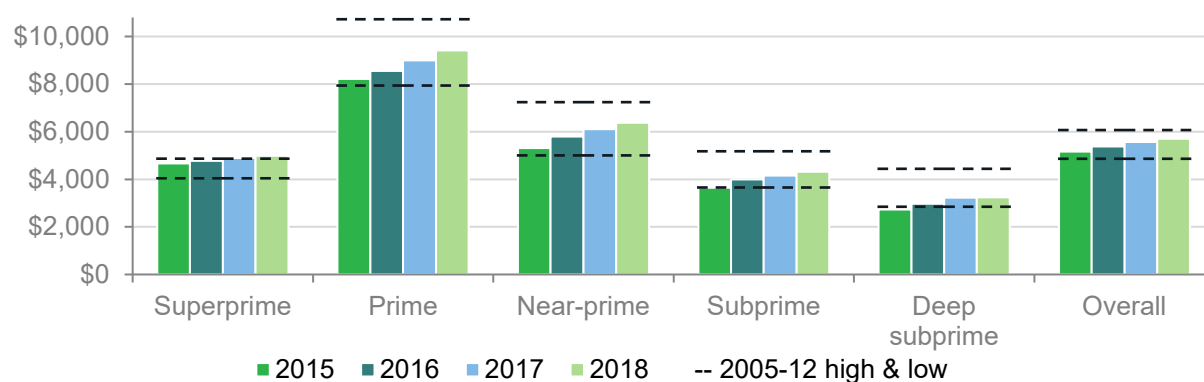
GENERAL PURPOSE

Figure 4 shows average general purpose credit card balances for consumers who held at least one such card with a balance. These were roughly \$5,700 as of the end of 2018, which is the highest figure observed since the middle of 2009. Superprime cardholders show average balances in 2018 above their recession high of nearly \$5,000, which was recorded in late 2008.⁴¹ Given that fewer than one in three cardholders with superprime scores revolve a balance on their credit cards, this likely represents less a shift in consumer indebtedness patterns than in purchase behavior, with credit cards potentially substituting for other payment instruments.⁴²

⁴¹ In real terms, however, not even superprime consumers have reached average debt levels seen before the recession. Their 2008 level translates to \$4,700 in 2018 dollars, 8 percent above their level in the fourth quarter of 2018.

⁴² See Figures 8 and 9 in Section 2.2.3. General purpose credit card transactions increased 10.8 percent by value year-over-year in 2017, compared to 7.0 percent growth for non-prepaid debit cards and 3.0 percent growth for prepaid cards. Further, based on available data the Federal Reserve observed that the number of check payments and cash withdrawals from ATMs continued to decline. Fed. Reserve Board, *The Federal Reserve Payments Study – 2018 Annual Supplement*, (Dec. 20, 2018), available at <https://www.federalreserve.gov/paymentsystems/2018-December-The-Federal-Reserve-Payments-Study.htm>.

Figure 4: AVERAGE PER-CARDHOLDER YEAR-END CREDIT CARD BALANCES, GENERAL PURPOSE (CCP)⁴³



General purpose card debt per cardholder has grown for all credit score tiers since 2015, although this measure remains below highs during the recession. Per-cardholder general purpose credit card debt has grown 11 percent since the beginning of 2015. In fact, consumers with deep subprime scores have seen average balances increase by 20 percent over this same time period. As discussed in more detail below, payment rates have increased much more slowly and rates of revolving in below-prime credit tiers are high. The growth in per-cardholder debt among cardholders with lower scores, therefore, represents an increase in revolving debt rather than a shift in purchase behavior.

Cardholders with prime credit scores consistently show significantly higher credit card balances on average than cardholders in any other credit score tier. Over the four quarters in 2018, general purpose balances for these consumers averaged over \$8,000 per cardholder. Despite these high and increasing debt levels, these levels remain well below their peak values recorded in 2008, even in nominal terms.

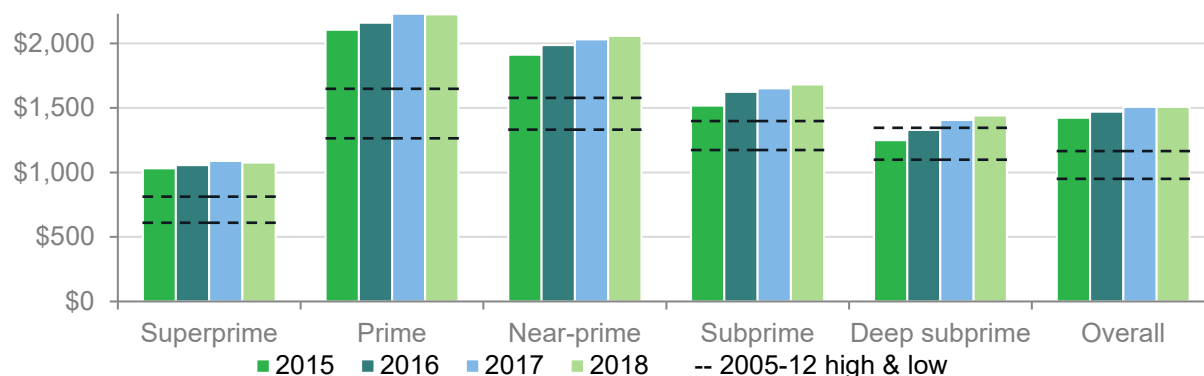
PRIVATE LABEL

Figure 5 similarly shows average per-cardholder balances for private label cardholders has grown for all tiers since 2016. Growth in average private label balances since 2011 has been

⁴³ Figures 4 and 5 show average per-cardholder balances for cardholders with a balance reported as of the last quarter of the year.

significant, with values in all of the credit tiers above their peak levels before or through the recession. Growth over the past three years has been more modest. Average per-cardholder private label balances were \$1,507 as of the end of 2018, compared to \$1,470 for the same quarter of 2016.

Figure 5: AVERAGE PER-CARDHOLDER YEAR-END CREDIT CARD BALANCES, PRIVATE LABEL (CCP)



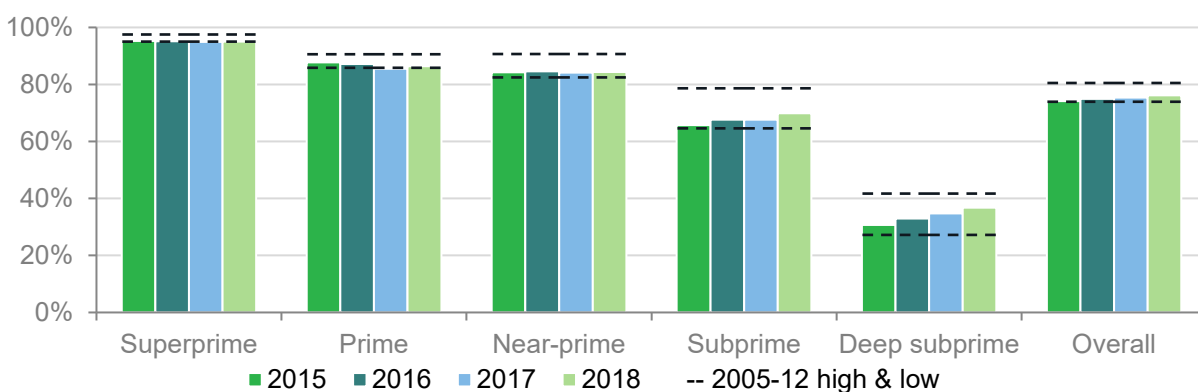
2.2.2 Consumer cardholding

The Bureau estimates 66 percent of the 255 million adults in the United States had a credit card account in their name as of the end of 2018.⁴⁴ Around 93 million consumers hold at least one general purpose and at least one private label card. Some 64 million hold only general purpose cards. Just under 10 million hold only private label cards. Private label cardholding was less common in 2018 than it was prior to the recession—in 2005, 51 percent of adults held at least one private label card, compared to 40 percent in 2018. For scored consumers, that trend holds for consumers in all credit score tiers. In contrast, general purpose cardholding is just as common today as it was prior to the recession, at 61 percent.

⁴⁴ A recent report from the Federal Reserve finds 81 percent of consumers report having at least one credit card. As noted above in this section, roughly 66 percent of consumers have one, though this does not include authorized users, who are individuals designated by the primary account holder to use the same credit account. At 12 million, authorized users would account for roughly an additional 5 percent of the adult population. See Fed. Reserve Board, *Report on the Economic Well-Being of U.S. Households in 2018*, at 27 (May 2019), <https://www.federalreserve.gov/publications/files/2018-report-economic-well-being-us-households-201905.pdf>.

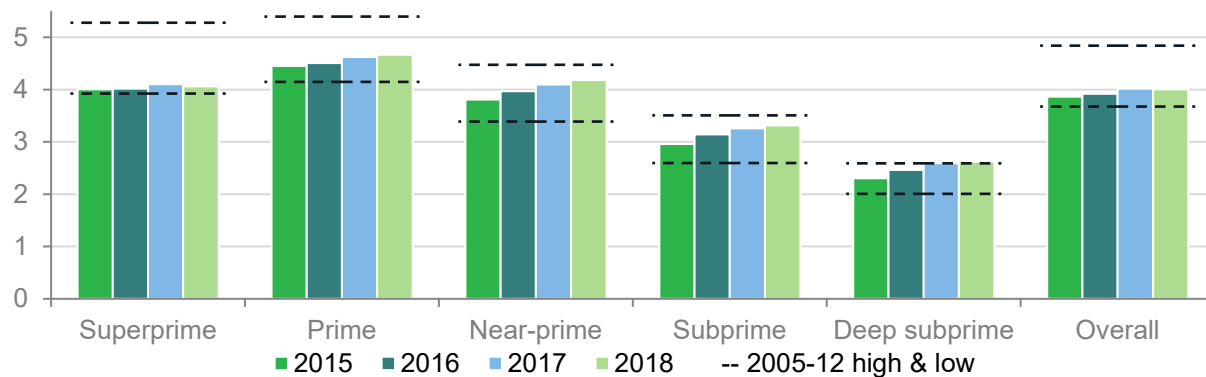
Figure 6 shows recent trends in the share of scored consumers, by credit tier, holding at least one open credit card account. Cardholding dropped significantly across every credit score tier during (and for a year or two following) the recession. This metric has grown in recent years in the lower credit tiers, but it has not yet returned to pre-recession levels for cardholders in any credit tier.

Figure 6: SHARE OF CONSUMERS WITH SCORES AND AT LEAST ONE CREDIT CARD (CCP)



As Figure 7 reflects, this same increase is also evident in the average number of open accounts held. However, Figure 7 also shows that consumers in nearly every credit tier still hold fewer cards than they did before the recession. The difference is sharpest for consumers with superprime scores, who averaged well over five open accounts in each tier before the recession, but in 2018 were at or nearer four such accounts. Cardholders in below-superprime tiers, however, have shown positive year-over-year growth in every quarter since 2012 when they reached their lowest levels. Interestingly, the average number of open accounts held by prime cardholders has increased, even while the share of prime consumers with at least one credit card has decreased since 2015.

Figure 7: AVERAGE NUMBER OF OPEN CREDIT CARD ACCOUNTS HELD PER CARDHOLDER (CCP)



2.2.3 Revolving rates

Accounts with balances can be identified as exhibiting one of two basic patterns in any given cycle. “Transacting” accounts pay off the previous cycle’s balance in full before the end of the next cycle. “Revolving” accounts pay some amount less than that.⁴⁵ Although an account can move back and forth between transacting and revolving, many accounts reveal persistent payment behavior over time.⁴⁶

Figures 8 and 9 show the average share of accounts revolving a balance from one month to the next for general purpose and private label cards, broken down by cardholder credit score. There are no significant changes in revolving rates in any credit tier over the last few years. Revolving rates decrease as credit scores increase. For all credit score tiers, general purpose revolving rates continue to be higher than private label ones.

⁴⁵ The methodology for determining an account is revolving has changed from when the Bureau reported on this in 2017. In this report, an account is considered “revolving” in a cycle if its beginning balance is larger than the sum of payments received in a given cycle. If the sum of payments is equal to or exceeds a non-zero beginning balance, it is considered “transacting.” If an account does not satisfy either condition, for example if the beginning balance is zero, it is “neither transacting nor revolving.”

⁴⁶ 2015 Report, *supra* note 5, at 50-52 (citing Benjamin J. Keys & Jialan Wang, *Minimum Payments and Debt Paydown in Consumer Credit Cards*, (U. of Chicago Harris Sch. of Pub. Pol’y, Working Paper 2015), <https://business.illinois.edu/finance/wp-content/uploads/sites/46/2015/01/Jialan-Wang-JMP.pdf>).

Figure 8: SHARE OF ACCOUNTS REVOLVING, GENERAL PURPOSE (Y-14+)⁴⁷

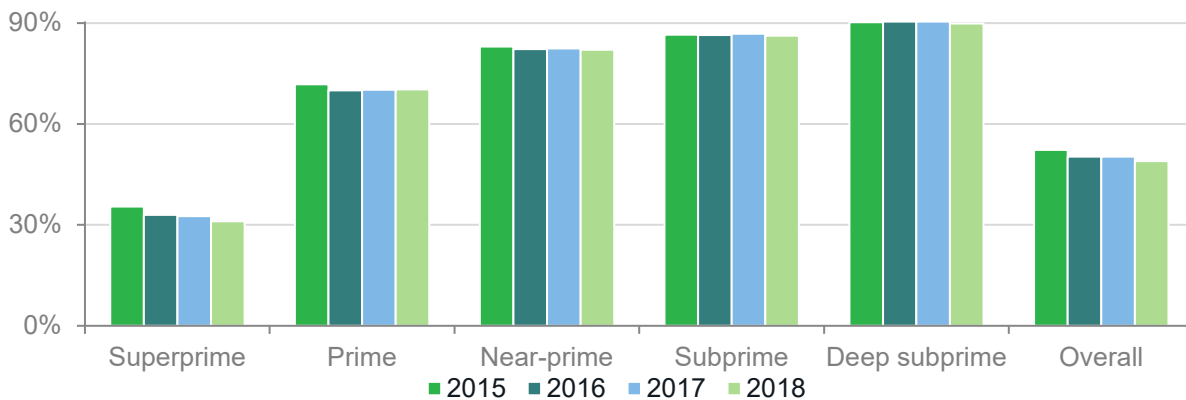
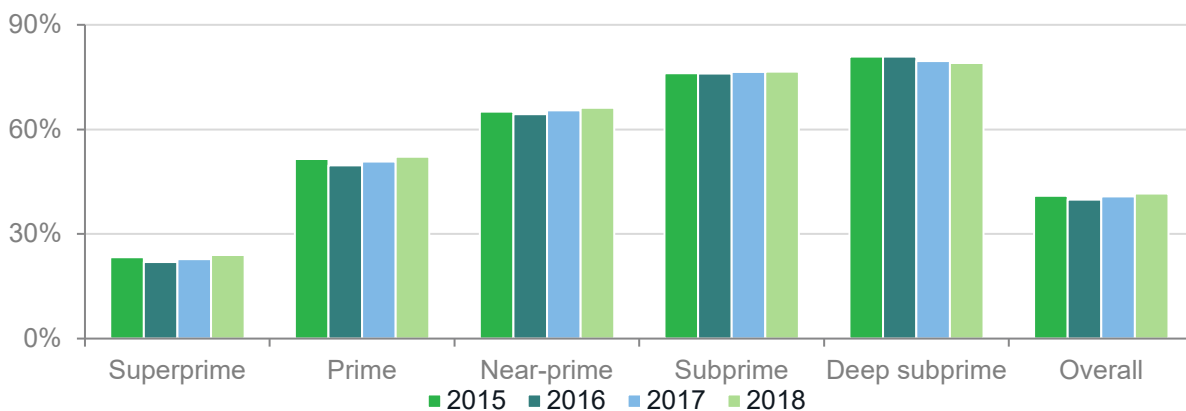


Figure 9: SHARE OF ACCOUNTS REVOLVING, PRIVATE LABEL (Y-14+)



Although the Bureau cannot quantify the share of consumers who revolve—only the share of accounts that do so—recent Federal Reserve Board data sheds some light on the consumer experience in this respect. Among those with a credit card, about one-half report that they never carried an unpaid balance during the preceding 12 months, according to the latest survey on economic well-being of U.S. households conducted by the Board. The 2018 survey also found

⁴⁷ Figures that use Y-14 and Y-14+ data are based only on accounts that are “open and active” in a given month or cycle.

that 28 percent of those with a credit card reported paying only the minimum on their bill at least some of the time in 2017. The reported frequency of regular borrowing with credit cards during 2018 was similar to 2017, which was also similar to 2016.⁴⁸

2.2.4 Payment rates

Payment rates provide an additional measure of consumer reliance on credit cards as a source of credit.⁴⁹ The payment rate is the share of total cycle-beginning balances that are paid that cycle.⁵⁰

General purpose card payment rates have continued their steady growth since the recession.⁵¹ As of the end of 2018, they exceeded 30 percent, with recent increases almost entirely driven by consumers with superprime scores. Superprime payment rates were 41 percent in 2015 and rose to 48 percent in 2018. This rise in payment rates occurred without a corresponding decline in revolving rates, indicating that consumers using general purpose cards as transaction devices are increasing purchase volume. That inference is further supported by Figure 2 in Section 2.1.2 showing that purchase volume has grown at a significantly faster rate than balances since the recession.

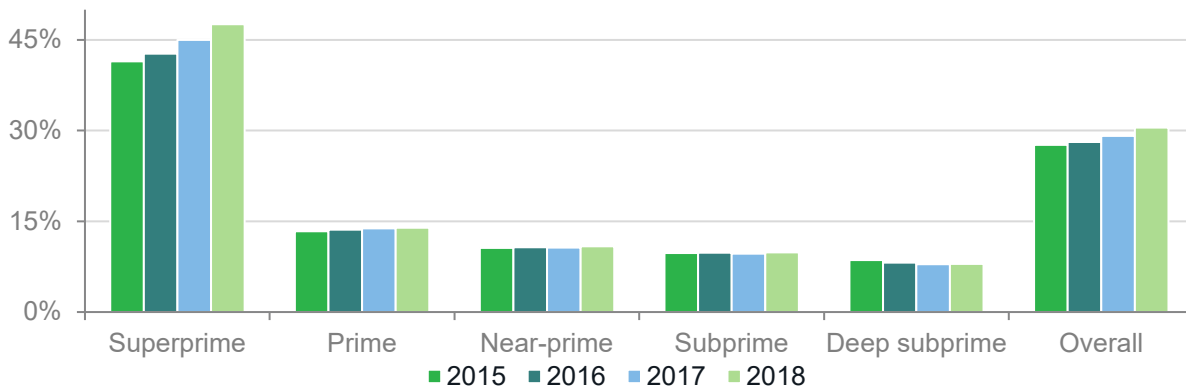
⁴⁸ See Fed. Reserve Board, *Report on the Economic Well-Being of U.S. Households in 2018*, at 27 (May 2019), <https://www.federalreserve.gov/publications/files/2018-report-economic-well-being-us-households-201905.pdf>. See also Fed. Reserve Board, *Report on the Economic Well-Being of U.S. Households in 2017*, at 28 (May 2018), <https://www.federalreserve.gov/publications/files/2017-report-economic-well-being-us-households-201805.pdf>.

⁴⁹ Payment metrics cannot be shown at the consumer level because the CCP does not contain payment data. The Y-14 is used instead for these views.

⁵⁰ Thus, a payment rate of 100 percent corresponds to all account balances being paid in full, and a payment rate of 0 percent indicates that no one is paying any credit card bill even in part.

⁵¹ See 2015 Report, *supra* note 5, at 49.

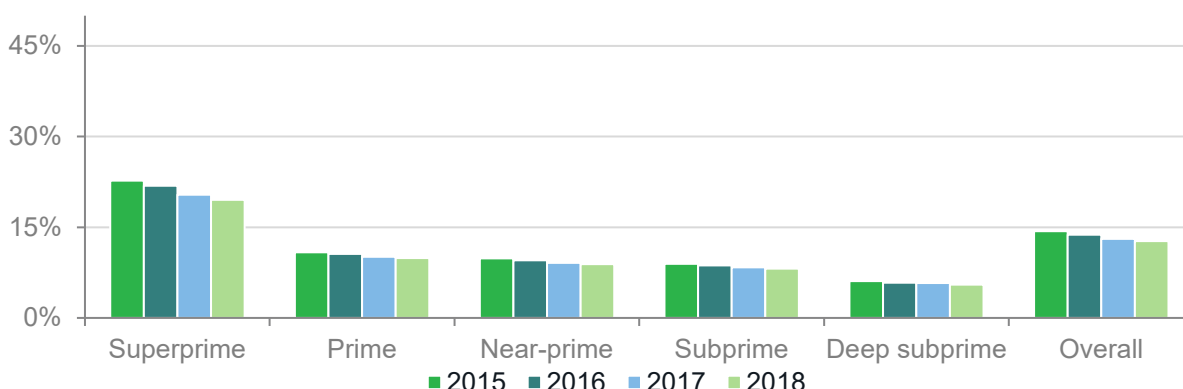
Figure 10: PAYMENT RATE, GENERAL PURPOSE (Y-14+)



Private label payment rates, by contrast, have fallen over recent years, further increasing the spread between general purpose and private label payment rates. Most of the discrepancy is a product of superprime consumer behavior, with superprime general purpose balances paid at a rate more than double that of superprime private label balances. One explanation for decreasing private label payment rates may be an increased prevalence of deferred interest promotions, which incentivize consumers to pay less than the full balance each month so long as the full promotional balance is repaid in full by the end of the promotional period.⁵²

⁵² See 2017 Report, *supra* note 5, at 58 (finding that deferred interest promotional balances outstanding for consumers with superprime scores were equivalent to over half of private label balances owed by those same consumers).

Figure 11: PAYMENT RATE, PRIVATE LABEL (Y-14+)



2.3 Delinquency and charge-off

2.3.1 Delinquency

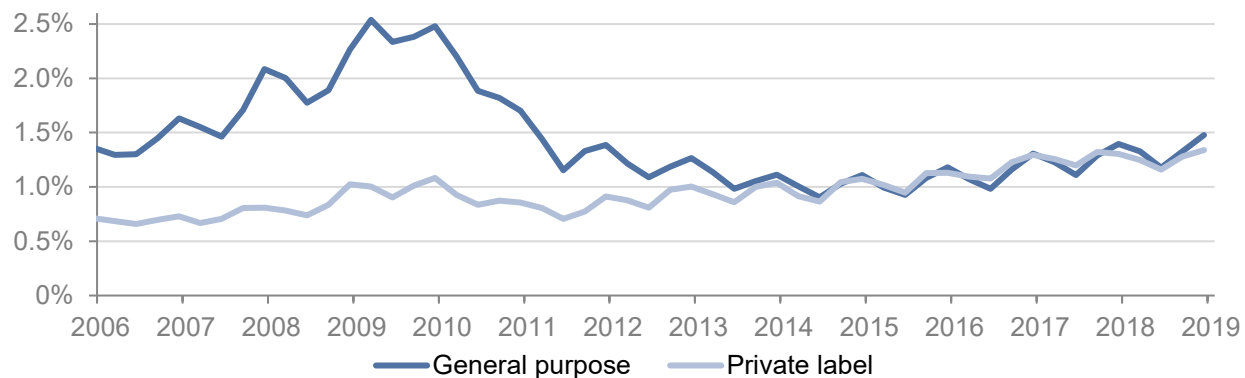
Since 2017, both general purpose and private label card delinquency rates have continued to increase.⁵³ For general purpose cards, the delinquency rate—the share of accounts or balances on those accounts on which a consumer fails to pay the minimum payment by the due date—remains close to or below pre-recession levels. For private label cards, the delinquency picture is more complex.

Before and through the recession, general purpose card accounts became delinquent much more often than private label card accounts. At the height of the recession, general purpose accounts became delinquent at more than twice the rate of private label accounts. In the wake of the recession, however, account delinquency rates for the two major types of cards have moved in near lockstep. General purpose account delinquencies in 2018 were close to their 1.5 percent pre-recession average, whereas private label account delinquency rates in 2018 were higher than

⁵³ When a consumer fails to make a required minimum payment by the due date, the credit card account becomes “delinquent.” Because credit scores are heavily influenced by delinquency and charge-offs, these measures are not shown by credit score.

they have been at any point during the recession. Figure 12 shows account delinquency rate trends.

Figure 12: SHARE OF ACCOUNTS 60 OR MORE DAYS DELINQUENT (CCP)⁵⁴



One explanation for the convergence in account delinquency rates for general purpose and private label cards may be that private label card issuers are increasingly offering cards to consumers with lower credit scores. As discussed in Section 4, prior to 2008, the median credit score associated with new private label cards was about 20 points higher than for general purpose cards. From 2008 until mid-2013, median credit scores on both cards dovetailed. Since late 2013, however, new private label cards have had median credit scores about 10 points lower than new general purpose cards.⁵⁵

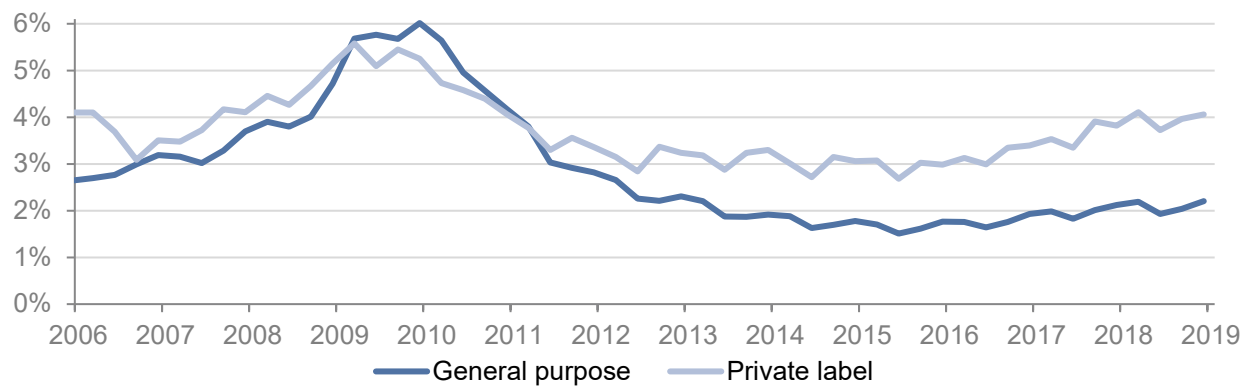
Even as account delinquency rates have converged in the wake of the recession, delinquency rates as shares of balances show the opposite trend, as shown in Figure 13. By mid-2015, balance delinquency rates on general purpose cards declined to 1.5 percent from its recession peak of 6 percent, while private label balance delinquency rates were around 3 percent. They have since

⁵⁴ Figures 12 and 13 use the delinquency definition “60 or more days delinquent,” meaning that the account is at least three minimum monthly payments behind on debt repayment. This is considered “severe” delinquency.

⁵⁵ See Figures 15 and 16 in Section 2.3.2.

increased to 2 percent and 4 percent on general purpose and private label cards respectively. This discrepancy may be explained by different usage patterns between the two cards and changes in the credit profile of new accounts.⁵⁶

Figure 13: SHARE OF BALANCES 60 OR MORE DAYS DELINQUENT (CCP)

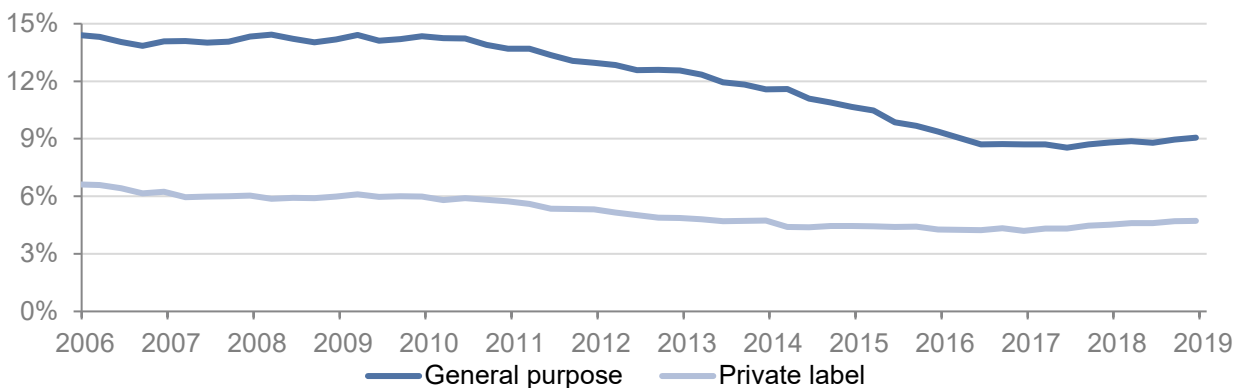


The Bureau also looked at the share of *consumers* that fail to pay and become delinquent. The Bureau's 2017 Report showed that the share of consumers with at least one severe delinquency on a card in the preceding year started falling around 2011 for both general purpose and private label cards.⁵⁷ Since 2017, this share has increased marginally. By 2018, around 9 percent of general purpose cardholders and about 4.5 percent of private label cardholders had at least one severe delinquency in the preceding 12 months.

⁵⁶ See Figures 15 and 16 in Section 2.3.2.

⁵⁷ See 2017 Report, *supra* note 5, at 67.

Figure 14: SHARE OF CONSUMERS WITH A CREDIT RECORD WHO HAVE AT LEAST ONE 60 OR MORE DAY DELINQUENCY ON A CREDIT CARD ACCOUNT IN THE PRECEDING YEAR (CCP)



2.3.2 Vintage delinquency

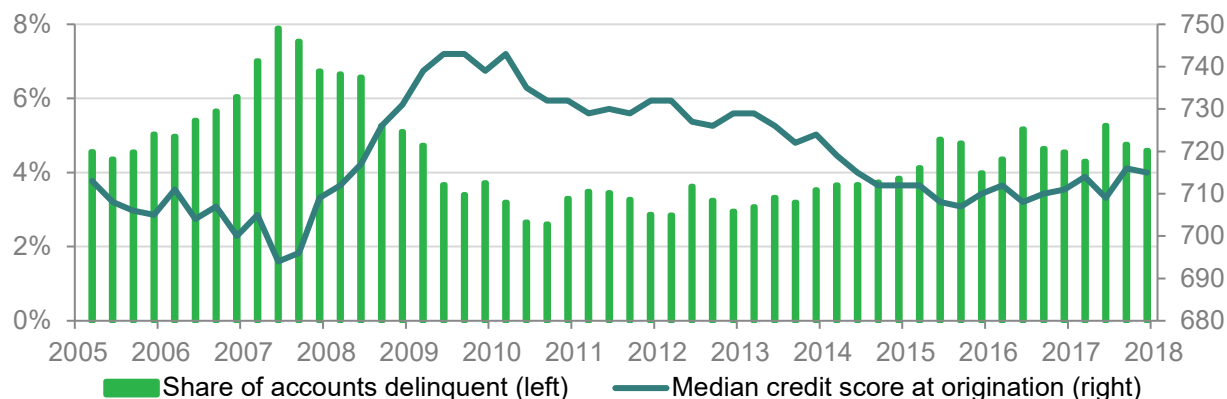
To better understand drivers of recent delinquency trends, it is helpful to review *cumulative* trends in severe delinquency by means of a vintage analysis. With snapshot views of delinquency (like those shown in Section 2.3.1. above), it can be hard to tell what is driving changes in the delinquency rate—an influx of accounts with different risk profiles or a change in delinquencies for accounts that have been open for some time. A vintage analysis can shed light on this by comparing the performance of accounts according to the time period (or “vintage”) in which they opened. It is therefore possible to observe how recently-issued card “vintages” are performing compared to vintages issued previously, including those from right before and after the recession. This vintage analysis can also control for the credit profile associated with an account at origination.⁵⁸

For quarterly vintages of general purpose cards originated since 2015, between 4 and 6 percent of accounts had at least one severe delinquency within the first year after origination. (This is referred to as the “one-year cumulative delinquency” rate.) That is well within the historic range of 2.6 to 7.9 percent for the entire data period, which is shown in Figure 15. There is typically an inverse relationship between credit scores and delinquency; for example, the vintage with the

⁵⁸ Since delinquency has a strong negative impact on a consumer’s credit score, for this analysis cardholders are not grouped by their credit score at issuance.

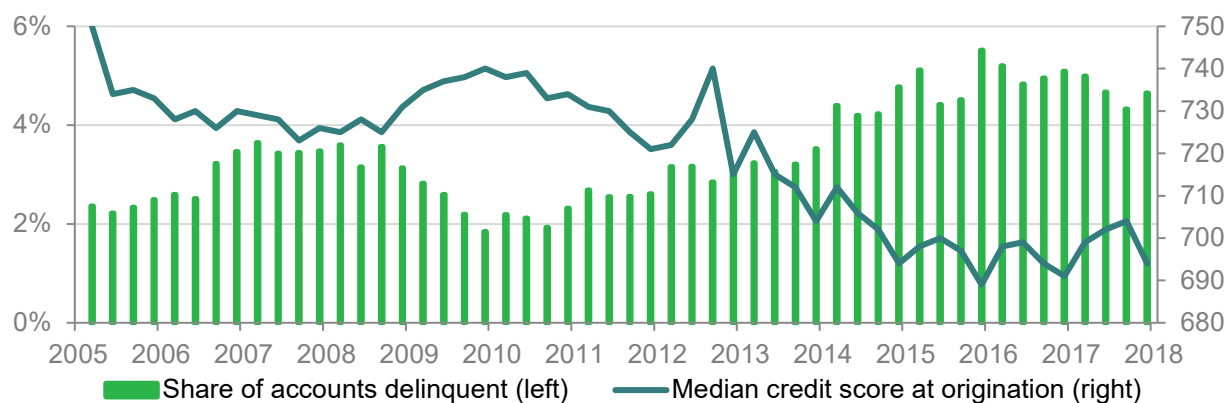
highest delinquency is also the vintage with the lowest median credit score and dates to the second quarter of 2007. However, while recent vintages have delinquency rates on par with pre-recession vintages, they also have higher median credit scores.

Figure 15: SHARE OF ACCOUNTS THAT HAVE HAD AT LEAST ONE 60-OR-MORE-DAY DELINQUENCY AT 12 MONTHS SINCE ORIGINATION AND MEDIAN CREDIT SCORE AT ORIGINATION, BY VINTAGE, GENERAL PURPOSE (CCP)



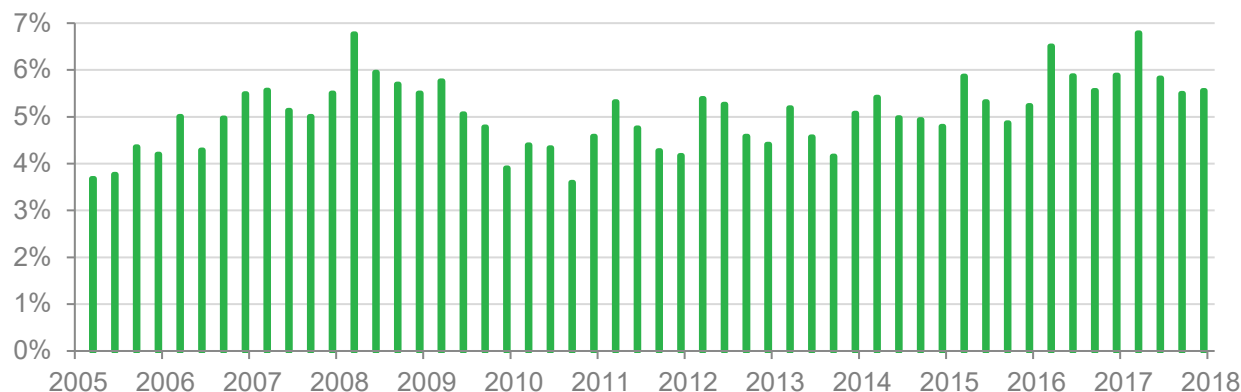
In contrast, Figure 16 shows that one-year cumulative delinquency rates for recent private label vintages markedly exceed historic norms. Part of the explanation may be the looser underwriting standards used by private label card issuers as indicated by the lower median scores at origination for those vintages. As shown in Figure 16, the median credit score on new private label cards in recent years has hovered just below 700, roughly 30 points below that recorded during pre-recession periods.

Figure 16: SHARE OF ACCOUNTS THAT HAVE HAD AT LEAST ONE 60-OR-MORE-DAY DELINQUENCY AT 12 MONTHS SINCE ORIGINATION AND MEDIAN CREDIT SCORE AT ORIGINATION, BY VINTAGE, PRIVATE LABEL (CCP)



Looking within credit score tiers, trends in delinquency rates by vintage are similar to the overall trends. As shown in Figure 17, near-prime account vintages since 2015 have experienced a delinquency trajectory more in-line with the worst-performing vintages of 2008 than with historical norms for that tier. Similarly, while at much lower delinquency rate levels, superprime account vintages from 2017 show higher cumulative delinquency numbers at 12 months than at any point between 2006 and 2014.

Figure 17: SHARE OF NEAR-PRIME ACCOUNTS THAT HAVE HAD AT LEAST ONE 60-OR-MORE-DAY DELINQUENCY AT 12 MONTHS SINCE ORIGINATION, BY VINTAGE, PRIVATE LABEL (CCP)



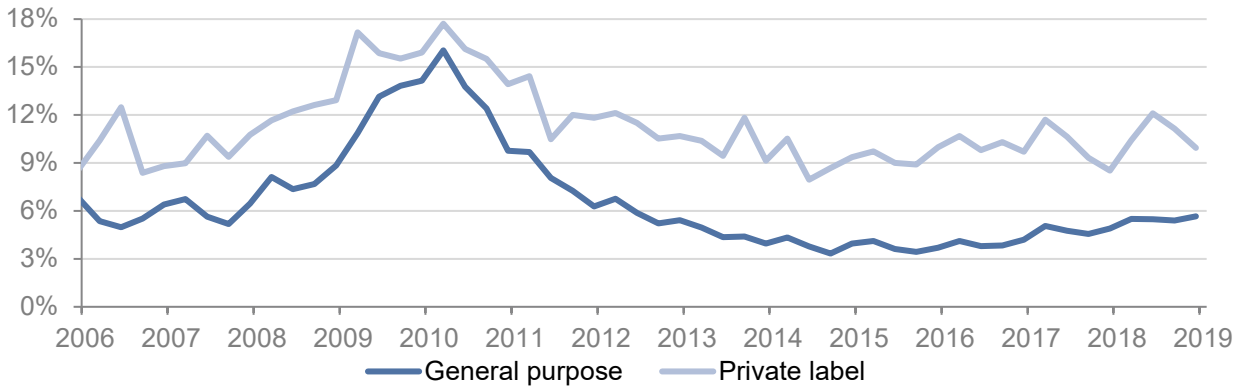
2.3.3 Charge-off

Charged-off balances continue to show similar trends to balance delinquencies, as Figure 18 reflects.⁵⁹ Both general purpose and private label charge-offs fell from high points during the recession to pre-recession levels or lower for most of the past five years. However, both markets have seen upticks in recent periods, recording their highest levels in several years. Forward-looking statements made by several major issuers suggest issuers expect that charge-offs will moderate as economic indicators remain positive.⁶⁰

⁵⁹ Accounts that remain delinquent for 180 days must be “charged off,” meaning that the issuer can no longer consider the outstanding balance as an asset on its balance sheet. Delinquent accounts may have to be charged off prior to 180 days in certain circumstances as, for example, with a bankruptcy. *See* Off. of the Comptroller of the Currency, *Policy Implementation – The Guidance Attached to this Bulletin Continues to Apply to Federal Savings Associations*, OCC Bulletin 2000-20, (June 20, 2000), available at <https://occ.gov/news-issuances/bulletins/2000/bulletin-2000-20.html>.

⁶⁰ Issuers note losses are moderating and the economic environment remains positive. “From a sequential perspective, this was the sixth consecutive quarter of slowing year over- year increases in card charge-offs. This positive trend reflects the fact that normalization continues to moderate.” Discover Financial Services, *Q1 2019 Results – Earnings Call Transcript*, (Apr. 25, 2019), available at <https://seekingalpha.com/article/4256971-discover-financial-services-dfs-ceo-roger-hochschild-q1-2019-results-earnings-call-transcript?part=single>; “Our losses are still improving on a year-over-year basis” Capital One, *Q1 2019 Results – Earnings Call Transcript*, (Apr. 25, 2019), available at <https://seekingalpha.com/article/4256945-capital-one-financial-corporation-cof-ceo-richard-fairbank-q1-2019-results-earnings-call?part=single>; “The outlook for credit as we see it remains positive...Economic indicators remain upbeat.” JPMorgan Chase & Co., *Q4 2018 Results – Earnings Call Transcript*, (Jan. 15, 2019), available at <https://seekingalpha.com/article/4233603-jpmorgan-chase-and-co-jpm-ceo-jamie-dimon-q4-2018-results-earnings-call-transcript?part=single>.

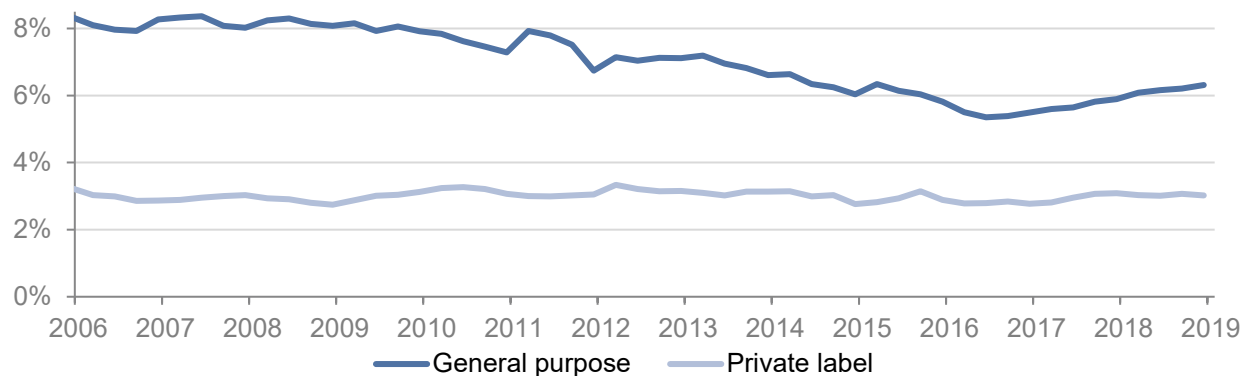
Figure 18: ANNUALIZED RATE OF GROSS OUTSTANDING BALANCES CHARGED OFF (CCP)



Annualized charge-off rates for general purpose cards rose in 2017 and 2018, and by year-end 2018 equaled 5.7 percent of balances. This represents a return to the 2005 to 2007 average charge-off rate of 6 percent, and remains well below charge-off rates observed during the recession, including the high of 16 percent in the first quarter of 2010. Private label charge-off rates follow a roughly similar pattern, but at a higher level. From 2017 to 2018, charge-off rates averaged 10.5 percent, roughly equal to the average observed from 2005 through 2007.

Figure 19 shows the share of consumers who have experienced at least one charge-off in the last year was largely stable for both general purpose and private label cards before and during the recession. From 2010 through mid-2016, the share of general purpose cardholders experiencing a charge-off followed a downward trend, declining from about 8 percent in 2009 Q4 to 5.4 percent in 2016 Q2. Since mid-2016, however, that share has begun to rise, likely owing to expanded credit access to consumers with lower credit scores. On the private label side, the share of consumers who have experienced a charge-off has hewed closely to about 3 percent since 2006.

Figure 19: SHARE OF CONSUMERS WITH A CREDIT RECORD WHO HAVE EXPERIENCED AT LEAST ONE CHARGE-OFF OF A CREDIT CARD ACCOUNT IN THE PRECEDING YEAR (CCP)



2.4 Usage of digital servicing

As discussed elsewhere in this report, digital developments are changing many aspects of the credit card market.⁶¹ This is particularly true with respect to online and smartphone-based account servicing applications (mobile apps) for general purpose credit cards.⁶² This section uses MMI data to examine how consumers use digital account servicing platforms—online account servicing portals (online portals) and mobile apps.

⁶¹ Credit card solicitations and applications through digital channels are discussed in Section 4.1.1. Other aspects of digital servicing are covered in Section 8.1.

⁶² Private label card accounts also utilize digital tools, but the experience is likely different, since many cardholders reach them through merchant websites or also use merchants' digital tools for browsing or shopping rather than for strictly financial means. According to J.D. Power, credit card mobile app users report higher levels of satisfaction with their credit card accounts than do those who do not use mobile apps. See J.D. Power Satisfaction Study, *supra* note 1, (reporting that “use of a credit card mobile app is associated with a 25-point increase in customer satisfaction, although just 39% of customers are currently utilizing credit card mobile apps...”).

2.4.1 Enrollment and account information

Digital engagement is growing across all age groups and platform types. The share of people electing to receive statements digitally (e-statements) rather than by mail is continuing to increase significantly. Growth in mobile app use is especially pronounced, and those who use mobile apps use them a lot—J.D. Power finds 39 percent of customers use mobile banking apps, and Citigroup finds 31 percent of customers include a mobile banking app as one of their top three most-used apps.⁶³ In recent years, several large bank issuers have publicly announced increases in investment into their digital servicing platforms.⁶⁴

Figure 20 shows the share of active mass market credit card accounts enrolled in issuers' online portals and/or mobile apps.⁶⁵ As of 2018, 78 percent of active accounts are enrolled in online portals for general purpose cards, significantly higher than the 55 percent the Bureau reported as of 2014.⁶⁶ That share is nearly 85 percent for active accounts held by consumers ages 25 to 64 and over 87 percent for active account holders under age 25.

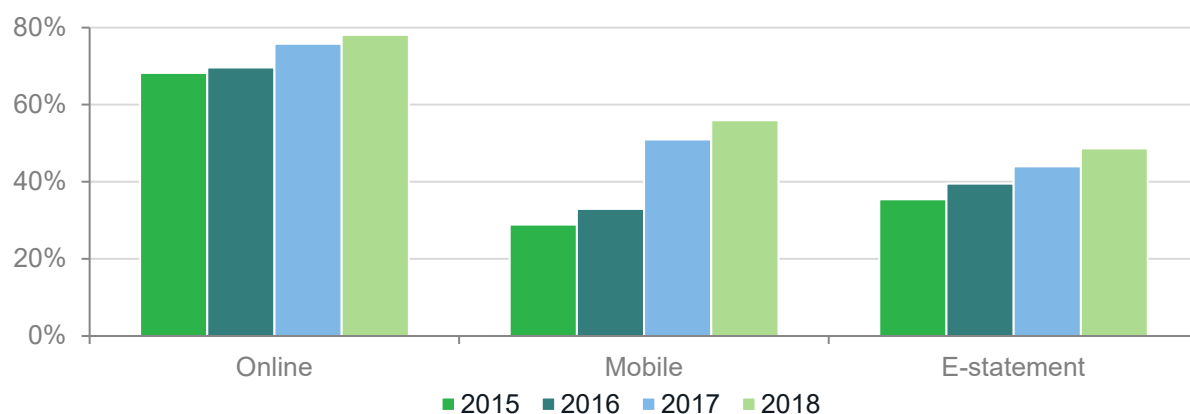
⁶³ *Id.* Citigroup Inc.'s 2018 Mobile Payment Study reported that 31 percent of people listed mobile banking apps in their top three most-used apps, behind social media (55 percent) and weather (33 percent). *See* Press Release, Citigroup Inc., *Mobile Banking one of the Top Three Most Used Apps by Americans, 2018 Citi Mobile Banking Study Reveals* (Apr. 26, 2018), available at <https://www.citigroup.com/citi/news/2018/180426a.htm>.

⁶⁴ *See, e.g.*, Citigroup Inc., *Q4 2018 Results – Earnings Call Transcript*, (Jan. 14, 2019), available at <https://seekingalpha.com/article/4233320-citigroup-inc-c-ceo-mike-corbat-q4-2018-results-earnings-call-transcript?part=single>; Synchrony Financial, *Q4 2018 Results – Earnings Call Transcript*, (Jan. 23, 2019), available at <https://seekingalpha.com/article/4235000-synchrony-financial-syf-ceo-margaret-keane-q4-2018-results-earnings-call-transcript?part=single>.

⁶⁵ A consumer may be enrolled in an online portal and may also have the mobile app. In fact, some issuers require online enrollment before mobile app use can be engaged.

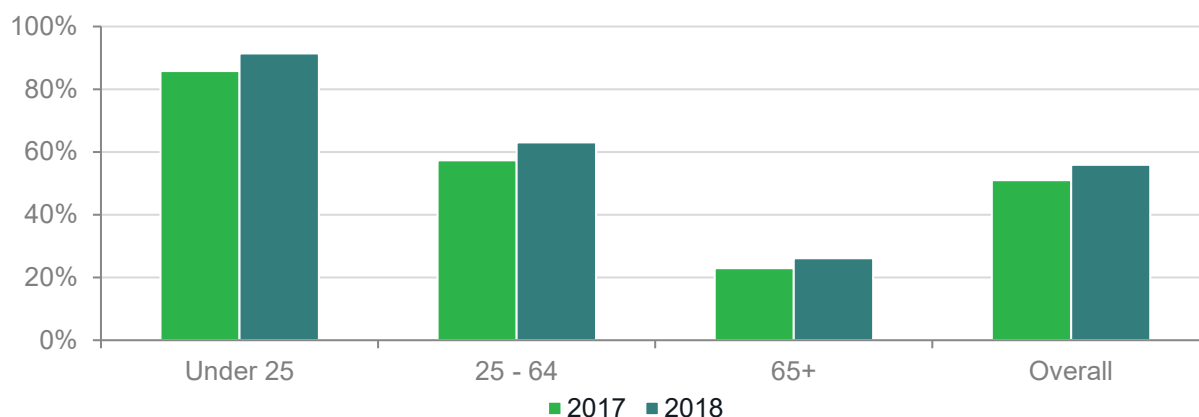
⁶⁶ 2015 Report, *supra* note 5, at 133.

Figure 20: SHARE OF ACTIVE ACCOUNTS ENROLLED IN ONLINE PORTAL, MOBILE APPS, AND RECEIVING ONLY E-STATEMENTS, GENERAL PURPOSE (MMI)



Also noteworthy is the rise in the share of accounts enrolled in mobile apps, which has nearly doubled in only three years, from 29 percent in 2015 to 56 percent in 2018. Mobile app use is more common among younger consumers, but increases in use can be seen across all age groups. In 2018, over 90 percent of active accounts held by consumers under age 25 were enrolled in the issuer’s mobile app. For consumers between the ages of 25 and 64, and over 65, mobile enrollment share was 63 percent and 26 percent, respectively. Overall, the Bureau expects the trend toward increasing mobile app usage to continue.

Figure 21: SHARE OF ACTIVE ACCOUNTS ENROLLED IN MOBILE APPS BY AGE, GENERAL PURPOSE (MMI)



The share of mass market accounts that do not receive paper statements from their issuer has risen by more than one-third over the last four years and in 2018 was nearly 50 percent. This means that paperless rates have risen faster over the last few years than digital engagement generally, with the result that the phenomenon of digitally engaged consumers choosing to

continue to receive paper statements is becoming less common over time. There are indications that this change is closely related to the increase in mobile app use, particularly by younger consumers. Although younger consumers show higher rates of paperless engagement, consumers 40 and older self-report more significant benefit from transitioning to digital billing.⁶⁷ The extent to which paperless cardholders review e-statements remains an open question.⁶⁸ Consumer Action found 61 percent of the credit card consumers they surveyed online chose paper over digital delivery.⁶⁹ Further, recipients of paper statements were more likely to report reviewing transactions than did those who receive bills electronically.⁷⁰

2.4.2 Payment methods

The most common forms of digital servicing are reviewing transaction history and making payments.⁷¹ After entering deposit account information through their card issuer's online portal or mobile app, consumers can generally authorize non-recurring "one-time" payments or recurring "automatic" payments. For a one-time payment, consumers can generally enter any payment amount and payment date they want. In some instances, there is a pre-selected default option presented, be it the full statement balance or the minimum payment. For automatic payments, all but one issuer respondent in the MMI survey allow cardholders to choose their full statement balance or their minimum payment amount. All issuers allow cardholders to choose a different, fixed payment amount rather than the full balance or minimum payment. Only one

⁶⁷ J.D. Power Satisfaction Study, *supra* note 1 (reporting that "although younger customers (under age 40) have been quicker to adopt digital billing, the effect of switching from paper to digital billing is most pronounced in the over-40 population. Among customers 40 years old and older, satisfaction increases 23 points when customers switch from a traditional paper bill to digital billing. That differential is just 1 point in the under-40 population...").

⁶⁸ See 2015 Report, *supra* note 5, at 15.

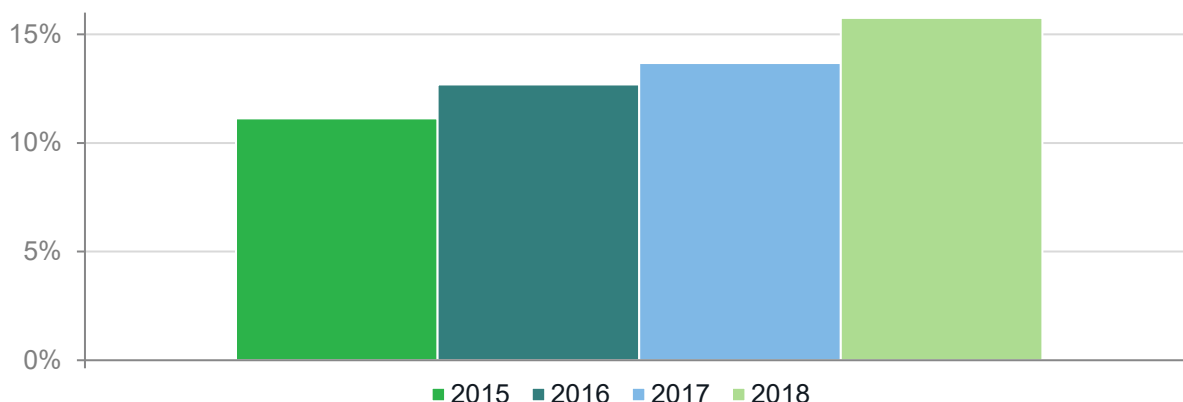
⁶⁹ Alegra Howard, *Consumer Action survey: Given the choice, consumers prefer a paper trail*, Consumer Action (Jan. 15, 2019), available at <https://www.consumer-action.org/news/articles/paper-or-digital-winter-2018-2019>.

⁷⁰ *Id.*

⁷¹ The information contained in this section does not include information outside of the servicing relationship with the issuer (*e.g.*, payments sent to the card issuer *from a third party* at the consumer's direction).

has a pre-selected default payment option, while the rest instead force the cardholder to write in an amount or select among a set of options.

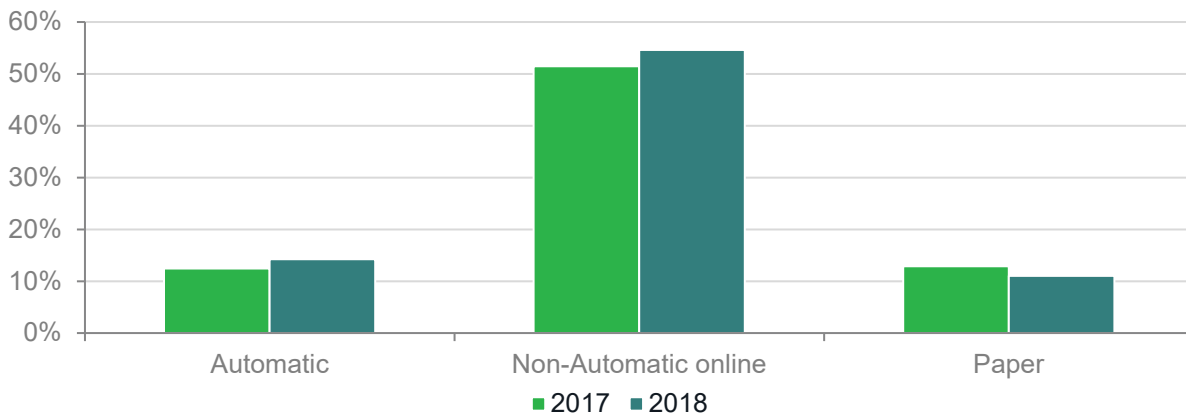
Figure 22: SHARE OF ACTIVE ACCOUNTS ENROLLED IN AUTOMATIC PAYMENTS AT YEAR-END, GENERAL PURPOSE (MMI)



As reflected in Figure 22, consumers have increasingly enrolled in automatic payments. In 2018, nearly 16 percent of active accounts within the scope of the MMI survey were enrolled in automatic payments at year-end, as compared to 11 percent in 2015.⁷² Automatic payment enrollment obviously eliminates late fee charges, but the Bureau has not attempted to quantify this impact or to determine whether non-recurring payments are also associated with lower late fee incidence rates.

⁷² Some studies have reported markedly higher consumer-reported rates of automatic payment. *See, e.g.,* Mercator Advisory Group, *U.S. Consumers and Credit: Rising Usage*, at 38 (Dec. 2018), available at <https://www.mercatoradvisorygroup.com/Reports/Consumers-and-Credit--Rising-Usage/>. It is possible that consumers who self-report overstate the extent of their use of automatic payment. Consumers may also be including *pre-authorized* one-time payments as automatic payments.

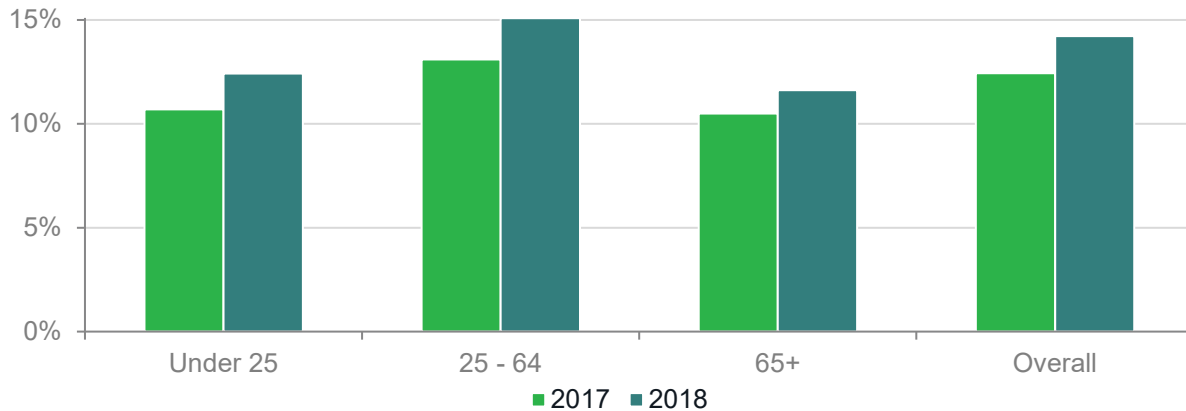
Figure 23: SHARE OF ACTIVE ACCOUNTS THAT MADE A PAYMENT IN THE LAST CYCLE OF THE YEAR BY PAYMENT METHOD, GENERAL PURPOSE (MMI)⁷³



While non-automatic online payments remain the most popular, in 2018 automatic payments surpassed paper as the second-most-common payment method. Use of automatic payments has increased across consumers in all age groups. As shown in Figure 24, the age group with the highest share of accounts making an automatic payment (at 15 percent) are cardholders aged 25 to 64. But other age groups show high rates as well, with consumers under age 25 about as likely to use automatic payments as those 65 years and older—roughly 12 percent for both groups.

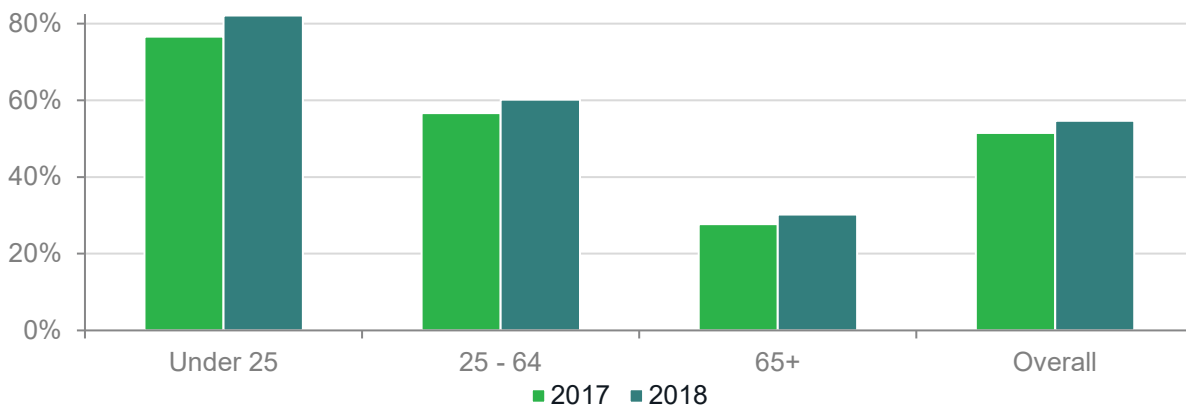
⁷³ Values do not sum to 100 percent as certain forms of payment, such as telephone and payments from a third-party, are not included.

Figure 24: SHARE OF ACTIVE PAYMENT-MAKING ACCOUNTS THAT MADE AT LEAST ONE AUTOMATIC PAYMENT IN THE LAST CYCLE OF THE YEAR VIA ONLINE PORTAL OR MOBILE APP BY AGE, GENERAL PURPOSE (MMI)



Unlike automatic payments, online but non-automatic payment usage displayed significant differences across age groups. Younger consumers were significantly more likely than other age groups to use online portals or mobile apps for this kind of payment. This likely reflects the relative share of these consumers enrolled in online and mobile servicing platforms. However, as with automatic payments, all age groups saw increased usage of these one-time digital payments in 2018.

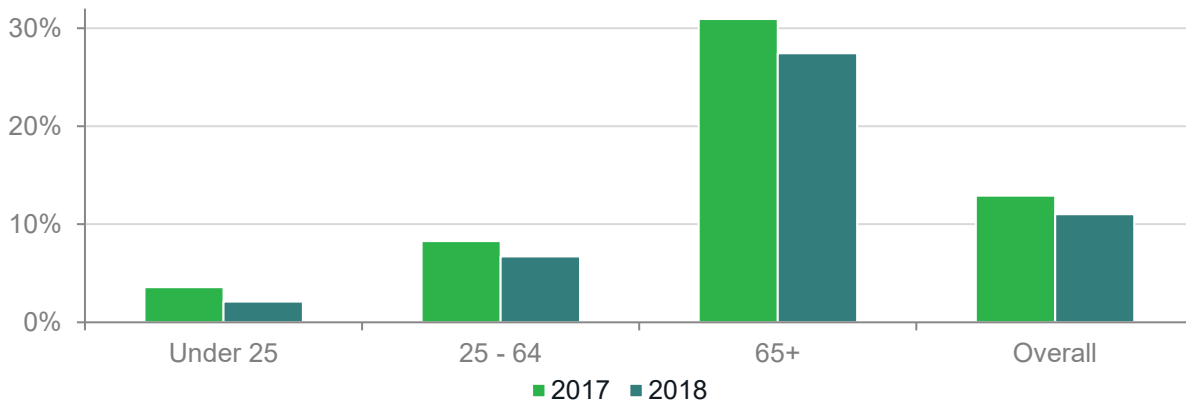
Figure 25: SHARE OF ACTIVE PAYMENT-MAKING ACCOUNTS THAT MADE AT LEAST ONE “ONE-TIME” ELECTRONIC PAYMENT IN THE LAST CYCLE OF THE YEAR VIA ONLINE PORTAL OR MOBILE APP BY AGE, GENERAL PURPOSE (MMI)



Paper-based payments remain a prominent payment method for older Americans, but that may be changing. In 2017, 31 percent of consumers 65 and older that made a payment in the final month of the year used a paper check at least once that cycle. In 2018, that figure had fallen to 27 percent. Furthermore, the difference between age groups is stark—only 2 percent of

consumers under 25 and 7 percent of consumers between the ages of 25 and 64 used a paper check to pay their credit card bill in the last payment cycle of 2018.

Figure 26: SHARE OF ACTIVE PAYMENT-MAKING ACCOUNTS THAT MADE AT LEAST ONE PAPER PAYMENT IN THE LAST CYCLE OF THE YEAR BY AGE, GENERAL PURPOSE (MMI)



3. Cost of credit

As its predecessors did, this report assesses overall costs to credit card consumers using the Bureau's total cost of credit (TCC) measure. TCC captures the totality of payments by consumers to issuers as an annualized percentage of cycle-ending balances on their accounts.⁷⁴ This section also looks separately at the main components of TCC—interest charges and fees.⁷⁵ Cardholders revolving debt from one month to the next pay the majority of fees and interest. This analysis focuses primarily (but not exclusively) on costs to revolving cardholders.

3.1 Total cost of credit

TCC on revolving accounts has increased since the Bureau's last report in 2017, driven largely by increases in interest rates. As of the end of 2018, it stood at 18.7 percent. That remains lower than its highest mark during the recession. Split by card type, TCC for revolving accounts was 17.8 percent and 23.2 percent in 2018 for general purpose and private label cards, respectively. For both general purpose and private label revolving accounts, Figures 1 and 2 show clearly that interest charges are the predominant share of consumer cost.

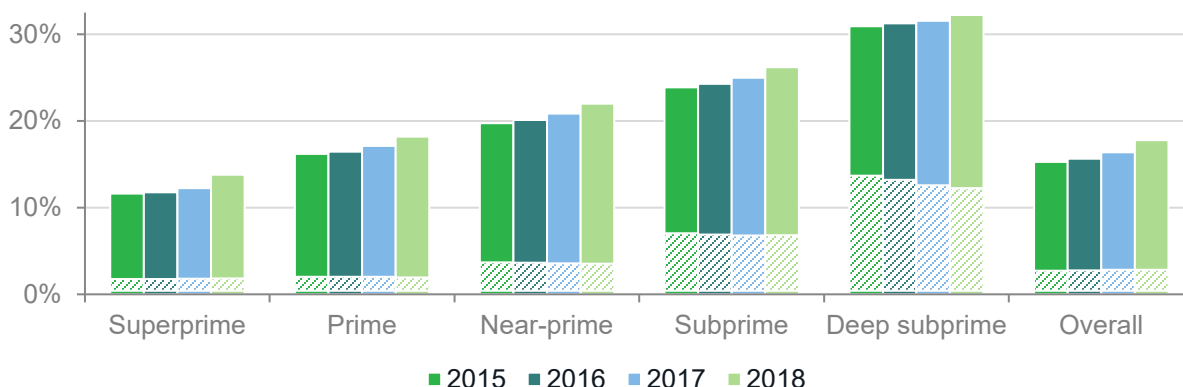
On the general purpose side, after remaining broadly stable over 2015 and 2016, TCC on revolving accounts increased in 2017 and 2018. Figure 1 shows the relevant trends. Even as TCC has been increasing, however, fee costs in every credit tier have been flat or declining. From 2015 to 2018, the prime rate has increased a total of 2 percentage points, which helps to explain

⁷⁴ Cost data are from the Y-14, augmented by summary data that the Bureau collected from a range of issuers not included in that source. Y-14 data do not permit consumer-level cost reporting. For more detail on Y-14 data, see Section 1.3.1. Although this report uses broader cost data than previous iterations did, the Bureau does not claim that these data are representative of the market not covered by the data. TCC does not include the cash value of any rewards that may have been earned by the cardholder.

⁷⁵ The TCC metric was initially introduced in the 2013 Report, and has since been used in the 2015 Report and 2017 Report. See 2013 Report, *supra* note 5, at 19; 2015 Report, *supra* note 5, at 76; 2017 Report, *supra* note 5, at 72.

part of the 2.5 percent rise in TCC, because most consumer credit cards have variable rates that are tied to changes in the prime rate.⁷⁶

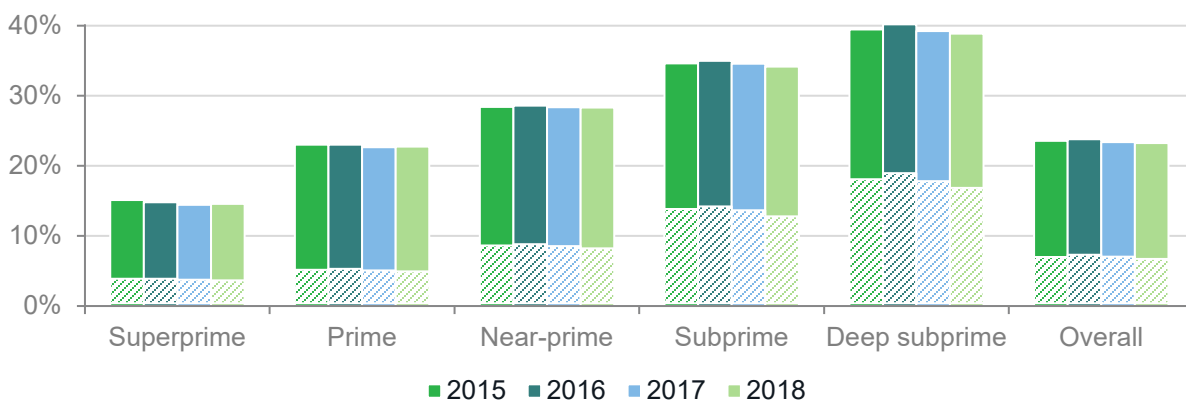
Figure 1: TOTAL COST OF CREDIT, REVOLVING ACCOUNTS, GENERAL PURPOSE (SHADED AREA REPRESENTS FEES, SOLID AREA REPRESENTS INTEREST CHARGES) (Y-14+)



On the private label side, however, TCC on revolving accounts has declined over the last two years, both overall and for every credit tier. As with general purpose cards, fee costs on private label cards have also been roughly stable on net or declining between 2015 and 2018. These trends are shown in Figure 2. Despite some narrowing over the last few years, TCC remains consistently higher, both overall, and within every credit tier, on private label accounts, as compared to general purpose accounts. In 2015, the overall gap in TCC was 8.3 percentage points between the two card types. By 2018, this had fallen to 5.5 percentage points.

⁷⁶ For further discussion of variable rates, see Section 3.2.2.

Figure 2: TOTAL COST OF CREDIT, REVOLVING ACCOUNTS, PRIVATE LABEL (SHADED AREA REPRESENTS FEES, SOLID AREA REPRESENTS INTEREST CHARGES) (Y-14+)



3.2 Interest charged

Interest charges have increased in the past few years. Both retail APRs and effective interest rates (EIR) on consumer credit cards have increased.⁷⁷ In 2018 the average APR for general purpose and private label cards rose to 20.3 percent and 26.4 percent, respectively.⁷⁸ As with TCC, the rise in interest charges is in large part the result of changes in prevailing market interest rates.⁷⁹

⁷⁷ For closed-end loan products, the APR captures certain fees as well as the interest rate. 15 U.S.C. § 1606(a)(1) (2012); 12 C.F.R. § 1026.22(b). However, for open-end credit, including credit cards, the APR is calculated using the periodic rate. 15 U.S.C. § 1637 (a)(4), (b)(5) (2012); 12 C.F.R. § 1026.2(a)(14), (21).

⁷⁸ See Appendix A, Figures 1 & 2.

⁷⁹ “Data from Form FR 2835a indicate that the average credit card interest rate across all accounts increased to a level of about 13 percent, while the two-year Treasury rate—a measure of the baseline, or “risk free,” rate—rose to almost 2 percent (figure 1), leaving the spreads unchanged.” Bd. of Govs. of the Fed. Reserve System, *Report to the Congress on the Profitability of Credit Card Operations of Depository Institutions - July 2018*, (July 2018), available at <https://www.federalreserve.gov/publications/2018-july-profitability-credit-card-operations.htm>.

3.2.1 Effective interest rates

While APR is a useful barometer of issuer pricing strategies, “effective interest rate” may provide a better measure of the cost of interest to cardholders because EIR incorporates the effect of short-term promotions and cash advances. An EIR is computed by annualizing the total of all interest charges consumers paid divided by those consumers’ cycle-ending balances.⁸⁰ Figure 3 shows that EIRs for general purpose cards with revolving balances have risen nearly 250 basis points from 13.2 percent in 2015 to 15.6 percent in 2018. Each credit tier experienced similar increases over time.

Figure 3: EFFECTIVE INTEREST RATE, REVOLVING ACCOUNTS, GENERAL PURPOSE (Y-14+)

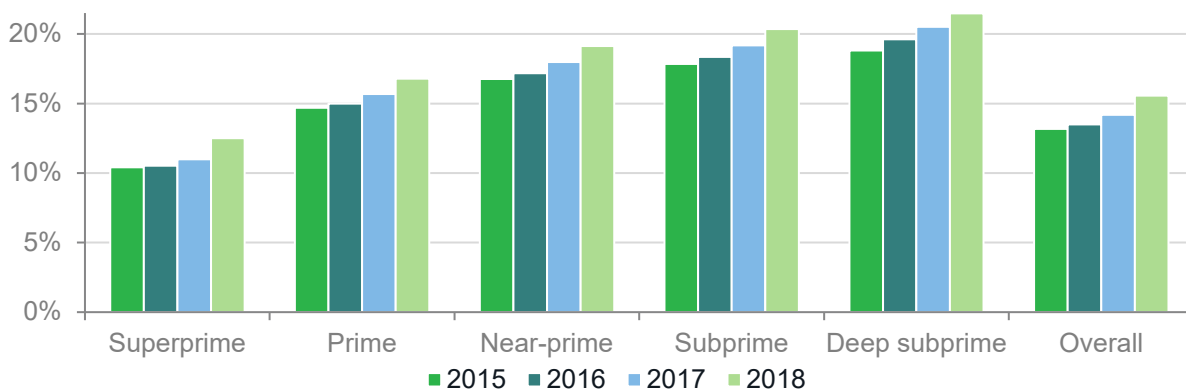
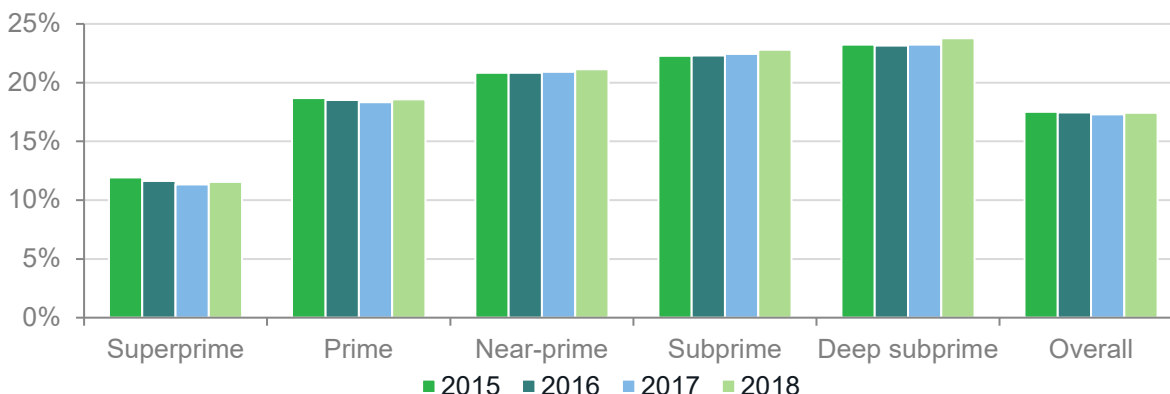


Figure 4 shows that the picture for private label is different, with EIRs across the period staying mostly flat from 2015 to 2018. As the next subsection shows, this contrast is in part due to the fact that fewer private label cards are priced with a variable rate.

⁸⁰ EIRs differ from nominal rates for two reasons. First, consumers may have various balances on a single account (such as cash advances and balance transfers), not all of which are subject to the APR typically applied to purchases on that account. Second, consumers may have different patterns of payment and spending within a cycle. Due to the average daily balance method that most credit card issuers use to calculate interest charges, this means that two accounts subject to the same retail APR that conclude a cycle with identical balances may nevertheless properly be assessed different interest charges as a result of differences in the composition and fluctuation of those balances over the course of the cycle.

Figure 4: EFFECTIVE INTEREST RATE, REVOLVING ACCOUNTS, PRIVATE LABEL (Y-14+)



3.2.2 Upward repricing

Credit card account APRs can change, both for new transactions and existing balances, subject to limitations imposed by the CARD Act.^{81,82} Perhaps most significantly, upward repricing on existing (and new) balances is allowed if a card's rate is indexed to a market rate and that rate increases.⁸³ Most general purpose cards are variable rate cards of this kind. As of the end of 2018, more than 90 percent of general purpose accounts in the Y-14 were variable rate cards.⁸⁴ In contrast, only about one-half of private label accounts in the Y-14 have variable rates.

⁸¹ The CARD Act did not prohibit all interest rate changes to existing accounts, but it limited the conditions under which issuers could reprice both new and existing balances and established new procedural steps for permitted rate increases. For more on CARD Act limits on repricing, see the 2013 Report at pages 11, 27-29.

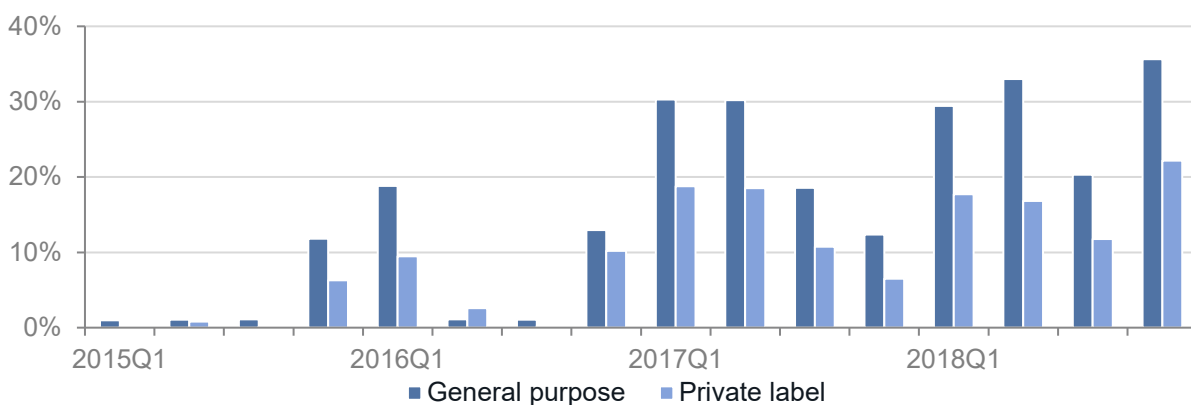
⁸² In response to the Bureau's Request for Information a commentator claimed that CARD Act-imposed interest rate restrictions have limited repricing discretion and therefore limited the availability of credit card products for cardholders outside of the prime tier. It argues that these aspects of the CARD Act have limited issuers' ability to accommodate borrowers falling outside of the prime category. See Bank Policy Institute (BPI) Comment Letter, at 2.

⁸³ A card issuer is permitted to increase the APR on a variable rate card when the increase is due to an increase in an index that is outside the issuer's control and available to the general public. 12 C.F.R. § 1026.55(b)(2).

⁸⁴ Issuers that use variable rate pricing mostly rely on *The Wall Street Journal's* U.S. prime rate. A small percentage of the accounts, however, are linked to the London interbank offered rate (LIBOR). The status of LIBOR is in flux,

As Figure 5 shows, upward APR repricing accelerated in 2017 and 2018, as variable rate increases were triggered in most quarters, and were subsequently reflected in changes to APRs for cardholders with variable rate cards.⁸⁵ Over 90 percent of the upward repricing account events shown in Figure 5 are for increases of 25 basis points, which is the most common prime rate change over the last few years. As expected, given the higher share of cards that are indexed to a variable rate, general purpose cards show a much higher rate of upwards repricing across this period than private label accounts.

Figure 5: AVERAGE MONTHLY INCIDENCE OF UPWARDS APR REPRICING, ACTIVE ACCOUNTS (Y-14+)



These changes have significantly increased consumer costs. It is difficult to assess precisely how much consumer borrowing patterns may have been affected by increases in underlying interest rates. As a result, it is difficult to state with certainty the full actual impact of such increases on borrowers. The Bureau estimates that the six rate increases by the Federal Reserve from late-

which creates certain risks for cards linked to LIBOR. One commenter states they “expect LIBOR to be unreliable (and more volatile) by January 1, 2022 (or earlier).” BPI Comment Letter, at 7-8. The Bureau acknowledges this comment and is considering the issue further.

⁸⁵ See Appendix A at Figure 3 for a chart showing increases in the federal funds rate and the associated prime rate.

2016 through late-2018 led to a cumulative increase of roughly \$11 billion that credit card borrowers paid over that two-year period.⁸⁶

3.3 Fees assessed

Collectively, fees represent just under one-fifth of total consumer costs and for consumers who exclusively transact, fees are the only source of cost. Fees take a variety of forms including annual fees, transactional fees (*e.g.*, for cash advances), and penalty fees (such as late fees or over-limit fees). The CARD Act imposed several substantive pricing controls on both the amounts of penalty fees consumers could be charged and the conditions under which such fees could be imposed.⁸⁷

3.3.1 Total fees

REVOLVING ACCOUNTS

Measured as a share of overall account balances, total fees on revolving accounts did not change materially over 2017 and 2018 on either general purpose or private label accounts. These trends are shown in Figures 6 and 7, which also show that, relative to balances, fees incurred on private label accounts that revolve are higher than on general purpose accounts that do so. For private

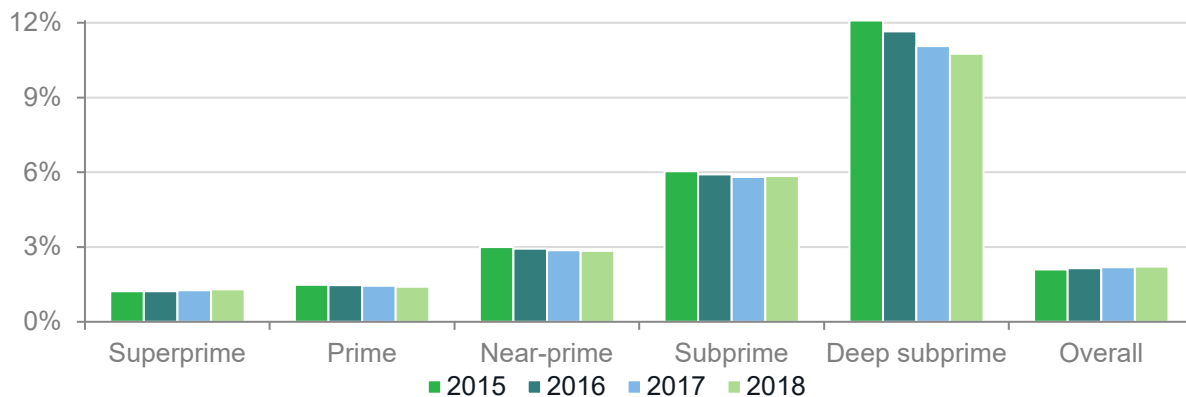
⁸⁶ Calculation uses historical quarterly balances multiplied by the cumulative changes in rates from 2016 to 2018. The increase on Dec. 20, 2018, was not included as it was not in effect for an entire quarter during the 2016 to 2018 timeframe.

⁸⁷ *See, e.g.*, 15 U.S.C. §§ 1637(k), (n), 1665d (2012). CARD Act pricing restrictions have resulted in a substantial decline in overall fee costs to consumers since the pre-CARD Act period. *See* 2013 Report, *supra* note 5, at 34. CARD Act fee restrictions, of course, may have led to compensating changes in interest rates. For example, one commenter asserts that changes brought about by the CARD Act have resulted in higher interest rate margins “as issuers sought alternative ways to manage portfolio-wide risk.” *See* ABA Comment Letter, at 2. Section 6 contains a substantive review of economic scholarship on both the direct and unintended consequences of the CARD Act on interest rate and fee changes.

label accounts, fees comprised 5.8 percent of balances as of the end of 2018; on general purpose, they were 2.2 percent of balances.⁸⁸

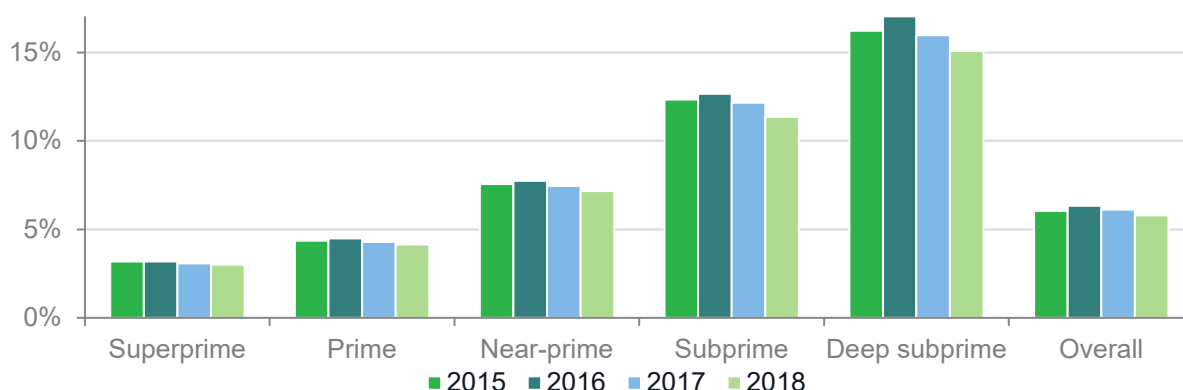
Within certain credit tiers, however, the fee picture is changing. Figure 6 shows that general purpose accounts held by consumers with deep subprime credit scores saw fee-to-balance ratios fall in every year from 2015 through 2018. Even so, these tiers have fee ratios that are several multiples of those for accounts held by consumers with higher credit scores. Figure 7 shows fee-to-balance ratios for private label accounts dropped in 2017 and 2018 for all credit score tiers except superprime. While the volume of fees has increased from 2015 to 2018, fee ratios have declined as a result of rising total balances.

Figure 6: TOTAL FEES INCURRED IN THE YEAR AS A PERCENTAGE OF AVERAGE CYCLE-ENDING BALANCES, REVOLVING ACCOUNTS, GENERAL PURPOSE (Y-14+)



⁸⁸ This is in part the product of lower average balances on private label accounts. (Section 2.2.1 contains data on average account balances for different card types, by credit tier.) The Bureau's 2017 Report contains more information on this point. *See* 2017 Report, *supra* note 5, at 87-89.

Figure 7: TOTAL FEES INCURRED IN THE YEAR AS A PERCENTAGE OF AVERAGE CYCLE-ENDING BALANCES, REVOLVING ACCOUNTS, PRIVATE LABEL (Y-14+)



TRANSACTIONING ACCOUNTS

For transacting accounts, this report calculates total fees as a share of purchase volume.⁸⁹ On this cost measure (which has not been used in prior reports), there were no significant overall changes for general purpose or private label accounts from 2015 through 2018. Fee ratios for private label transacting accounts have increased in lower credit tiers, though it should be noted that very few accounts in these tiers transact. This appears to be the result of relatively slow growth in purchase volume for transacting accounts. Purchase volume by transacting cardholders has grown 44 percent on general purpose cards since 2015, but only 3 percent on private label card accounts.

3.3.2 Fee composition

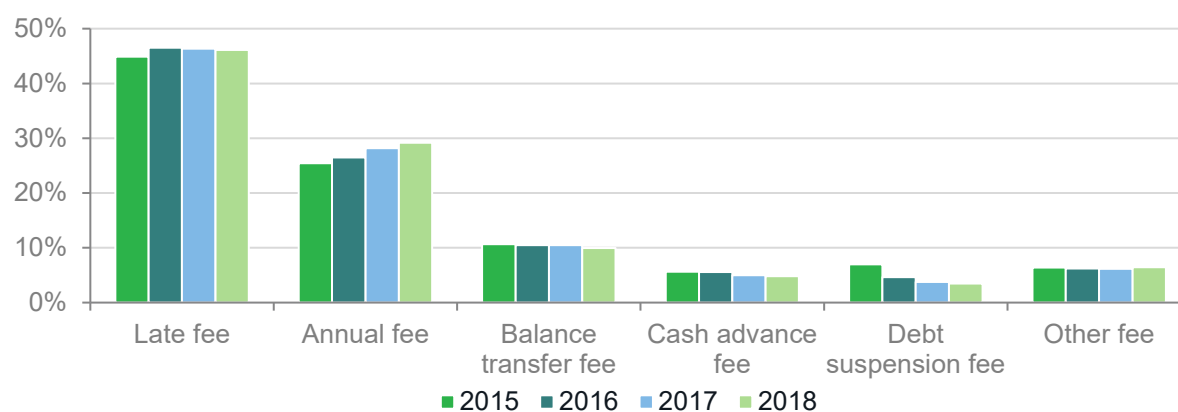
Over the last few years, fee composition has changed relatively little. Figure 8 shows trends for general purpose cards over this period. The largest change is the increase in annual fees as a share of total fees. Annual fee trends are covered in more detail in the next subsection below. This increase comes largely at the expense of debt suspension fees, which continue to decline,

⁸⁹ For transacting accounts, cycle-ending balances are not as good a reflection of account use as purchase volume. Thus, this reports looks at fee costs for these accounts relative to purchase volume, not balances.

even as the number and volume of annual fees have increased. Figure 8 also shows that a number of other fees remain prevalent on general purpose cards, including fees for balance transfers and cash advances.⁹⁰

For private label cards, late fees make up the overwhelming majority of all fees assessed—90 percent in 2018. This represents a slight increase over the last four years, from 86 percent in 2015, again in large part at the expense of debt suspension fees.

Figure 8: SHARE OF TOTAL FEES COSTS INCURRED BY TYPE OF FEE, GENERAL PURPOSE (Y-14+)



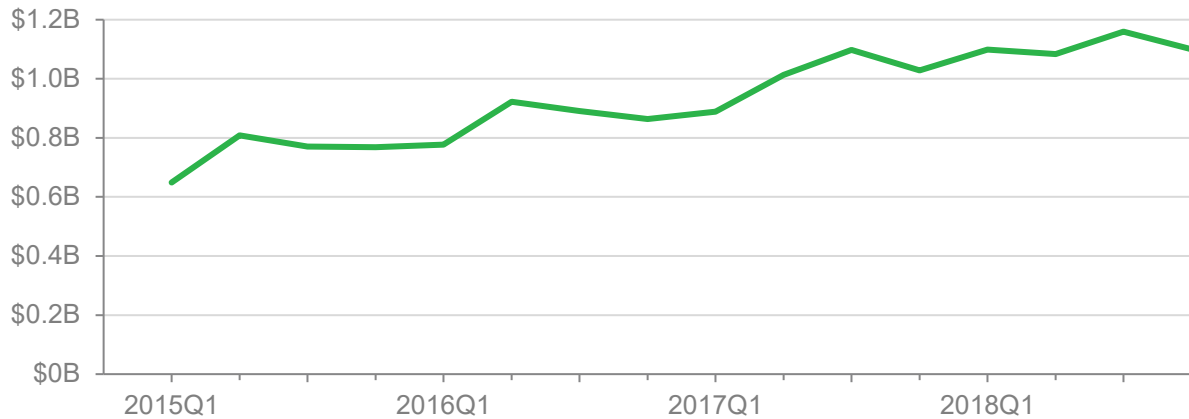
3.3.3 Annual fees

Annual fee volume has risen significantly over the last few years. For issuers in the data set, annual fee revenue totaled roughly \$600 million in the first quarter of 2015. Annual fee revenue topped \$1 billion in the first quarter of 2018.⁹¹ As discussed further below, this is a function of increases in the average annual fee for accounts charged a fee, but is also due to steady quarterly increases in the total number of accounts incurring an annual fee, even while the percentage of accounts with such fees has decreased.

⁹⁰ For more information on cash advance and balance transfer trends, see Sections 5.2 and 5.3.

⁹¹ As used in this report, an “annual fee” refers to any general purpose participation or maintenance fee assessed to the consumer as a condition of holding the account, regardless of any pattern of usage.

Figure 9: ANNUAL FEE VOLUME, GENERAL PURPOSE (Y-14+)



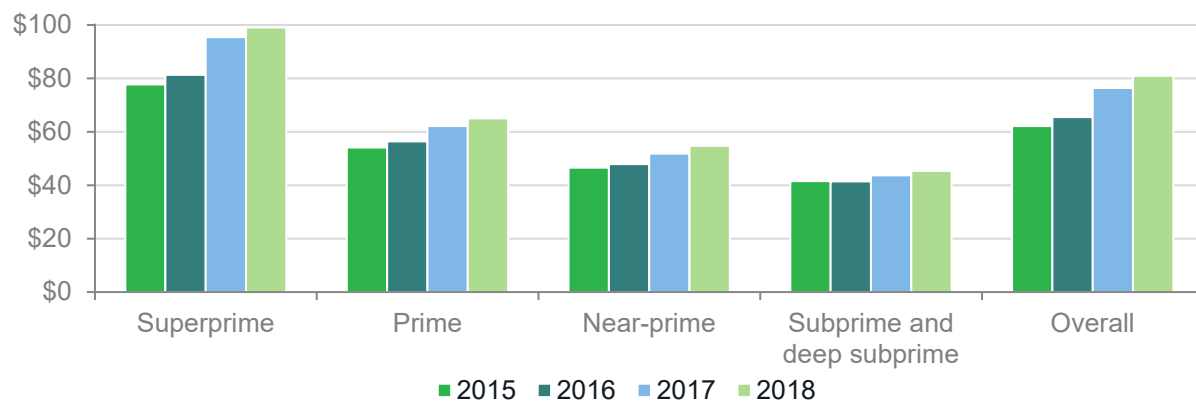
Annual fees have garnered significant attention in recent years with the introduction of new annual fee rewards cards marketed to lower-risk and affluent market segments.⁹² As shown in Figure 10, annual fees averaged roughly \$80 per card with a fee in 2018, and that number has been increasing steadily for all credit score tiers. In particular, annual fee accounts held by superprime consumers averaged nearly \$100 in annual fees in 2018, reflecting the increased prevalence in the past two years of richer rewards credit cards that carry higher annual fees. Revenue from these cards is typically returned to cardholders to varying degrees in the form of rewards.⁹³

⁹² See, e.g., Maria LaMagna, *American Express Launches a New Credit Card for Jet-Setters – With new credit card for jet-setters – with a \$450 Annual Fee*, MarketWatch, (Apr. 17, 2018), available at <https://www.marketwatch.com/story/american-express-launches-a-new-credit-card-for-jet-setters-with-a-450-annual-fee-2018-04-16>. See also AnnaMaria Andriotis & Emily Glazer, *Rewards Credit Cards Gained a Fanatic Following—Now Banks Are Pulling Back*, Wall St. J. (Jan. 1, 2019), available at <https://www.wsj.com/articles/rewards-credit-cards-gained-a-fanatic-followingnow-banks-are-pulling-back-11546365926> (“JPMorgan and Citigroup poached top executives from AmEx, which made premium rewards—with a high annual fee—its calling card for decades, and copied the strategy.”).

⁹³ For more on rewards, see Section 5.1.

Whereas cardholders with superprime scores typically pay an annual fee for rewards—with higher annual fees generally funding richer rewards—cardholders in lower credit tiers may pay annual fees to offset credit risk or higher operating costs relative to revolving balances.⁹⁴

Figure 10: AVERAGE ANNUAL FEE, GENERAL PURPOSE ACCOUNTS CHARGED AN ANNUAL FEE (Y-14)⁹⁵

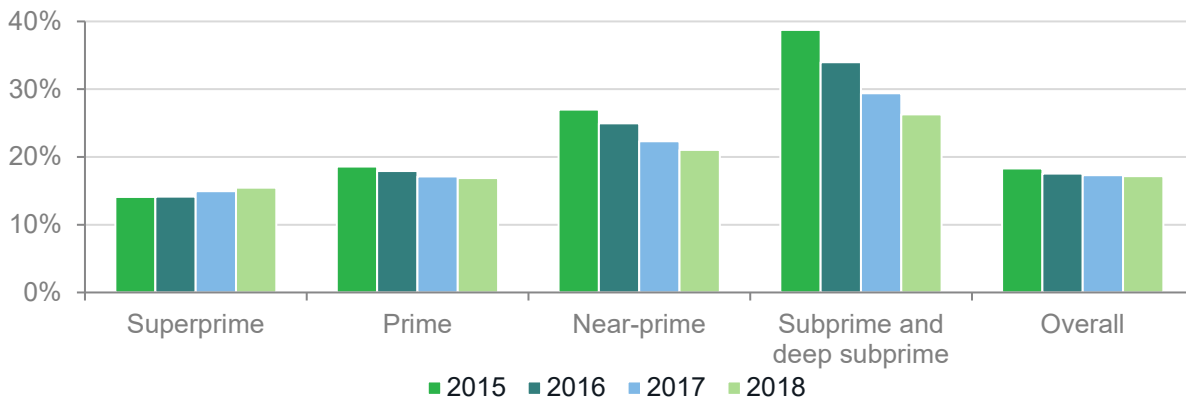


While average annual fees have been rising in all credit tiers, Figure 11 shows that annual fees have actually become less common for accounts held by cardholders in every credit tier except superprime. One in four general purpose cards held by subprime and deep subprime cardholders carried an annual fee in 2018, compared to more than one in three in 2015. Similarly, in 2018 roughly one in five near-prime cardholders carried an annual fee card, compared to one in four in 2015. In part, the reduction in annual fee prevalence for cardholders with below-prime scores was driven by an increase in the share of no-annual-fee card originations to consumers in these score tiers. Since 2016, however, most of that increase was due to originations of no-annual-fee secured cards which, while they do not charge a fee, still require some money be held as a deposit.

⁹⁴ See 2017 Report, *supra* note 5, at 91-92.

⁹⁵ Average annual fee is calculated as the total number of months in each year and credit tier that an account with an observed annual fee is open times the annual fee observed for those accounts divided by the total number of account months in each year and credit tier that those annual fee-paying accounts are open.

Figure 11: ANNUAL FEE PREVALENCE, GENERAL PURPOSE (Y-14)⁹⁶



3.3.4 Late fees

Since 2015, total late fee volume has increased, as shown in Figure 12. Issuers in the sample assessed nearly \$13 billion in late fees in 2018, compared to less than \$10 billion in 2015. As discussed further below, this increase in late fee revenue is in part a function of the increase in the total number of accounts and in part a function of increases in the per incidence fee; there does not appear to have been a change in the incidence of late fees on a per account basis. Figure 13 shows that the share of card accounts held by consumers in each credit tier declines steeply with scores, but late fee volumes are relatively similar across these tiers. Superprime consumers hold 59 percent of card accounts but pay only 21 percent of late fee volumes; by contrast, consumers with deep subprime scores hold about 6 percent of card accounts but generate 24 percent of late fee volumes.

⁹⁶ Annual fee prevalence is calculated as the total number of months in each year that an account with an observed annual fee is open in a given credit tier divided by the total number of account months in each year that all accounts held by cardholders in that credit tier are open.

Figure 12: LATE FEE VOLUME (Y-14+)

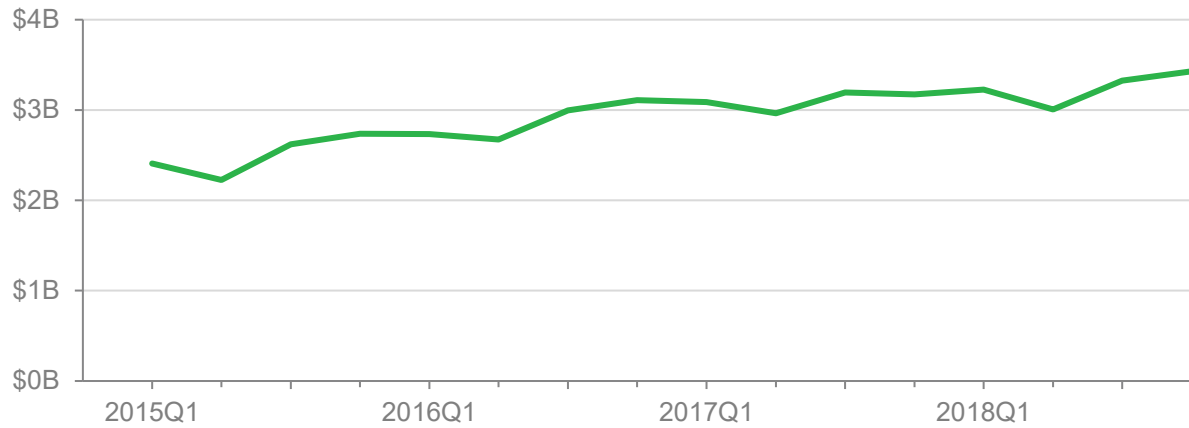
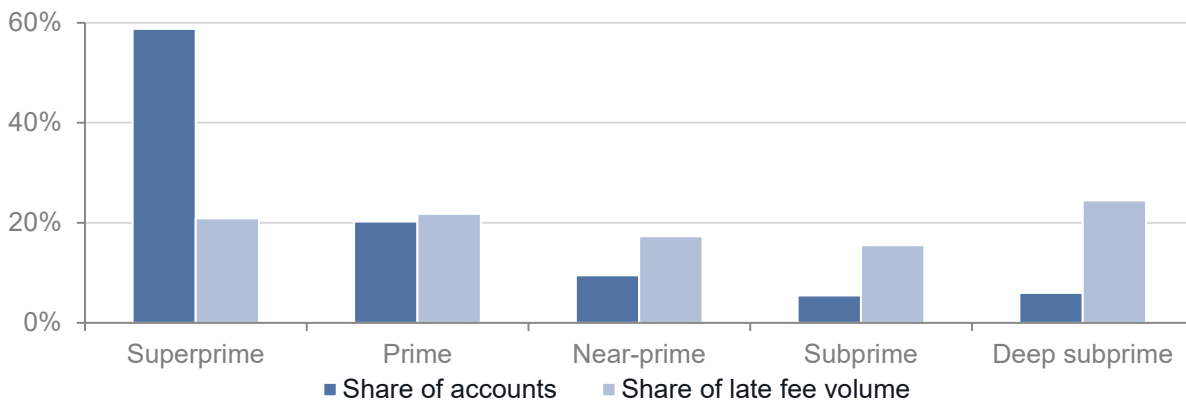


Figure 13: SHARE OF NUMBER OF ACCOUNTS AND SHARE OF LATE FEE VOLUME (Y-14+)



Issuers generally assess a late fee to consumers who do not make at least their minimum payment by the monthly due date. These and other “penalty” fees were targeted by specific CARD Act provisions, and the dollar amounts of such fees are now subject to CARD Act restrictions.⁹⁷ In general, these fees have to be “reasonable and proportional.”⁹⁸ There is a

⁹⁷ 15 U.S.C. § 1665d(a) (2012). For more on this, see Section 6.

⁹⁸ *Id.*; 12 C.F.R. § 1026.52(b).

regulatory “safe harbor” for specific fee amounts, which the Bureau adjusts for inflation annually.⁹⁹ Initially, the safe harbor was set at \$25 for an initial late fee and \$35 for a second late fee within six billing cycles of a prior late fee. In 2019, the safe harbors are \$28 and \$39 respectively.¹⁰⁰

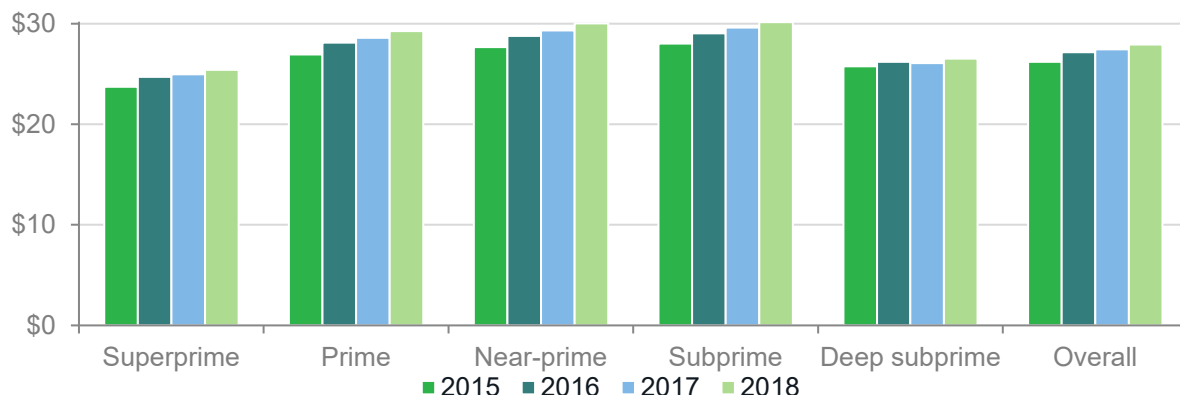
Since 2015, average late fees have increased slightly, from about \$26 to \$28 in 2018, as shown in Figure 14. They nevertheless remain substantially below their pre-CARD Act level of \$33 in 2008.¹⁰¹ Since 2014, the first year in which a change from the original penalty fee safe harbors came into effect, most large issuers have taken advantage of the increased safe harbors by increasing their fee amounts. However, issuers appear to vary in the speed and consistency with which they implement increases across their products and portfolios. Additionally, issuers may as a courtesy offer to reverse late fee charges if the cardholder has a history of paying on time, particularly for superprime cardholders. In combination with the two-tier safe harbor (one amount for the first instance, and a different amount for subsequent instances within one of the next six billing cycles), these practices make it challenging to assess what drives changes in average late fee amounts overall.

⁹⁹ Regulation Z requires the Bureau to annually adjust the safe harbors to reflect changes in the Consumer Price Index. 12 C.F.R. § 1026.52(b)(1)(ii)(D). The Bureau has also introduced a tool to promote transparency in this calculation. Bureau of Consumer Fin. Prot., Office of Compliance & Guidance, *Calculating Adjustments to the Safe Harbor Limits on Credit Card Issuer Fees*, <https://www.consumerfinance.gov/policy-compliance/guidance/truth-lending-annual-threshold-adjustments/> (last visited July 15, 2019). The most recent safe harbor amounts went into effect in January 2019. 83 Fed. Reg. 43503 (Aug. 27, 2018).

¹⁰⁰ 12 C.F.R. § 1026.52(b)(1)(ii); Comment 52(b)(1)(ii)-2.i.

¹⁰¹ See 2013 Report, *supra* note 5, at 23.

Figure 14: AVERAGE LATE FEE, NET OF REVERSALS (Y-14+)



To fill the picture out further, the Bureau analyzed the late fee terms of credit card agreements from banks included in the Y-14+ panel. A review of agreements available in 2018 indicates that almost all products (83 percent) contracted to price at the penalty fee cap. Only 16 percent of filed agreements contracted to price, in whole or in part, below that cap. Another 1 percent contracted not to charge late fees. None contracted to price above the safe harbor.

On average, consumers incur less than one late fee per year per general purpose account. This rate has remained steady since 2015. Accounts held by consumers in lower credit score tiers incur more late fees than those in higher tiers. For example, accounts held by consumers with deep subprime credit scores average more than three late fees a year. Accounts held by consumers with superprime or prime scores average less than one. Late fee incidence rates are higher for private label accounts, both overall and within every credit tier. For example, accounts held by consumers with deep subprime scores have an average of more than four late fees per year. But private label late fee incidence has also not changed materially over the last few years.

3.3.5 Other fees

The quarterly volume of other fees issuers collect on credit cards has not changed significantly in recent years. This fee category includes fees for payments returned for insufficient funds (NSF fees) or exceeding the credit limit (over-limit fees); debt suspension fees; balance transfer fees; and cash advance fees, among others. The 2015 Report showed that these fees, considered

collectively, have steadily declined in prevalence since 2008.¹⁰² Over-limit fees that were common prior to the implementation of the CARD Act remained almost nonexistent in 2017 and 2018.¹⁰³

¹⁰² 2015 Report, *supra* note 5, at 71-72.

¹⁰³ Section 3.3.5 of the 2017 Report notes that many issuers appear to have simply ceased assessing over-limit fees altogether, rather than maintain an opt-in regime. *See* 2017 Report, *supra* note 5, at 96-97.

4. Availability of credit

As in prior reports, this section examines a number of metrics relating to the availability of card credit. It explores two broad areas: first, new account origination; second, credit limits and line changes after origination.¹⁰⁴ To do so, it tracks the credit card account life cycle. It starts with marketing and consumer applications across a range of channels. Next, it addresses issuer approvals as well as new account and line origination. Finally, this section ends with issuer line management of existing accounts.

4.1 New accounts

U.S. consumers submitted more than 165 million credit card applications in 2018, roughly one-half million per day. Issuers primarily solicit consumer demand for credit cards through broad-based advertising like television commercials, and through targeted marketing, which is increasingly shifting away from direct mail towards digital channels. The analysis below examines patterns of credit card marketing and consumer shopping; consumer applications; approval rates for new accounts; and the volume of new account and line origination. Where possible, the analysis reviews how these metrics vary by credit tier as well as by product and marketing channel.

4.1.1 Marketing and comparison shopping

As consumers spend more time on mobile and other internet-connected devices, issuers have adjusted their marketing and origination practices. The result is a digital ecosystem in which

¹⁰⁴ Issuers assign a credit line limit to each new account that determines how much a consumer generally is permitted to borrow on the account, at least initially. In subsequent periods issuers may adjust the credit line, as discussed in more detail in Section 4.2.3.

consumers encounter credit card marketing across digital platforms. In-person channels—like bank branches and retail locations—increasingly use digital technology.

Credit card issuers continue to send mail directly to consumers, but the trend away from direct mail solicitation has continued since the Bureau’s last report. Issuers sent 341 million direct mail solicitations per month across 2017 and 2018, down 22 percent from 2016 levels. Monthly mail volume remains less than one-half of its pre-recession peak of 892 million pieces in 2005.¹⁰⁵ Pre-screened direct mail offers have declined even faster than direct mail generally. Their 2018 level was 20 percent below 2016 numbers. In 2018, the share of direct mail credit card solicitations that was pre-screened fell to 51.6 percent, its lowest mark since at least 2013, and down 3 percentage points since 2016.¹⁰⁶

Card issuer spending on digital forms of marketing remains small compared to physical mail, but it has been growing significantly.¹⁰⁷ Credit card advertising on social media sites, such as Twitter, Facebook, and Instagram, is becoming more prominent. Issuers increasingly buy digital advertising targeted to specific demographics and pay social media influencers to make and distribute content.¹⁰⁸

Once a consumer is actively looking for a new credit card, third-party comparison sites (TPC sites) offer information intended to make it easier for consumers to compare credit cards.¹⁰⁹

¹⁰⁵ Data made available to the Bureau by Mintel Comperemedia.

¹⁰⁶ *Id.*

¹⁰⁷ Several of the largest credit card issuers report more than doubling their paid Facebook advertising for acquisitions from 2017 to 2018, based on data provided to the Bureau by Mintel. *See also* AnnaMaria Andriotis, *Credit-Card Issuers Boost Spending on Social-Media Ads*, Wall St. J. (Apr. 23, 2019), *available at* <https://www.wsj.com/articles/credit-card-issuers-boost-spending-on-social-media-ads-11556011801>.

¹⁰⁸ *Id.*

¹⁰⁹ In response to the Bureau’s Request for Information, a commentator responding on behalf of consumers argued that these websites vary in the independence of their advice. This commenter suggested that regulators can require conspicuous disclosure of arrangements between websites and card issuers. *See* National Consumer Law Center (NCLC) Comment Letter, at 12.

Some sites let consumers personalize the card offerings shown by using data provided by the consumer or third-party information authorized by the consumer. While that information helps personalize recommendations, some consumers may ultimately find their application does not get approved for a site-listed card for which they apply. To address this issue, one TPC site now offers to check if a consumer shopping for a specific card would be pre-qualified for that card based on internal underwriting criteria that certain credit card issuers have agreed to share with the site.¹¹⁰ TPC sites are not owned or operated by issuers, but many are funded primarily by issuer payments for sourcing new card accounts.¹¹¹

4.1.2 Applications

To apply for a card, consumers submit an application through one of several channels, such as going online, using a mobile app, calling the issuer, or by walking into a bank branch or retail store to fill out a paper or digital application in-person. The issuer then decides whether or not to issue a credit card based on its internal underwriting process.¹¹² Issuers may choose to loosen or tighten underwriting standards to be more or less approving of new card applications. The Federal Reserve Board's quarterly Senior Loan Officer Survey shows that credit card underwriting standards have generally tightened over 2017 and 2018, after easing from 2012 through 2016.¹¹³

¹¹⁰ Peter Rudegeair & AnnaMaria Andriotis, *Lenders Share Their Underwriting Secrets with Credit Karma*, Wall St. J. (Oct. 22, 2018), available at <https://www.wsj.com/articles/lenders-share-their-underwriting-secrets-with-credit-karma-1549206000>.

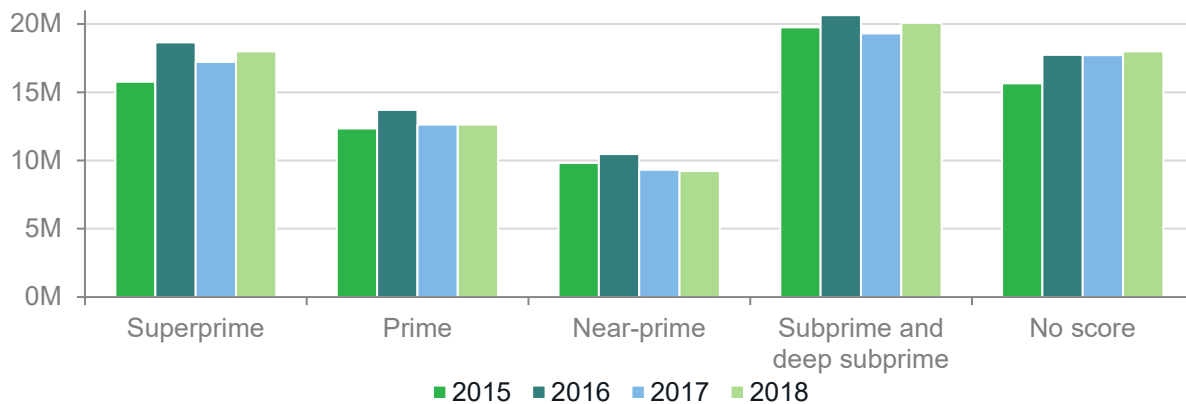
¹¹¹ For more on third-party comparison sites, see 2017 Report at page 265.

¹¹² In addition to an issuer's internal processes, issuers are required to consider an applicant's ability to pay the minimum monthly payment on an account prior to opening a credit card account under an open-end (not home-secured) consumer credit plan or increasing a credit line on such an account. 12 C.F.R. § 1026.51(a)(1)(i) (2019).

¹¹³ Bd. of Govs. of the Fed. Reserve Board, *Senior Loan Officer Opinion Survey on Bank Lending Practices* (Feb. 4, 2019), available at <https://www.federalreserve.gov/data/sloos/sloos-201901-chart-data.htm>. See also Bureau of Consumer Fin. Prot., *Credit Tightness Index*, <https://www.consumerfinance.gov/data-research/consumer-credit-trends/credit-cards/inquiry-activity/> (last visited June 13, 2019).

Figure 1 shows that general purpose application volume increased noticeably in 2016 for mass market issuers.¹¹⁴ Since then, however, applications from consumers in prime, near-prime, and subprime and deep subprime tiers have more or less returned to lower 2015 levels.¹¹⁵ Only application volume from consumers with no score remained higher than its 2016 level in 2018.

Figure 1: APPLICATION VOLUME FOR MASS MARKET ISSUERS, GENERAL PURPOSE (MMI)



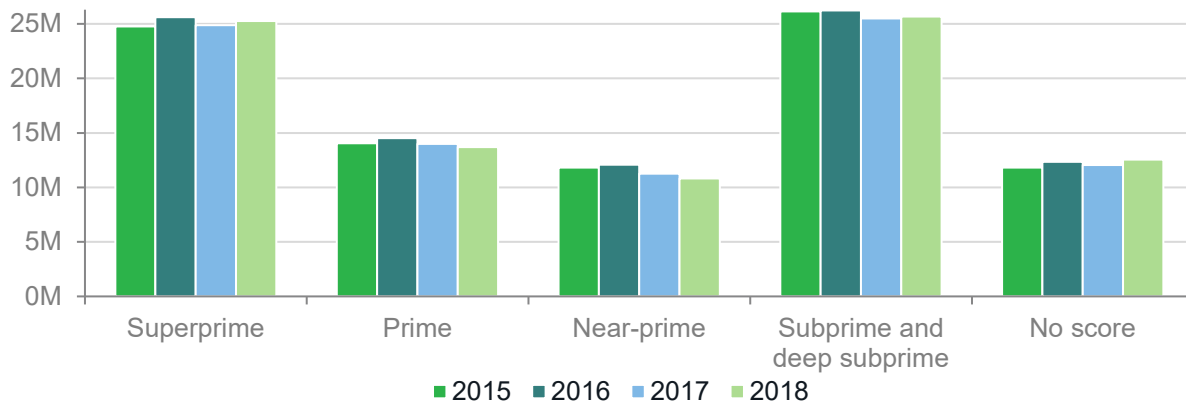
Retail cards show a similar pattern, with applications over 2017 and 2018 dropping from their 2016 peak back to 2015 levels, as shown in Figure 2.¹¹⁶ A slight majority of credit card applications in 2018 were for retail accounts both overall and in every credit score tier. Only consumers with no score submitted more general purpose than retail applications.

¹¹⁴ “MMI” data is provided by a set of larger issuers that make up the substantial majority of the credit card market. Even so, these issuers may not be representative of other issuers.

¹¹⁵ MMI data account for a smaller share of the overall market as they reach deeper into the credit spectrum. Accordingly, we have combined approval rate data in the two lowest score tiers.

¹¹⁶ Sections 4.1.2 and 4.1.3 divide the market into “general purpose” and “retail,” which is slightly different from the “general purpose” and “private label” categorization used elsewhere in the report. See Section 1.3 for more information on these differences.

Figure 2: APPLICATION VOLUME FOR MASS MARKET ISSUERS, RETAIL (MMI)

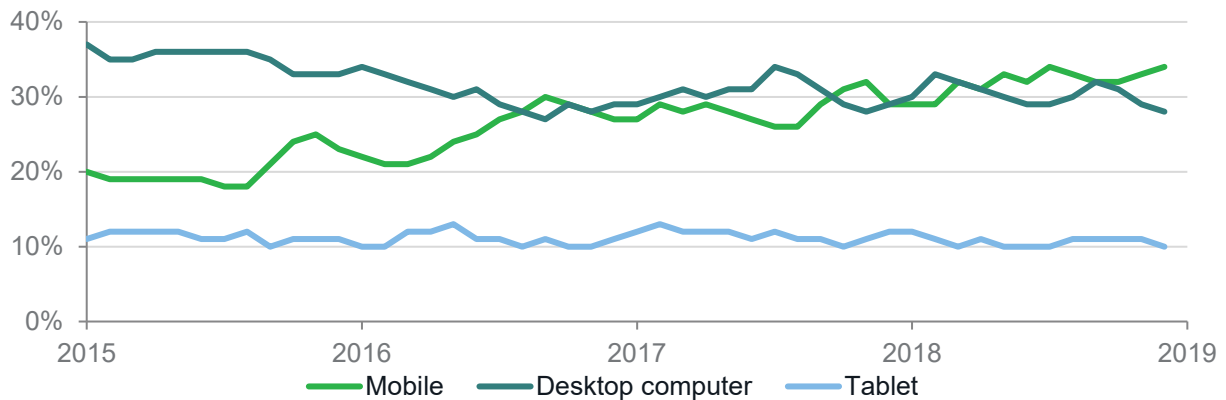


Applications can be submitted via a number of channels, though importantly there is some overlap (for example, a consumer may apply for a card digitally in response to a pre-screened offer received in the mail). In 2018, 78 percent of general purpose card applications were submitted digitally, with one-half of those coming via mobile device. In-person, mail, and pre-screen accounted, respectively, for 11 percent, 7 percent, and 8 percent of 2018 general purpose applications. In stark contrast, 62 percent of 2018 retail card applications were submitted in-person, with digital channels accounting for another 36 percent. However, digital channel volume grew 17 percent year-over-year for retail applications, driven entirely by the increase in mobile channel application volume, which was up 39 percent. Over the same period, in-person retail applications actually fell 7 percent.

DIGITAL APPLICATIONS

Digital channels account for roughly three-fourths of all applications. Although that share has not changed significantly over the last few years, Figure 3 reflects that the channel composition of digital applications has changed markedly over that period. Mintel reports that since 2014, mobile's share of all applications has grown by 14 percentage points to 34 percent, while online applications submitted via desktop computer have declined 8 percentage points to account for 28 percent of applications. Meanwhile, consumer use of tablets to apply for cards has stayed the same at around 10 percent of all applications.

Figure 3: APPLICATIONS SUBMITTED VIA DIGITAL DEVICES AS A SHARE OF APPLICATIONS (MINTEL)



MOBILE APPLICATIONS

For general purpose cards, the share of applications submitted via mobile devices has risen steadily in the last few years and in 2018 surpasses that of online applications. As shown in Figure 4, 43 percent of all general purpose mass market issuer applications are submitted by consumers using mobile devices, up from under 20 percent in 2015.¹¹⁷ That overall number conceals significant variation across credit tiers, as the mobile share of superprime applications is less than one-half of those for the lowest credit tiers. In fact, the majority of general purpose card applications by consumers with subprime and deep subprime scores now come from mobile devices. The most significant growth in mobile penetration was in 2017, especially for applicants with subprime and deep subprime scores and applicants with no credit score. That year coincided with an increased emphasis on mobile applications by several of the large bank issuers in the sample.¹¹⁸

¹¹⁷ Figures 4 through 13 rely on MMI data. The Bureau's MMI survey grouped mobile phones and tablets as "mobile devices."

¹¹⁸ For more information on digital servicing, see Section 2.4.

Figure 4: APPLICATIONS SUBMITTED VIA MOBILE DEVICES AS A SHARE OF APPLICATIONS, GENERAL PURPOSE (MMI)

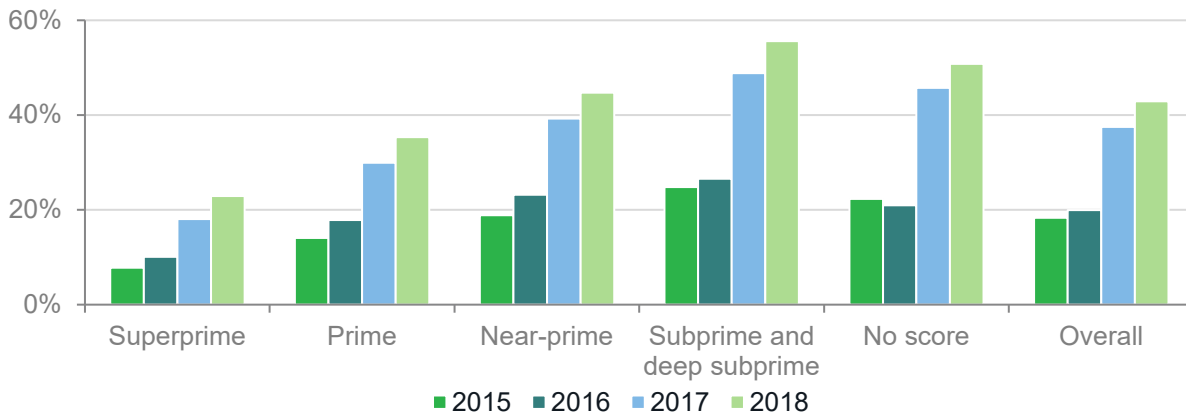
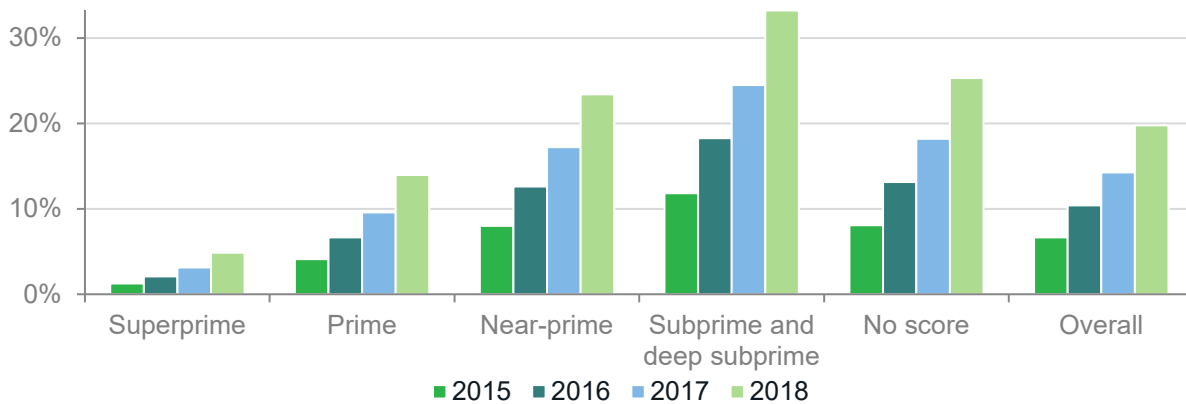


Figure 5: APPLICATIONS SUBMITTED VIA MOBILE DEVICES AS A SHARE OF APPLICATIONS, RETAIL (MMI)



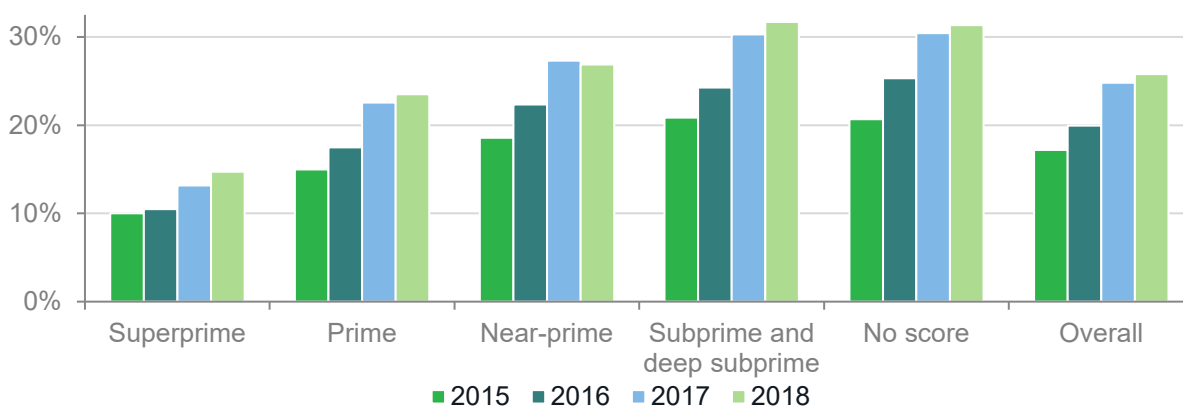
For retail cards, the trend toward mobile channels has been as significant as it has for general purpose cards. However, growth in the share of retail mobile applications has been smoother and levels of mobile penetration remain lower than for general purpose cards. As with general purpose cards, growth in mobile penetration has been most significant for consumers in lower score tiers, though no tier has yet surpassed 50 percent of applications submitted via the mobile channel. The lower penetration for retail may reflect the continued importance of the point-of-

sale channel for retail cards and the fact that some retailers may not have card application functionality for their mobile app or offer a mobile app at all.¹¹⁹

TPC SITE APPLICATIONS

TPC sites continue to account for an increasing share of general purpose applications. Figure 6 reflects that by 2018, more than one in four consumer applications for mass market general purpose cards were routed from TPC sites.¹²⁰ Consumers with lower scores were more likely to apply via a TPC site than consumers with higher scores. One explanation may be that higher score consumers receive more card offers directly, whereas consumers with lower scores are forced to seek out credit when they need it. It is also possible that consumers with lower scores are more actively seeking, via TPC sites, information that would help them find a card for which they would have a better chance of approval.

Figure 6: SHARE OF CREDIT CARD APPLICATIONS SUBMITTED VIA TPC SITES, GENERAL PURPOSE (MMI)



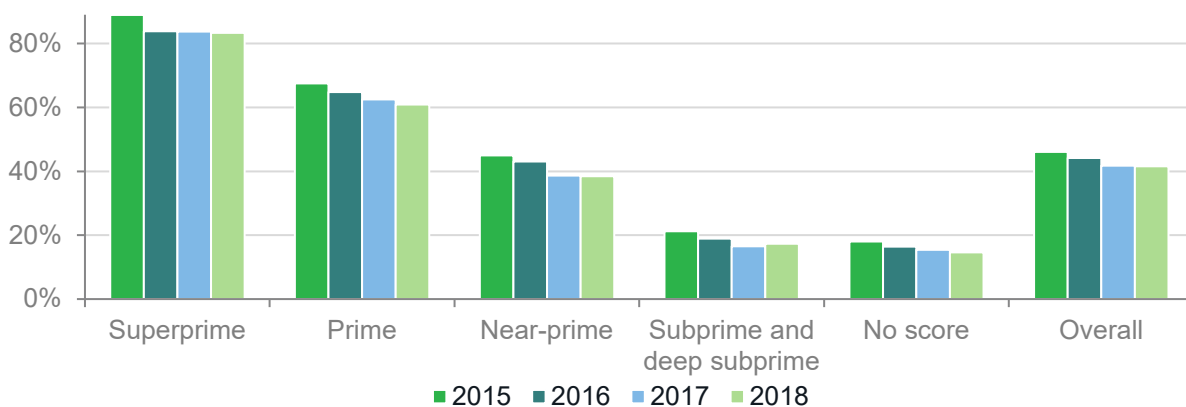
¹¹⁹ Some merchants do have apps that allow for card applications from within the app, but this remains relatively rare at this point.

¹²⁰ An additional number of consumers review TPC sites before applying directly with the issuer. Those applications are not reflected in the TPC data above.

4.1.3 Approvals

Since 2015, approval rates on general purpose cards have declined.¹²¹ As shown in Figure 7, this is true both overall and within every credit tier. For consumers with near-prime or higher credit scores, Figure 8 shows that approval rates are higher for retail cards than general purpose cards. For the lower credit tiers, however, general purpose applications have significantly higher approval rates. The same is true for applications from consumers without scores.

Figure 7: APPROVAL RATE, GENERAL PURPOSE (MMI)

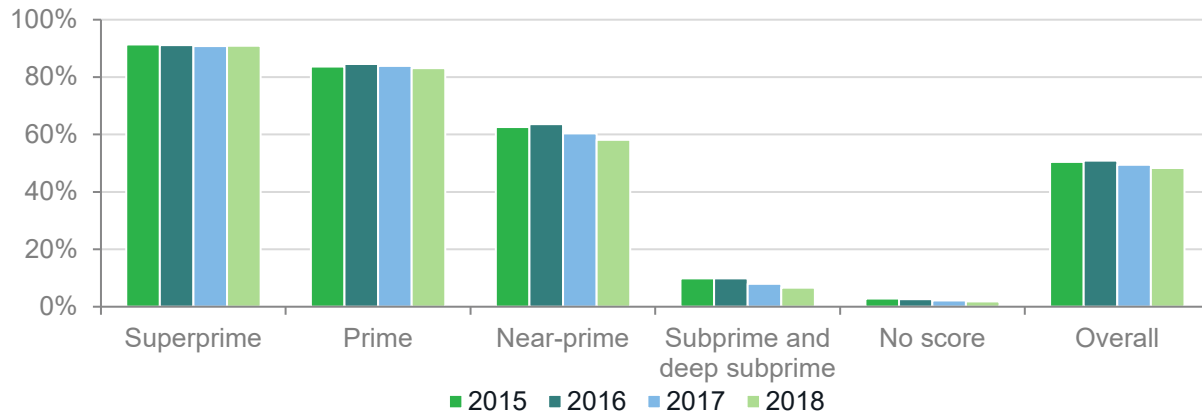


For retail card applications submitted by consumers with superprime and prime scores, approval rates remained steady in 2017 and 2018. For consumers with superprime scores, for example, the approval rate for retail card applications was more than 90 percent, unchanged since 2015. For consumers with lower scores, however, retail approval rates declined slightly. Consumers with near-prime scores experienced the largest decline, dropping from 64 percent in 2016 to 58 percent in 2018.¹²²

¹²¹ This decline is consistent with the credit tightening reported by the Board. See *infra* footnote 113.

¹²² This was in part the result of select retail card issuers tightening credit terms in the wake of elevated credit losses. The Wall Street Journal reported in late 2017 on surprising increases in delinquency at three issuers, including two “specializing in store-branded, private label cards.” Aaron Beck, *A Surprise Bump in Bad Card Loans*, Wall St. J. (Sept. 20, 2017), available at https://www.wsj.com/articles/a-surprise-bump-in-bad-card-loans-1505899800?mod=article_inline.

Figure 8: APPROVAL RATE, RETAIL (MMI)



As shown in Figures 9 and 10, approval rates vary substantially by application channel. For general purpose card applicants in the higher credit tiers, the highest approval rates are for applications based on pre-screened solicitations. Mail and in-person channels also have high approval rates in these higher tiers, perhaps due to the prevalence of pre-screen offers in these channels. In the lower score tiers, mail becomes the highest approval rate channel for general purpose cards, while pre-screen becomes the highest approval rate channel for retail cards.

Interestingly, TPC site approval rates are the second highest for consumers with the lowest scores; even for near-prime applications, they have the highest approval rates of any digital channel. Applications from consumers with no score fare best when submitted in person, perhaps because of the risk of synthetic fraud in other channels.¹²³

¹²³ Synthetic fraud is where someone illegally applies for a credit card using a “synthetic” identity constructed from pieces of legitimate consumer data, then uses that card to extract monetary value from credit card issuers. For more information, see Section 8.3.2.

Figure 9: APPROVAL RATE BY CHANNEL, GENERAL PURPOSE, 2018 (MMI)

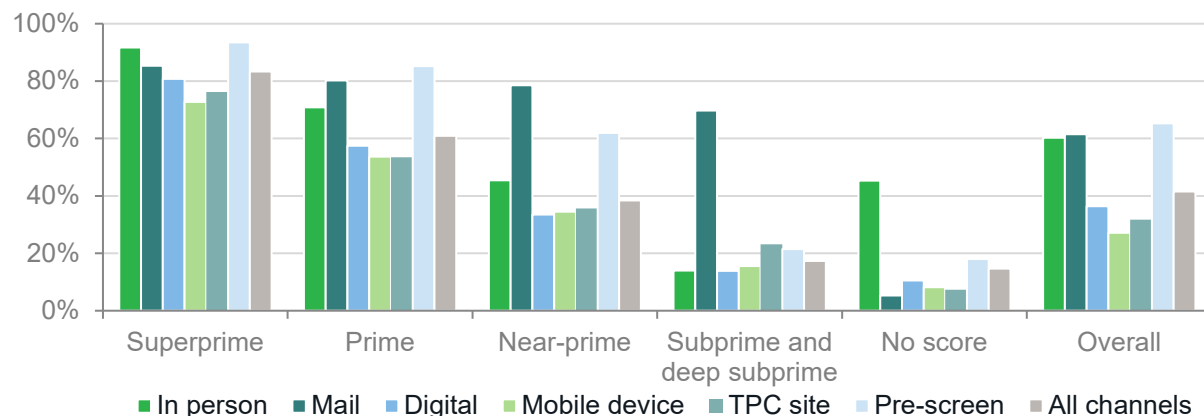
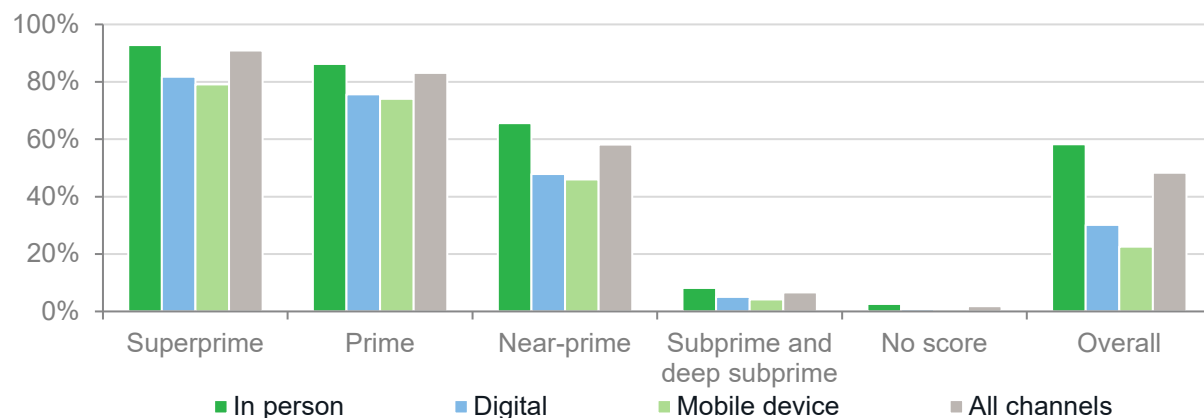


Figure 10: APPROVAL RATE BY CHANNEL, RETAIL, 2018 (MMI)¹²⁴



MOBILE APPROVALS

As discussed above, mobile applications grew significantly for both general purpose and retail cards across all credit score tiers between 2015 and 2018. Approval rate trends associated with those applications are less uniform. As a comparison of Figures 11 and 12 shows, mobile approval rates for general purpose card applications submitted by consumers with superprime, prime and near-prime scores all decreased from 2015 to 2018. In the lower credit tiers, they

¹²⁴ Retail card applications submitted in response to direct mail or pre-screened offers did not show sufficient volume to depict in this figure.

were steadier, and consumers with no score even saw marginal increases in each year from 2015 through 2018. On the retail side, by contrast, approval rates for applications submitted from a mobile device increased across this period for consumers in higher credit tiers and decreased for consumers in lower tiers. Overall, as Figures 9 and 10 reflect, mobile has the lowest approval rate of any channel for both card types, although it runs close to digital and sometimes TPC site approval rates for most credit tiers. Except in the subprime and deep subprime and no score tiers, mobile approval rates remain higher for retail than for general purpose card applications.

Figure 11: APPROVAL RATE FOR APPLICATIONS SUBMITTED VIA MOBILE DEVICES, GENERAL PURPOSE, 2018 (MMI)

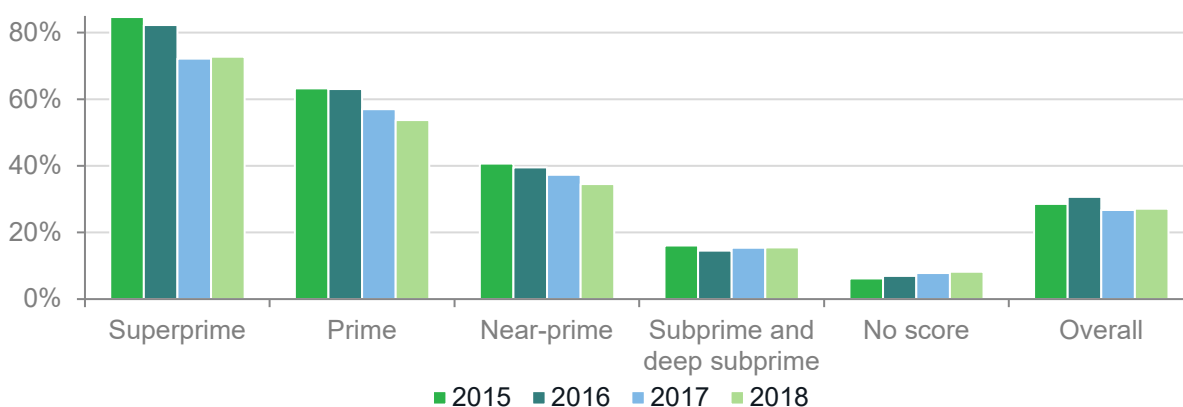
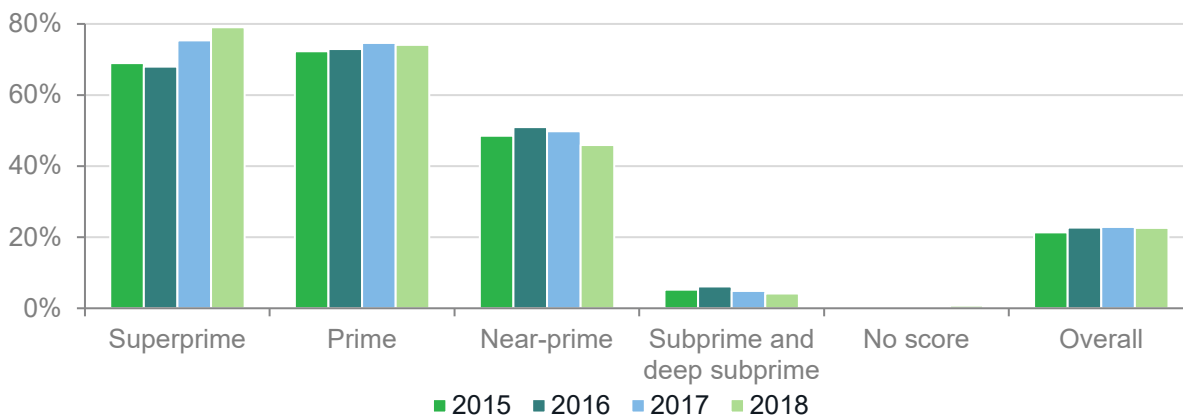


Figure 12: APPROVAL RATE FOR APPLICATIONS SUBMITTED VIA MOBILE DEVICES, RETAIL, 2018 (MMI)



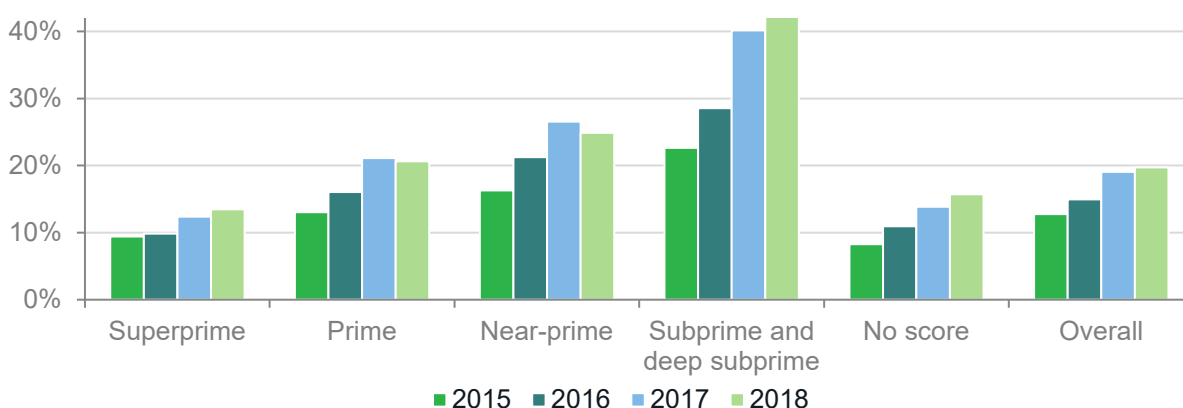
TPC SITE APPROVALS

Despite the relatively high level of TPC site channel approvals in lower tiers, the approval rate for TPC site channel approvals overall is 32 percent, which lags the general approval rate for all

applications by about 10 percent. One possible explanation may be the credit-seeking nature of the consumers who visit those sites. If TPC site innovations help consumers align more closely with cards for which they will qualify the approval rates for this channel may increase.

TPC sites directly facilitated more than 6 million mass market approvals in 2018, up 48 percent since 2015. In 2015, TPC sites were responsible for one in every eight approved applications for general purpose cards, but by 2018 that reached one in five. That approval share growth was particularly strong for the subprime and deep subprime combined credit tier; TPC sites facilitated over 40 percent of approved applications in that tier in 2017 and 2018.

Figure 13: SHARE OF CREDIT CARD APPROVALS FACILITATED BY TPC SITES, GENERAL PURPOSE (MMI)



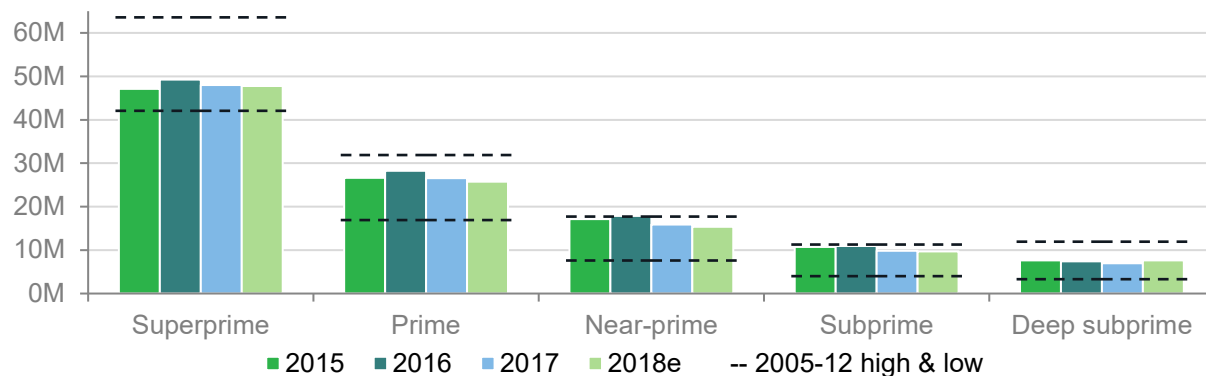
4.1.4 Account origination

In 2018, consumers opened roughly 106 million new credit card accounts.¹²⁵ As Figure 14 shows, that is significantly lower for every credit tier than the highs seen before the recession. It is also somewhat lower than the post-recession high reached overall and by every credit tier in 2016. Only near-prime consumers have re-attained pre-recession levels of account origination, and then only in 2016. Originations remain well above levels seen during the recession for all credit

¹²⁵ The data source used in this subsection is the CCP, which offers a broader view of the market but does not allow the Bureau to identify all “retail” cards. As a result, this subsection uses “private label” as it does in other sections that reference the CCP. See Section 1.3 for more on the data sources used in this report.

tiers, however, consumers with superprime scores have stayed closer to their recession-era low than consumers in any other tier.

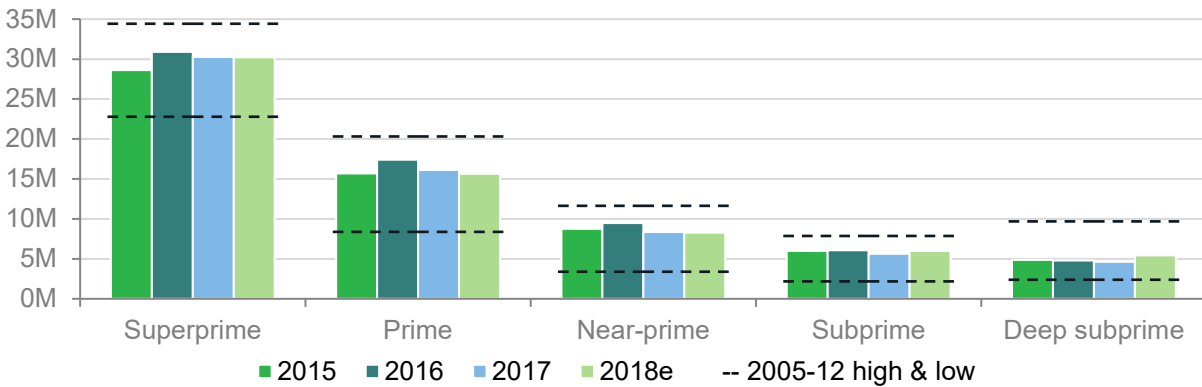
Figure 14: ANNUAL NEW ACCOUNT VOLUME (CCP)¹²⁶



General purpose origination trends are very similar. Figure 15 shows the same slight decline in account growth since 2016 highs and most tiers show origination levels well above levels seen during the recession. Superprime consumers have moved closer to their pre-recession high level of general purpose origination than they have for originations overall. Conversely, consumers in the lower credit tiers have stayed closer to their recession low levels of general purpose origination than they have for originations overall. Roughly 65 million general purpose cards were opened in 2018. About 30 million were issued to consumers with superprime credit scores, 16 million to prime, eight million to near-prime, six million to subprime, and five million to consumers with deep subprime scores.

¹²⁶ The CCP, the data source used in this subsection, consists of credit records. Because new accounts may be reported to NCRAs with some delay, the data may not immediately reflect new accounts. As a result, an estimate is used for the final months of 2018, as denoted by the legend entry “2018e” where appropriate.

Figure 15: ANNUAL NEW ACCOUNT VOLUME, GENERAL PURPOSE (CCP)



Private label origination trends are quite different from the trends for general purpose cards and overall for all but prime cardholders. Figure 16 shows that, in lower credit tiers, originations exceed pre-recession levels, despite some fall-off since 2016. Originations to consumers with superprime scores remain below their recession levels.

Figure 16: ANNUAL NEW ACCOUNT VOLUME, PRIVATE LABEL (CCP)

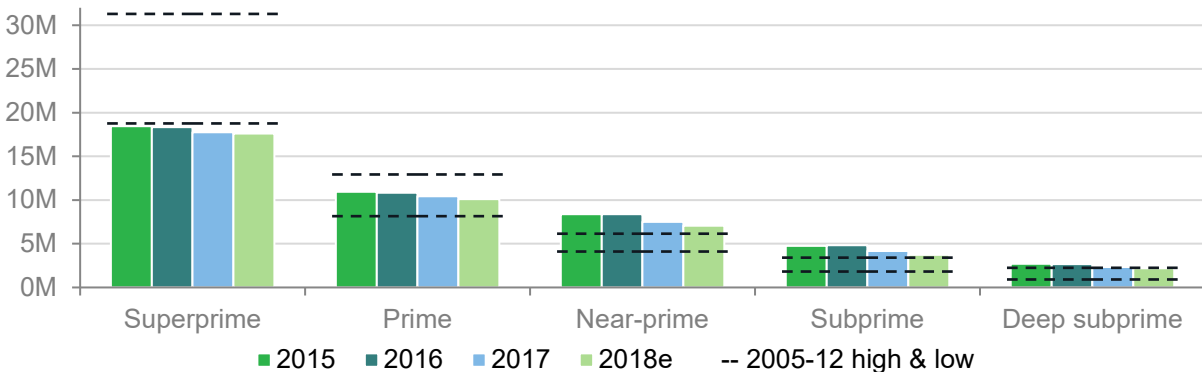
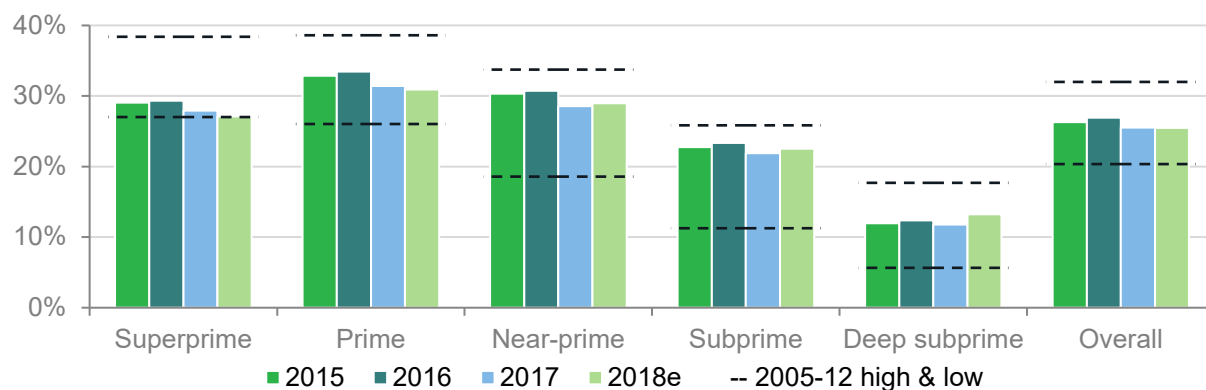


Figure 17 shows that the overall share of consumers originating cards annually has declined since 2016. In 2018, 25 percent of consumers in the CCP originated a credit card, compared to 27 percent in 2016. For superprime, this share is as low as recession levels. The share is highest for consumers with prime scores, followed by those with near-prime scores. Consumers with deep subprime scores originated at a substantially lower rate than other consumers with scores, but deep subprime is the only tier to see growth since 2016 in the share of consumers opening a new card in a given year.

Figure 17: ANNUAL SHARE OF CONSUMERS WITH A CREDIT RECORD ORIGINATING A CREDIT CARD (CCP)¹²⁷

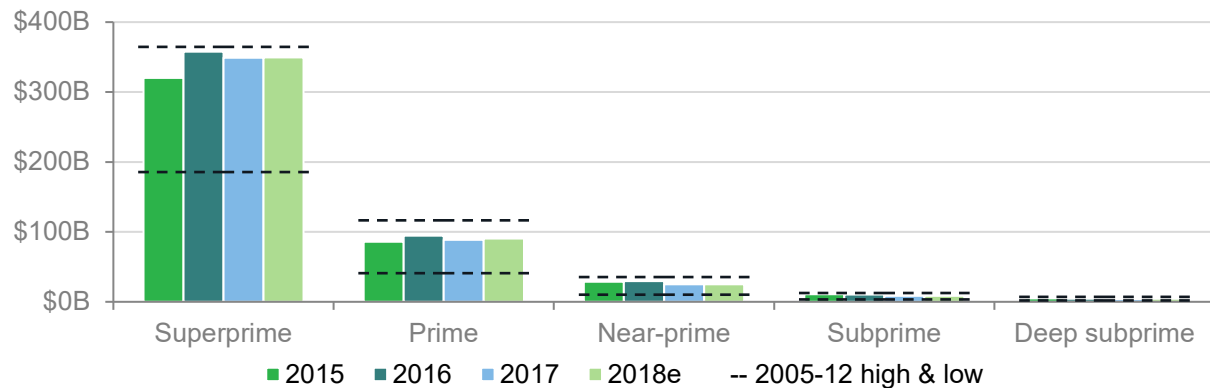


4.1.5 New account credit line

Total credit line on new accounts, both overall and within every credit tier, is down from its 2016 high point. After five years of growth from its recession low in 2010, total new line neared \$500 billion in 2016, which was still below its 2007 high of \$536 billion. It has since leveled off at roughly \$475 billion in 2017 and 2018. Although all credit tiers have seen growth in new line since 2010, Figure 18 reflects that the total remains below pre-recession highs in all tiers.

¹²⁷ Methodology has been refined in this Report to better account for cardholders with a record but no score and become scored or cardholders that move between score tiers during the year. Results from the Bureau's 2017 Report stated that the share of subprime consumers originating a card exceeded superprime from 2014 to 2016, in a reversal of historic trends. Under the new methodology, the Bureau notes no such reversal.

Figure 18: ANNUAL INITIAL CREDIT LINE ORIGINATED (CCP)

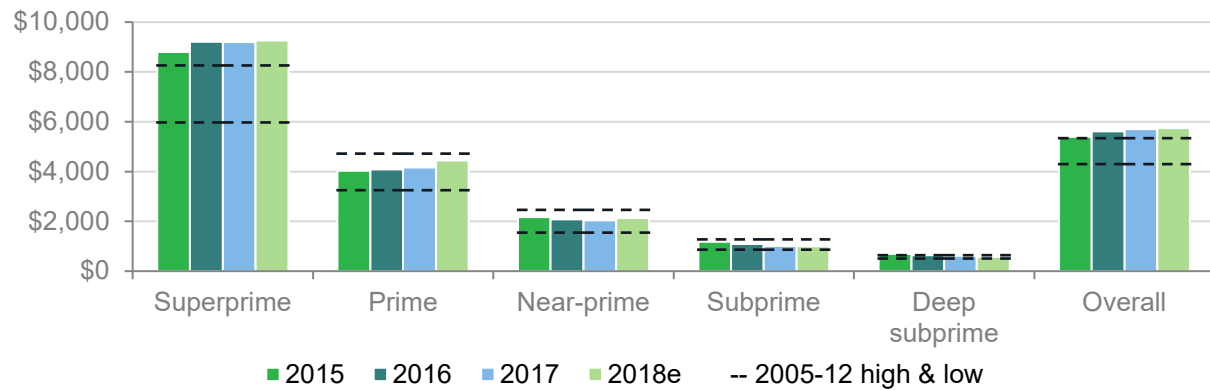


GENERAL PURPOSE

New general purpose account line represented just under four-fifths of all new line in 2018. Unsurprisingly, therefore, it shows similar trends to overall new line, hitting a post-recession high in 2016, then falling back marginally, both overall and across every credit tier. The majority of the growth in initial general purpose line since its low point during the recession has been in superprime accounts. Total new general purpose credit account line reached its highest level in 2016, surpassing its pre-recession high, but has since slipped back below that level. So far, superprime is the only tier to reach pre-recession levels of new line.

In overall terms, *average* credit line on new general purpose accounts has remained relatively steady over the last few years. That overall trend, however, masks a number of differences across credit tiers, as reflected in Figure 19. Consumers with subprime and deep subprime scores have seen average new line per general purpose account decline every year since 2015. The average new general purpose card issued to a deep subprime consumer had an initial line of \$576 in 2018, down 17 percent since 2015. Consumers with prime and superprime scores have experienced the opposite trend. Initial line for prime cardholders, for example, was \$4,440 in 2018, up 10 percent since 2015. Superprime consumers in 2018 had average initial general purpose lines above pre-recession levels. That has driven the overall average above pre-recession levels as well. Deep subprime is the only other tier to have reached pre-recession levels of average new general purpose line, a result that has not been sustained over the last two years.

Figure 19: AVERAGE CREDIT LINE ON NEW ACCOUNTS, GENERAL PURPOSE (CCP)

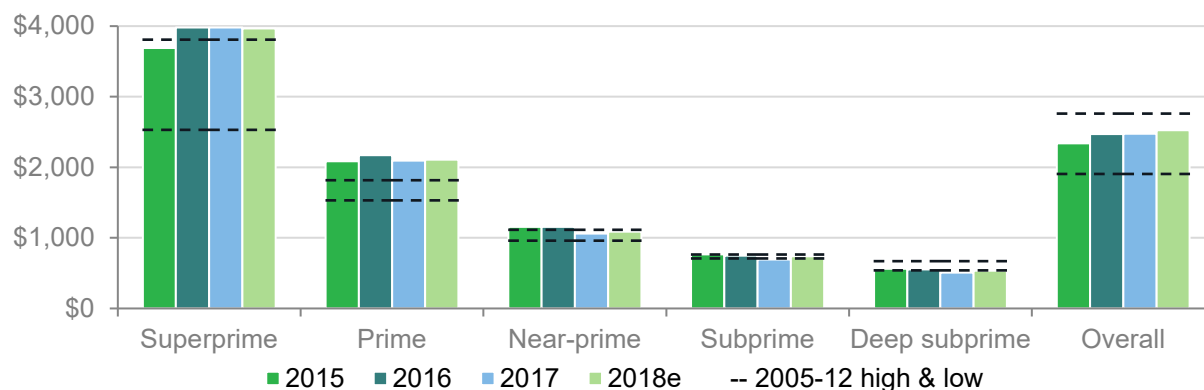


PRIVATE LABEL

Once again, private label accounts show a different picture. Their highest annual level of new line came in 2005, well before the recession. Their post-recession high came in 2016, but at a level significantly below that 2005 high. That difference was mostly the result of a decline in aggregate line issued to superprime cardholders. The prime, near-prime, and subprime tiers recovered pre-recession levels of aggregate line relatively rapidly after the recession, and remain above their pre-recession levels even after some fall-off in total line levels since 2016.

As Figure 20 shows, average new line on private label cards has continued to increase slightly and reached \$2,525 in 2018. This increase reflects compositional change because average line in each credit tier has been flat or declining since 2016. In contrast to general purpose line averages, overall average for new private label line remained below pre-recession levels. Average line has been above pre-recession levels in both the subprime and prime tiers in 2017 and 2018.

Figure 20: AVERAGE CREDIT LINE ON NEW ACCOUNTS, PRIVATE LABEL (CCP)



4.2 Existing accounts

Total credit line across all consumer credit cards surpassed \$4 trillion in 2017 for the first time since the onset of the recession. In 2018, it reached \$4.3 trillion, which was almost equal to its pre-recession high. Despite this overall picture of increasing credit availability, most of that is accounted for by *unused* line on accounts held by consumers with superprime scores. There are indications that issuers are becoming more active in altering line allocations to control risk in lower credit tiers.¹²⁸ The present subsection examines this issue in more detail by looking at a range of account-level and cardholder-level metrics on existing accounts for each score tier and card type.

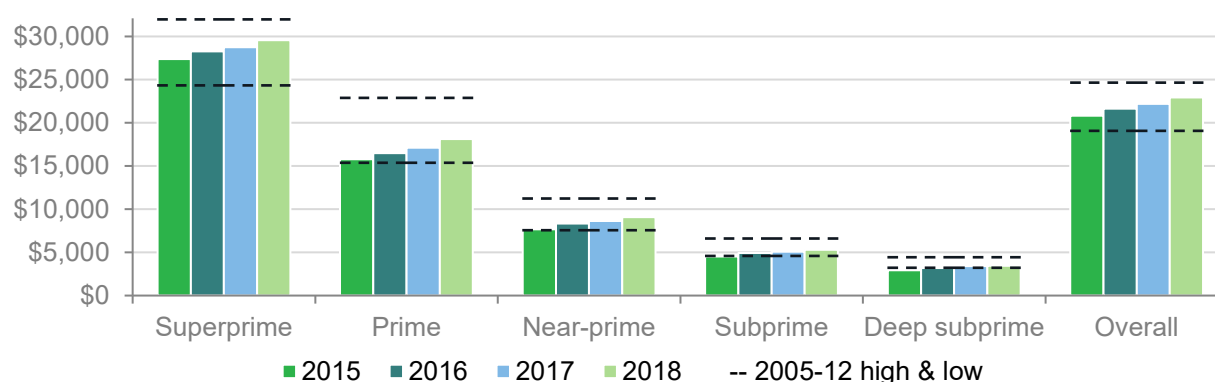
4.2.1 Average credit line

In 2018, after a series of steady increases, average general purpose credit line *per account* exceeded its pre-recession high to reach more than \$8,200. These increases were almost entirely driven by increases on superprime accounts. Despite recent growth across all tiers, no other credit tier has an average line exceeding its pre-recession level. In fact, other credit tiers recorded average line lows in 2014 and 2015, and have only recently exceeded the levels reached

¹²⁸ Unused line on superprime accounts totaled more than \$3 trillion in 2018. Almost all of that was on general purpose cards.

in the immediate aftermath of the recession. Average general purpose line *per cardholder* tells a broadly similar story of recent growth, but as Figure 21 shows, this metric remains below pre-recession high levels, both overall and for every credit tier.

Figure 21: AVERAGE CREDIT LINE PER CARDHOLDER, GENERAL PURPOSE (CCP)



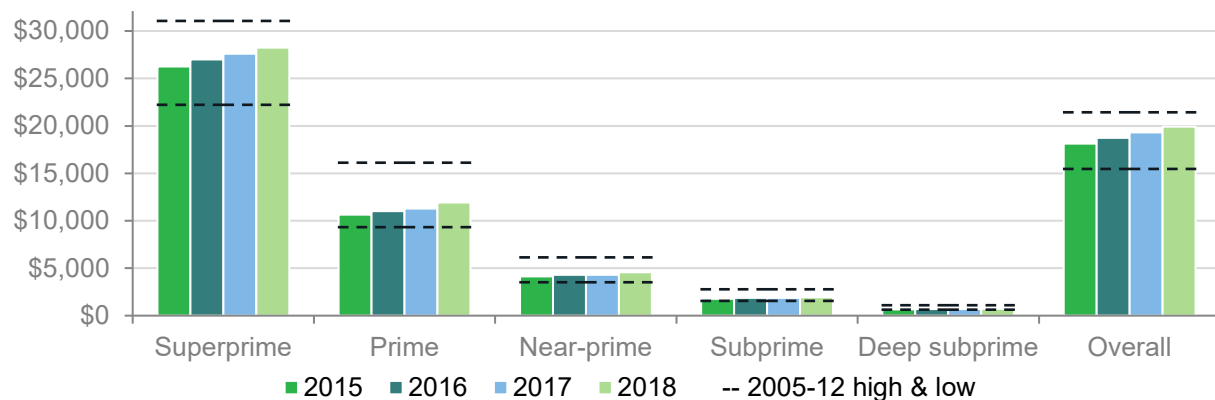
The private label picture is very different. At the account level, average line rebounded very quickly post-recession and as of 2018 significantly exceeds pre-recession levels both overall and for most credit tiers. The average private label card has one-third more line now than in 2008. Accounts held by consumers in lower credit tiers show slower growth over the same period, but no tier remains below its pre-recession high. At the cardholder level, growth has been more marked. Average private label line hit a post-recession low in 2011, but has since rebounded in every tier, and overall, by 59 percent or more.

4.2.2 Utilization

As average line per cardholder has increased, so has average *unused* line per cardholder. That is true for the market overall, as well as for general purpose and private label viewed separately. Superprime consumers account for almost all unused line. In 2018, the average cardholder with a superprime score had over \$32,000 in credit line across both card types, but more than

\$28,000 of that was unused.¹²⁹ Average unused line is significantly lower for other credit tiers, as Figure 22 reflects, but has been increasing in recent years. Since 2015, average unused line per cardholder has risen between 8 percent and 12 percent for cardholders in score tiers below superprime. Even so, it remains significantly below pre-recession high levels in every credit tier, and in the lowest two tiers it remains relatively close to post-recession lows.

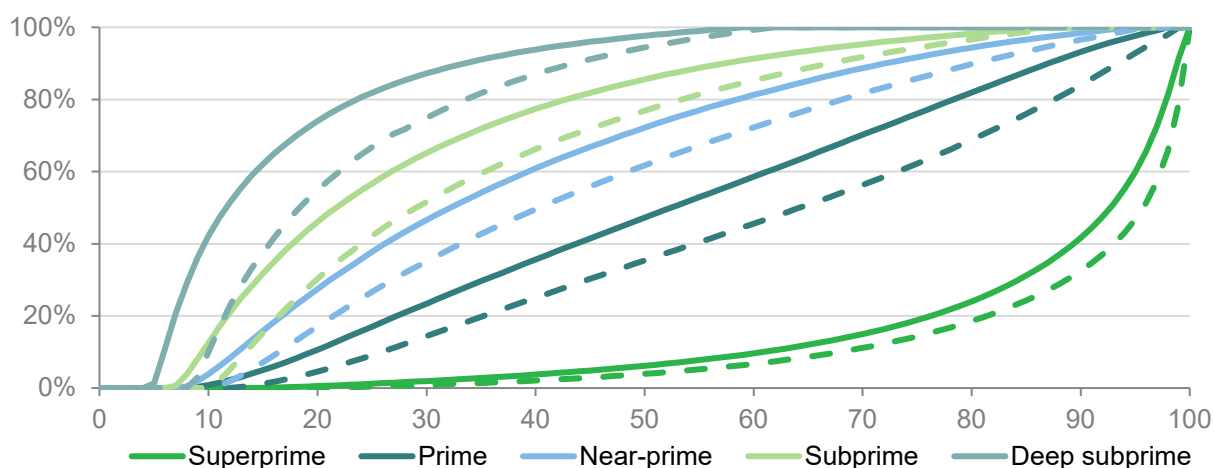
Figure 22: AVERAGE UNUSED CREDIT LINE PER CARDHOLDER (CCP)



Despite recent increases in average cardholder line and unused line, 2018 general purpose card utilization still looks very different from pre-recession utilization. Figure 23 shows the distribution of general purpose card utilization rates for cardholders in each credit tier in 2007 and in 2018. Utilization at the *cardholder* level is on the y-axis, and the share of cardholders in a given tier is shown on the x-axis. In every credit tier, utilization rates have increased. For example, median utilization was 47 percent for prime cardholders in 2018 but only 35 percent in 2007. In fact, 2018's near-prime utilization distribution is quite close to the distribution for subprime consumers in 2007. In terms of utilization alone, therefore, today's near-prime cardholders look more like pre-recession subprime cardholders.

¹²⁹ That low rate of usage is part of what contributes to a superprime score. The same balance held on lower line accounts issued to consumers with lower scores would result in a different utilization rate—and different credit score implications.

Figure 23: DISTRIBUTION OF UTILIZATION RATE BY CREDIT SCORE TIER IN 2007 (DASHED) AND 2018 (SOLID), GENERAL PURPOSE (CCP)



To explore utilization further, Figure 24 compares median general purpose cardholder utilization across all of their general purpose credit cards for the various credit tiers for 2007, 2010, and 2018, and Figure 24 shows increases in median cardholder utilization across tiers over time, especially for consumers in lower tiers. Median utilization rates are noticeably higher in 2018 than in 2010, immediately following the recession for consumers in all credit tiers except prime.

Figure 24: MEDIAN CARDHOLDER UTILIZATION BY CREDIT SCORE TIER, GENERAL PURPOSE (CCP)

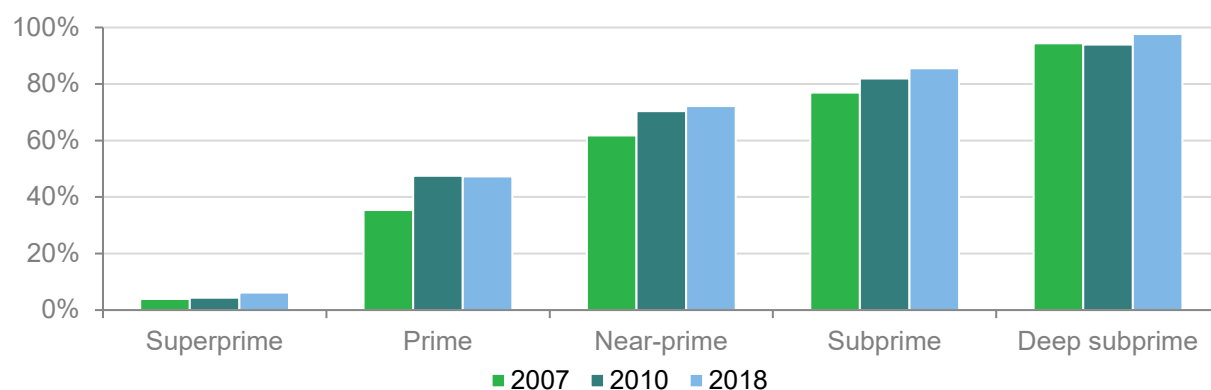
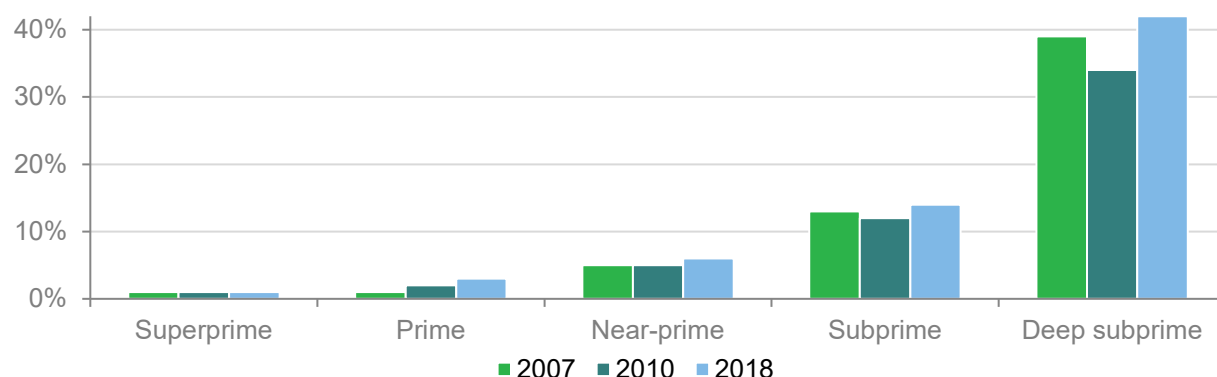


Figure 25 shows the share of consumers with 100 percent utilization across all general purpose credit cards for these same years. As shown, a higher proportion of cardholders were “maxed out” in the different credit tiers in 2018 than before or during the recession. About 42 percent of

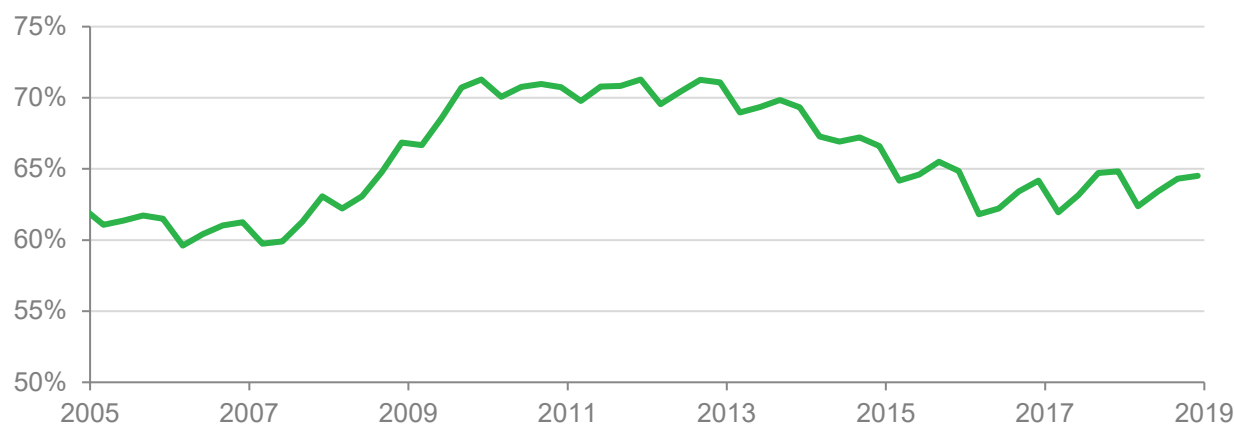
deep subprime consumers have reached 100 percent utilization. Cardholders in this situation will find it difficult to make credit card transactions.

Figure 25: SHARE OF CARDHOLDERS WITH 100 PERCENT UTILIZATION BY CREDIT SCORE TIER, GENERAL PURPOSE (CCP)



Finally, Figure 26 tracks the share of consumers with below-prime scores that have used 90 percent or more of their general purpose credit line. It shows a slight increase since 2016, reaching around 65 percent by the end of 2018. Even so, that remains below the levels in the wake of the recession. In fact, the share exceeded 70 percent from late 2009 through the end of 2012. Before the recession, however, this metric fell to as low as 60 percent in 2006. Rising balances suggest that the improvement in this metric from 2012 is the result of increases in credit line offered to cardholders with below-prime scores.

Figure 26: QUARTERLY SHARE OF BELOW-PRIME CARDHOLDERS WITH AT LEAST 90 PERCENT UTILIZATION ACROSS ALL CARDS, GENERAL PURPOSE (CCP)



4.2.3 Credit line changes

Credit lines on existing accounts are not static. Issuers can increase or decrease them without consumer consent. Credit line increases are somewhat restricted by the CARD Act's ability-to-pay requirements, but issuers confront a range of more substantial regulatory restrictions on repricing existing balances.¹³⁰ As a result, the Bureau's 2017 Report reviewed evidence that suggested that issuers might be using line management, in place of repricing balances, as a means of responding to revealed risk post-origination.¹³¹ In that respect, the 2017 Report looked at metrics to assess whether issuers were extending smaller credit lines to borrowers at origination and then increasing those lines over time as borrowers demonstrated good payment behavior.¹³²

As shown in Figure 27 and 28, quarterly CLI incidence in 2018 was around 4 percent for both card types. That is closer to a historic norm for private label but represents a significant drop from pre-recession levels for general purpose. CLDs spiked in the recession—very significantly for private label cards—but are now stable at under 1 percent for general purpose and around 2 percent for private label.¹³³

For both general purpose and private label, average quarterly CLI incidence remains relatively high for consumers with prime, near-prime, and subprime scores. Recent declines in CLI incidence for these tiers are notable for private label, in particular, although for general purpose cards near-prime and subprime tiers have also seen some fall-off since 2016. With those recent

¹³⁰ The ability-to-pay rules require that issuers consider an applicant's ability to pay the minimum monthly payment on an account prior to opening a credit card account under an open-end (not home-secured) consumer credit plan or increasing a credit line on such an account. 12 C.F.R. § 1026.51(a)(1)(i). *See also* 15 U.S.C. § 1665e (2012). Repricing of existing balance is only allowed under a set of relatively narrow circumstances. *See* 12 C.F.R. § 1026.55(b).

¹³¹ In response to the Bureau's Request for Information, a commentator claimed that issuers have adopted a strategy of extending smaller initial credit lines which can rise over time as the borrower demonstrates good payment behavior. The comment noted that this practice allowed issuers to expand access to credit while managing risk. *See* American Bankers Association (ABA) Comment Letter, at 4.

¹³² 2017 Report, *supra* note 5, at 158-162.

¹³³ *See id.* at 154.

changes, only subprime private label cardholders showed a CLI incidence that exceeds pre-recession levels in 2018.

Figure 27: AVERAGE QUARTERLY CREDIT LINE INCREASE INCIDENCE, GENERAL PURPOSE (CCP)

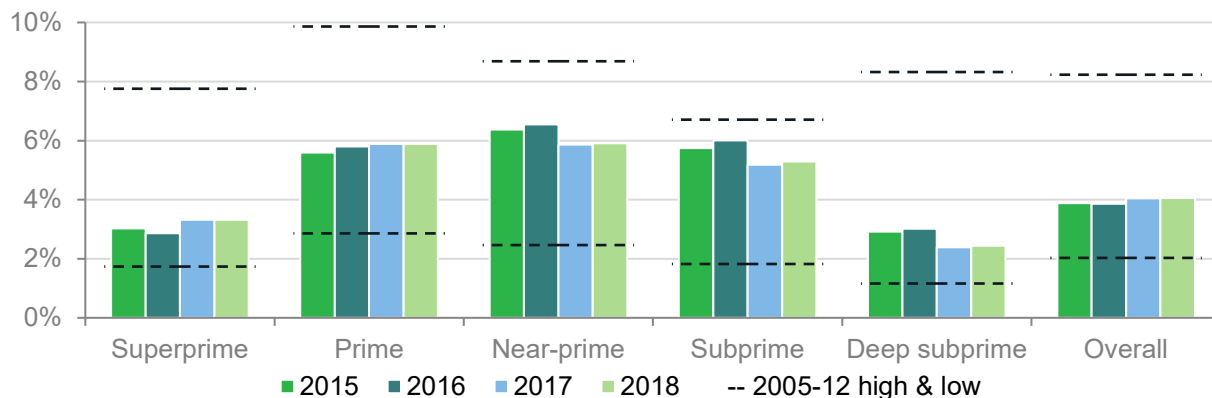
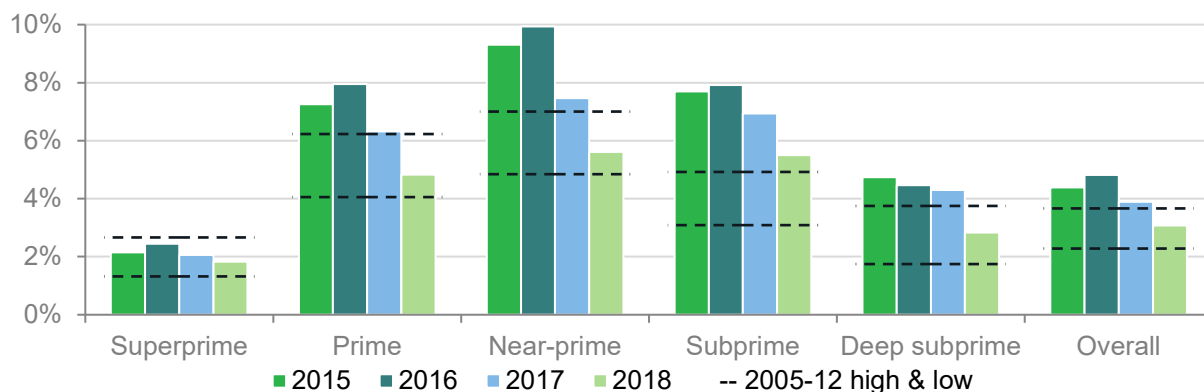


Figure 28: AVERAGE QUARTERLY CREDIT LINE INCREASE INCIDENCE, PRIVATE LABEL (CCP)



Recent trends in median credit line change amounts suggest that even as issuers may be using line changes more sparingly than in the pre-CARD Act era, the size of median CLIs have been increasing in recent years and in 2018 exceeded pre-recession highs overall and for the superprime tier. Figure 29 shows that for general purpose accounts, this increase resulted from greater median increases for cardholders with higher scores, although median CLIs for prime cardholders are now at \$1,500, the same median size achieved before the recession. Consumers with lower scores actually saw a drop in median CLI over the last few years. In fact, in the lowest-score tiers, the median fell to the lows reached in 2010. This suggests general purpose

card issuers may be reluctant to extend additional credit line to cardholders with lower scores in the current economic environment.

Figure 29: MEDIAN CREDIT LINE INCREASE AMOUNT, GENERAL PURPOSE (CCP)

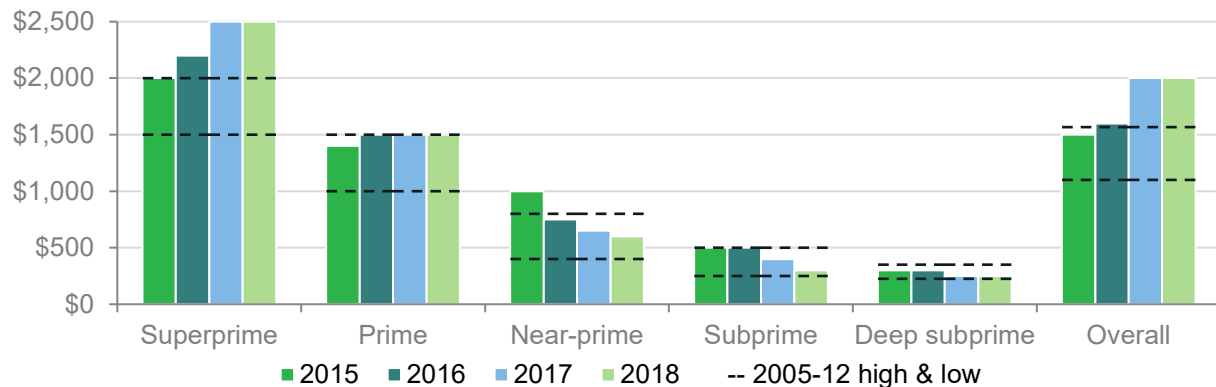
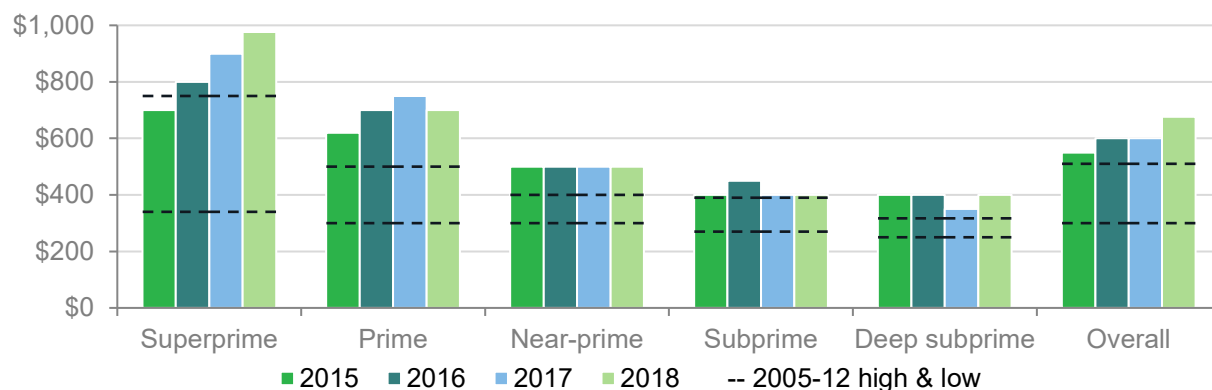


Figure 30 shows median CLI amounts have increased for private label cards, despite the lower incidence of CLIs in this period. Again, this masks tier differences. Superprime consumers were the only tier to show any significant increase in median CLI between 2017 and 2018. Median CLI amounts remained flat or fell slightly in other tiers. In every tier, however, the median CLI amount remains at or above pre-recession highs. Along with higher lines on new private label accounts, larger CLIs have contributed to the strong rebound in credit availability for private label cardholders of all credit score tiers.¹³⁴

¹³⁴ See Section 4.2.1.

Figure 30: MEDIAN CREDIT LINE INCREASE AMOUNT, PRIVATE LABEL (CCP)



The CLD record is more uniform and stable, with the notable exception that CLD incidence has increased markedly for lower credit tiers in private label.¹³⁵ By 2018, CLD incidence for deep subprime private label accounts was more than 9 percent, the highest level recorded since the 2005 start of the data period used in this report, and significantly higher than the less than 2 percent recorded for deep subprime general purpose accounts. Subprime private label accounts have also seen run-ups in CLD incidence in the last few years and in 2018 had an incidence rate of around 5 percent, as compared to less than 2 percent for general purpose accounts. Similarly, CLI incidence for private label accounts has fallen for cardholders in all tiers, but particularly for cardholders in below-superprime tiers. This evidence suggests that private label card issuers may be reacting to heightened risk in those portfolios by limiting their exposure.

¹³⁵ Graphical depictions of CLD trends by tier are in Appendix A at Figures 4 through 7.

5. Practices of credit card issuers

This section describes trends and developments in issuer practices related to three common credit card features: credit card rewards, balance transfers, and cash advances. For each feature, it discusses its take-up or prevalence in the market, costs associated with providing or utilizing the feature, and any changes issuers or third parties have made in provisioning or supporting consumers who choose to use them.

5.1 Rewards

Credit cards offering points, miles, cash back, or exclusive experiences remain popular with cardholders. This section reviews recent rewards trends.

5.1.1 Prevalence

The share of credit card spending accounted for by rewards cards has continued to increase over the last few years. That is true both overall and for each of the main credit tiers, with growth particularly notable for consumers with lower credit scores. By the end of 2018, even consumers with deep subprime scores put more than one-half of their credit card purchase volume on rewards cards, and consumers with near-prime scores put more than two-thirds of their spending on rewards cards.¹³⁶ Trends in reward-card purchase volume as a share of total spending are shown in Figure 1.

¹³⁶ In an interesting survey result, J.D. Power reported in 2018 that consumers who self-report as “fully understanding how to earn and redeem points” have an average spend that is nearly one-third higher than the average spend of consumers who self-report as not fully understanding their rewards programs. *See* J.D. Power Satisfaction Study, *supra* note 1 (reporting that overall about 64 percent of credit cardholders say that they fully understand the rewards available to them).

While rewards cards continue to account for a larger share of spending, their share of originations is falling. Figure 2 shows the share of originations accounted for by rewards cards over the last few years. For all credit score tiers and overall, that share declined in 2018. In fact, by the end of 2018, rewards originations for every credit tier were below their share of total originations at the end of 2015, in some cases quite markedly so. As explored in the next subsection, the popularity of rewards and other factors have driven rewards costs higher. The resulting cost pressure, rather than any loss of demand, may account for the results in Figure 2.

Figure 1: SHARE OF PURCHASE VOLUME ON A REWARDS CARD, GENERAL PURPOSE (Y-14+)

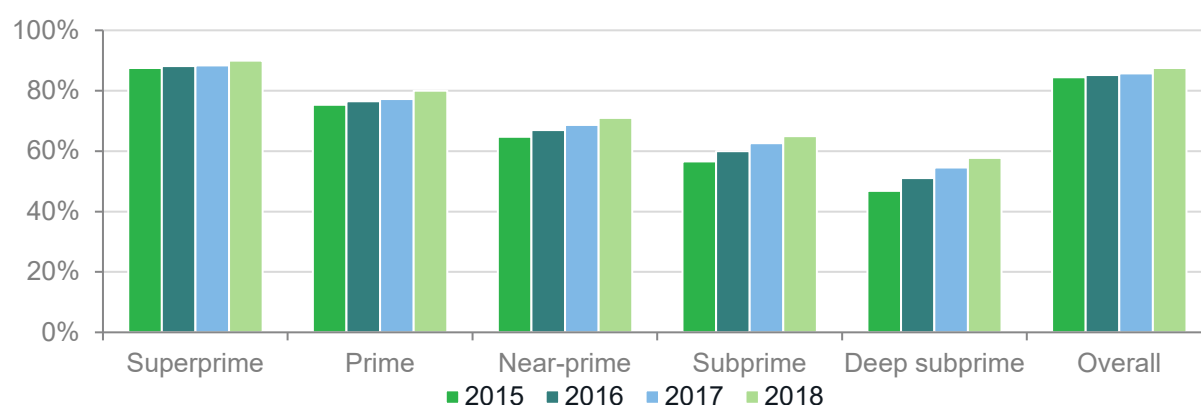
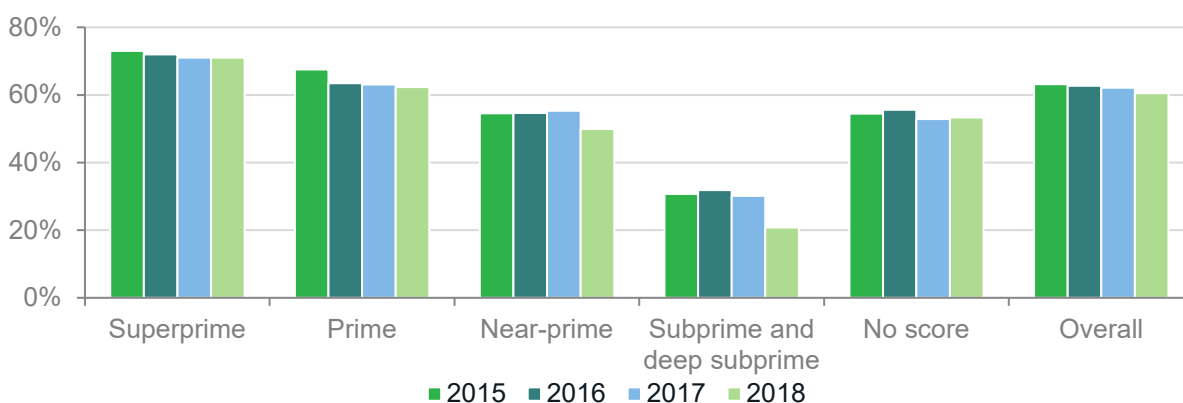


Figure 2: SHARE OF NEW ACCOUNTS WITH REWARDS, GENERAL PURPOSE (Y-14)



Given the predominance of cards at the higher end of the credit spectrum, rewards cards still account for over 60 percent of all originations. That result roughly aligns with survey findings

that show rewards as the predominant factor in choosing a card.¹³⁷ Despite a relatively low share of new accounts with rewards for general purpose cardholders with subprime and deep subprime scores, these cardholders still put more than one-half of their credit card spending on rewards cards, as shown in Figure 1.

Cardholders continue to prefer cash rewards, despite the sometimes-higher redemption value of other types of rewards like points or miles, possibly due to the simplicity and flexibility of cash rewards programs.¹³⁸ More than one-quarter of all originations in the Y-14 sample for 2018 were for cashback rewards cards. Although the share of originations accounted for by these cards has declined slightly over the last few years, no other rewards category accounted for a larger share of originations. Cards that earned miles continued to account for less than 10 percent of all originations in 2018.

5.1.2 Cost

The cost of offering rewards has risen over the past several years as issuers compete for cardholders with richer rewards offers—and cardholders take greater advantage of the rewards that are offered. Since the first quarter of 2015, the data available to the Bureau show a roughly 84 percent increase in overall rewards expense.¹³⁹ Given the increase in the overall number of

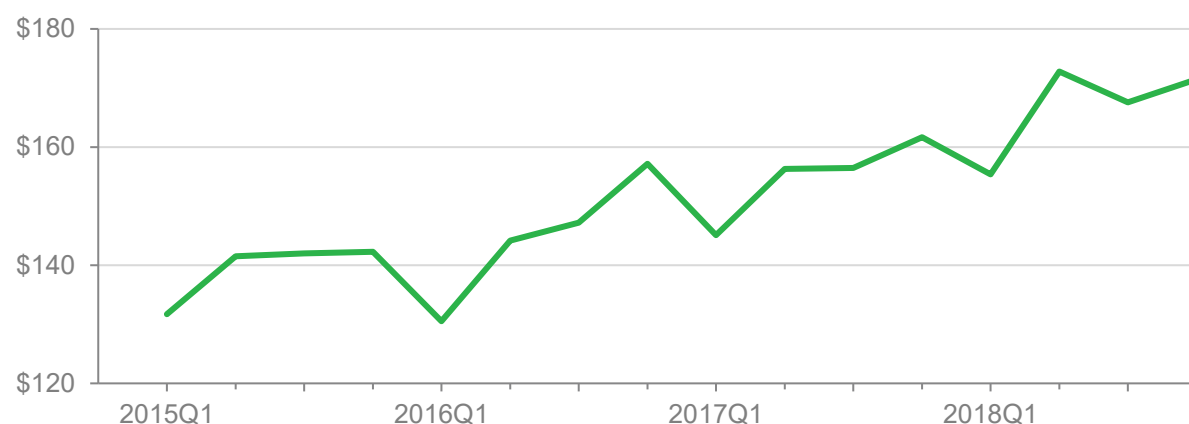
¹³⁷ One recent survey reported that “[r]ewards continue to be the number one factor for why consumers use one credit card over another. This was true again this year, with 79 percent claiming it influenced their choice...” TSYS, *2018 TSYS U.S. Consumer Payment Study*, at 23 (Apr. 2019), http://tsys.com/Assets/TSYS/downloads/rs_2018-us-consumer-payment-study.pdf. Similarly, J.D. Power’s 2018 survey found that 47 percent of credit card customers who switched to a new card within the past 12 months did so for a better rewards program. See J.D. Power Satisfaction Study, *supra* note 1. In its 2013 Report, the Bureau references a 2011 Mercator Customer Monitor Survey showing rewards were the number one reason to apply for a selected card at that time as well. 2013 Report, *supra* note 5, at 82 n.94.

¹³⁸ See Claire Tsosie, *Cash Back vs. Travel: How to Choose Credit Card Rewards*, Nerdwallet: Blog (Nov. 3, 2017), available at <https://www.nerdwallet.com/blog/credit-cards/cash-back-vs-travel-how-to-choose-your-credit-card-rewards/>.

¹³⁹ “Rewards expense” refers to “Total Non-Interest Expense – Rewards/Rebates Expense,” defined as “rewards/rebates expenses associated with reward and rebate programs for credit cards.” Fed. Reserve System,

rewards accounts across the same period, the average rewards expense per account has not risen as fast, but it has still seen significant increase. In 2018, each rewards card cost issuers an average of \$167 in rewards-related expense, up from \$139 in 2015. This increase has been driven, in part, by an increased prevalence of high-cost high-rewards cards—with high sign-on bonuses—in the affluent market segment.¹⁴⁰ Intense rewards cards competition has pushed up not only expenses but issuers’ reserved liabilities for rewards benefits accrued but not redeemed by cardholders.¹⁴¹

Figure 3: AVERAGE ISSUER REWARDS EXPENSE PER REWARDS ACCOUNT PER YEAR, GENERAL PURPOSE (Y-14,Y-14P)



One way issuers have sought to reduce costs on rewards products is by reducing the redemption value, placing restrictions on rewards earning, or eliminating ancillary benefits. Issuers have also sought to restructure rewards programs in ways that may reduce the value of the cards to some users, such as lowering sign-on bonuses or limiting eligibility for bonuses to some

Instructions for the Capital Assessments and Stress Testing Information Collection, at 201-02, https://www.federalreserve.gov/reportforms/forms/FR_Y-14M20180331_f.zip (last modified Mar. 20, 2018).

¹⁴⁰ See, e.g., Andriotis & Glazer, *supra* note 92.

¹⁴¹ “As of the third quarter, JPMorgan’s credit-card holders had accrued \$5.8 billion in rewards they had not yet redeemed, up 53% from the end of 2016, according to securities filings.” *Id.* The Bureau is unable to assess whether this trend is similar for other issuers because most issuers do not specifically report credit card rewards liability and instead include the figure in accounts payable and other liabilities on the balance sheet.

customers.¹⁴² Some issuers are increasing the number of points or miles required to purchase items since there are currently no regulations specifically governing the devaluation or annulment of non-cash rewards such as points or miles.¹⁴³ In fact, credit card agreements may include a clause that explicitly allows them to do so.¹⁴⁴ Issuers with higher rewards earn rates often limit their exposure by placing restrictions on rewards earning in some categories, such as limiting high rewards rates to the first \$1,500 of spend in a specific merchant category in a given quarter or requiring the cardholder take the extra step of going online to “activate” the higher rate every quarter.¹⁴⁵ While an indirect cost to issuers, it is also notable that some non-rewards benefits are also being reduced.¹⁴⁶ Some examples of the sorts of benefits that select card issuers

¹⁴² See Andriotis & Glazer, *supra* note 92. See also Nick Ewen, *The Ultimate Guide to Credit Card Application Restrictions*, thepointsguy.com (June 26, 2018), available at <https://thepointsguy.com/guide/credit-card-application-restrictions/>.

¹⁴³ See, e.g., Jacob Passy, *Capital One Quietly Changed Some of its Credit-Card Rewards — Why You Should Care*, MarketWatch (Apr. 13, 2019), available at <https://www.marketwatch.com/story/capital-one-quietly-changed-the-rewards-program-for-some-of-its-popular-credit-cards-why-all-consumers-should-pay-attention-2019-04-09>. For rewards programs with a merchant partner (such as an airline), the merchant partner often controls the redemption value. See, e.g., Spencer Howard, *Chase Hit Hard by United Devaluation, Needs to Step Up Its Game*, godsavethepoints.com (Apr. 8, 2019), available at <https://www.godsavethepoints.com/2019/04/08/chase-hurt-by-united-devaluation/>.

¹⁴⁴ Several agreements reviewed had such clauses. See, e.g., Citigroup Inc., *Card Agreement Guide*, https://www.citicards.com/cards/wv/pdf/CMA_PID410.pdf; American Express Nat’l Bank, *Blue Cash Everyday Card Cardmember Agreement*, https://www.americanexpress.com/content/dam/amex/us/staticassets/pdf/cardmember-agreements/blue-cash-everyday/Blue_Cash_Everyday_03-31-2019.pdf; Wells Fargo, *Summary of the Go Far Rewards Program Terms and Conditions and Addendum*, and <https://www.wellsfargo.com/credit-cards/rewards/terms#rewardssummary>.

¹⁴⁵ See, e.g., Chase Bank, *Here’s Your 5% Cash Back Calendar*, <https://creditcards.chase.com/freedom-credit-cards/calendar> (last visited July 15, 2019); Discover Bank, *The New 5% Calendar is Here*, <https://www.discover.com/credit-cards/cashback-bonus/cashback-calendar.html> (last visited July 15, 2019).

¹⁴⁶ “Profitability and managing costs remain top of mind, with some issuers considering changes in card benefits. For example, Chase and Citi, among others, are removing or decreasing price protection, while Discover will no longer offer extended product warranty, return guarantee, purchase protection, auto rental insurance, and flight accident insurance.” J.D. Power Studies, *U.S. Credit Card Satisfaction Study—Executive Briefing*, J.D. Power (Aug. 14, 2018).

or card networks have stopped providing include: purchase protection, return protection, auto rental insurance, or lost baggage protection.¹⁴⁷

There are also signs that issuers are working to increase their fee revenue from rewards products. Since 2015, nearly one in four new rewards cards has carried an annual fee, compared to 16 percent on existing rewards cards in 2015. As new cards have been issued, the share of rewards cards with an annual fee has grown to 18 percent in 2018. Rewards cards typically carry significantly higher annual fees than non-rewards cards. In part, increased demand from cardholders for high-annual-fee rewards cards with high benefits is driving the increased fee revenues for rewards cards. However, at least two issuers did increase the annual fee on some cards for both new and existing cardholders.¹⁴⁸ The Bureau has not detected an analogous effort to raise interest rate revenue from rewards products.

5.1.3 Digital developments

The easy availability of digital tools to consumers is affecting rewards use, just as it has affected other aspects of the card market.¹⁴⁹ Issuers are offering digital tools to make the use of rewards easier and to make the process of earning and redeeming rewards more transparent. For example, some online tools offer potential cardholders the ability to determine whether they

¹⁴⁷ See, e.g., Herb Weisbaum, *Major Credit Card Companies are Cutting Their Perks. Here's What You Need to Know*, NBC News (June 18, 2018), available at <https://www.nbcnews.com/better/business/major-credit-card-companies-are-cutting-their-perks-here-s-ncna884406>. In most cases, an issuer reducing card benefits sends cardholders an updated “Guide to Benefits” that indicates what changes are being made to their card. Under current Regulation Z, cardholders do not have the right to reject changes in ancillary benefits in the same way they are able for changes to other credit card terms. For more information on circumstances in which the consumer does have the right to reject changes, see 12 C.F.R. 1026.9(c)(2)(iv)(B).

¹⁴⁸ See, e.g., Sara Rathner, *Citi Prestige Updates to Include Elevated Rewards, Higher Fee*, Nerdwallet: Blog (Mar. 8, 2019), available at <https://www.nerdwallet.com/blog/credit-cards/citi-prestige-elevated-rewards-higher-annual-fee/>; Maria Lamagna, *Yielding to Critics, American Express Boosts its Sign-Up Bonus for the Platinum Card*, Marketwatch (Apr. 1, 2017), available at <https://www.marketwatch.com/story/is-the-new-american-express-platinum-card-worth-it-2017-03-03>.

¹⁴⁹ For other impacts from digital developments, see Section 8 and Section 4.1.

would qualify for a sign-up bonus *before* applying.¹⁵⁰ Other new digital tools let cardholders monitor their progress toward meeting minimum spending thresholds to receive the sign-up bonus.¹⁵¹ Additional online tools let cardholders track how much they are earning in rewards across various accounts.¹⁵²

Third parties are also working to deliver digital information about efficient reward use to consumers. For example, one TPC site offers a mobile app that guides cardholders to pay with the credit card in the user's digital wallet that offers the most rewards points, minimizes interest charges, or maximizes cash flow.¹⁵³ Another mobile app operates similarly, while also offering a summary of card rewards and benefits.¹⁵⁴ The same dynamic applies for ancillary benefits as well. In fact, one reason some issuers are reducing benefits may be the emergence of apps that enable consumers to take more advantage of such benefits, causing a spike in usage and

¹⁵⁰ See, e.g., JT Genter, *American Express Launches New Welcome Bonus Qualification Tool*, The Points Guy, (June 13, 2018), available at <https://thepointsguy.com/news/amex-new-welcome-bonus-qualification-tool/>. Many new cardholders apply for cards on the basis of a sign-up incentive that offers a bonus amount of points for meeting some minimum spending threshold in the first few months of use. In recent years, as the costs associated with introductory reward offers have increased, issuers have also restricted eligibility requirements for these offers. For example, an issuer may only permit a consumer to earn one intro bonus per card for the life of the consumer.

¹⁵¹ See, e.g., Katherine Fan, *New Chase Tool Shows Your Sign-Up Bonus Spending Progress*, The Points Guy (Mar. 20, 2019), available at <https://thepointsguy.com/news/chase-sign-up-bonus-spend-tracker/>.

¹⁵² See, e.g., Press Release, Bank of America, *Bank of America Introduces My Rewards* (Sept. 27, 2018), available at <https://newsroom.bankofamerica.com/press-releases/consumer-banking/bank-america-introduces-my-rewards>.

¹⁵³ See creditcards.com, *Wallet—Pay with the Right Card Every Time. Maximize Your Rewards When You Shop*, <https://www.creditcards.com/mobile/wallet/> (last visited July 15, 2019).

¹⁵⁴ Abhinav Dubey, *How We Unlock Automatic Rebates from Price Drops and Other Hidden Credit Card Benefits*, (May 31, 2017), Sift: Blog Sift, <https://www.siftwallet.com/blog/2017/03/12/this-is-sift/>.

therefore also the cost to issuers of providing them.¹⁵⁵ At least one mobile app lets cardholders take greater advantage of price protection benefits without requiring action by the cardholder.¹⁵⁶

Digital technology also holds the potential of improving cardholder understanding of rewards programs. J.D. Power has tracked rewards understanding over its last few surveys, and reports that 36 percent of consumers self-report as not fully understanding their rewards products.¹⁵⁷ Another study by TPC site NerdWallet found that almost one-half of U.S. consumers overestimate how much their points, miles and sign-up bonuses are worth.¹⁵⁸ However, in its 2017 Report, J.D. Power noted that “customers who embrace technology and use both their issuer’s website and mobile offerings have a greater understanding of their card terms, benefits, and rewards.”¹⁵⁹

5.2 Balance transfers

Balance transfers enable the consumer, in return for an upfront fee, to pay off debt at a lower interest rate for a fixed period. Some credit cards offer introductory rate balance transfers to incentivize consumers to apply for the card and, if successful, shift existing balances from other cards onto the new one in exchange for potentially lower costs. In addition to transfers of debt from another credit card, most balance transfer offers allow consumers to pay off debt related to

¹⁵⁵ See Jessica Puckett, *Explosion in Claims Force Changes to Credit Card Price Protection Policies*, The Points Guy (May 25, 2018), available at <https://thepointsguy.com/news/higher-claims-force-price-protection-changes/>.

¹⁵⁶ Earny, *Get Money Back After Your Purchases Drop in Price*, <https://www.earnny.co/home> (last visited May 31, 2019).

¹⁵⁷ J.D. Power Studies, *U.S. Credit Card Satisfaction Study—Executive Briefing*, J.D. Power (Aug. 14, 2018).

¹⁵⁸ Erin El Issa, *NerdWallet’s 2019 Travel Credit Card Study*, Nerdwallet: Blog (Apr. 10, 2019), available at <https://www.nerdwallet.com/blog/credit-card-data/travel-credit-cards-study/>.

¹⁵⁹ Jim Miller, *Analyst Briefing – 2017 Credit Card Satisfaction Study*, J.D. Power (Aug. 2017).

other loans and bills.¹⁶⁰ Upon conclusion of the promotional period, if the consumer does not execute another balance transfer or take steps to repay the balance at the lower rate, the remainder of the balance becomes subject to the higher credit card “go to” interest rates.

5.2.1 Prevalence

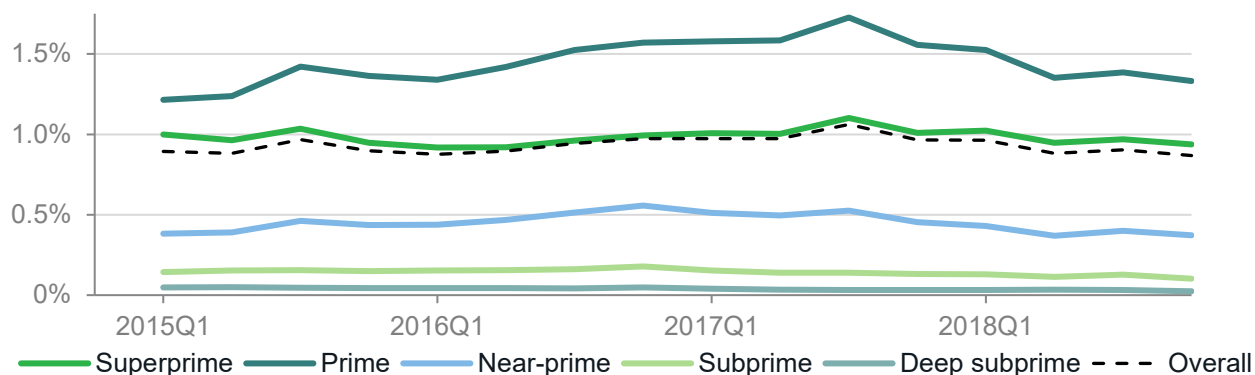
In 2018, total balance transfer volume of \$54 billion accounted for around 9 percent of credit card balances in the Y-14+ data. It rose roughly 38 percent from 2015 to 2018, significantly outpacing 21 percent growth in balances overall and modestly outpacing 34 percent growth in purchase volume.

Balance transfer volume and its growth remain almost entirely concentrated in the superprime and prime segments. As a percentage of total balance transfer volume in 2018, superprime and prime cardholders made up 72 percent and 25 percent respectively. Their collective share has not changed significantly over the past four years, with consumers in lower credit tiers receiving very few balance transfer offers. But 2018 was the first year since at least 2015 that saw a decline in total balance transfer volume for either superprime or prime segments, with prime consumers seeing a 1.7 percent drop in balance transfer volume from 2017.

That same drop shows up in the average incidence of balance transfers, with prime accounts’ decline in incidence from 2017 to 2018 the largest change in incidence for any tier over the last few years. In fact, incidence has remained flat for most tiers in this period. Overall, for each quarter of 2018, an average of 1.6 percent of open accounts held by consumers with prime scores, and 1 percent of accounts held by consumers with superprime scores, took out a balance transfer. Balance transfer incidence across credit tiers is shown in Figure 4.

¹⁶⁰ Many transactions effectuated using a “convenience check” may also be treated as balance transfers by issuers. However, not all such transactions are so treated; depending on how it is used, some may be treated similarly to cash advances. The Bureau therefore excludes convenience check transactions from this analysis (and from its analysis of cash advances in Section 5.3), acknowledging that this likely excludes at least some volume that may be identical or near-identical from the consumer perspective.

Figure 4: QUARTERLY BALANCE TRANSFER INCIDENCE, GENERAL PURPOSE (Y-14+)



In contrast to average balance transfer incidence, the average size of balance transfers has risen markedly. Balance transfers for prime cardholders rose from an average \$3,656 in 2015 to \$4,136, a 13 percent increase. Near-prime cardholder balance transfers increased about 23 percent to \$2,845 over the same period. Superprime consumers had the largest average balance transfer size in 2018 at \$5,453, representing 8 percent growth since 2015.

5.2.2 Cost

Balance transfers generally charge an initial fee, followed by a low interest rate on the transferred balance for a set period of time or until the balance is repaid. There may also be a cost associated with the loss of a grace period, which can cause an increase in interest charges on other purchases.¹⁶¹ Measured as a percentage of the amount that cardholders transfer, the average fee for balance transfers has been declining in recent years. Since 2015, the average balance transfer fee has fallen from 3.2 to 2.8 percent in 2018. Some issuers offer introductory no fee balance transfers for new cards, but this does not appear to be a common practice in the industry.¹⁶² With respect to grace period impacts on interest charges, some issuers now permit

¹⁶¹ Issuers are required to provide certain disclosures to consumers which include information regarding the potential loss of a grace period when balances are not paid in full. 12 C.F.R. § 1026.6(b)(2)(v).

¹⁶² See, e.g., Chase Bank Credit Cards, *Chase Slate Credit Card*, <https://creditcards.chase.com/balance-transfer-credit-cards/chase-slate> (last visited July 15, 2019). See also Edward Jones, *Two Valuable Card Options. Exclusively for Edward Jones Clients*, <https://www.edwardjones.com/investments-services/cash-credit/credit-cards/credit-cards.html> (last visited July 15, 2019).

consumers to continue to enjoy a grace period on new purchases even while revolving a transferred balance during the promotional period. The prevailing practice, however, appears to be that revolving balance transfers does eliminate the grace period on regular purchases, thereby driving up the cost of those other purchases to consumers.

5.3 Cash advances

The cash advance feature, offered on many general purpose credit cards, allows consumers to obtain cash or cash equivalents using a portion of their card’s credit line (20 percent of the line is common), sometimes called the “cash line.”¹⁶³ Consumers can effect cash advances through a variety of means; ATM withdrawals may be the most well-known form of cash advance, but they are not the only one. Issuers may treat certain credit card usage, such as chips at a casino or gold at a bank, as cash advances. The purchase of foreign currency, traveler’s checks, gift cards, prepaid cards, convenience checks, and virtual currencies may also be treated as cash advances.¹⁶⁴ Cash advances can be incurred, too, if the credit line is used to cover shortfalls on a linked deposit account.

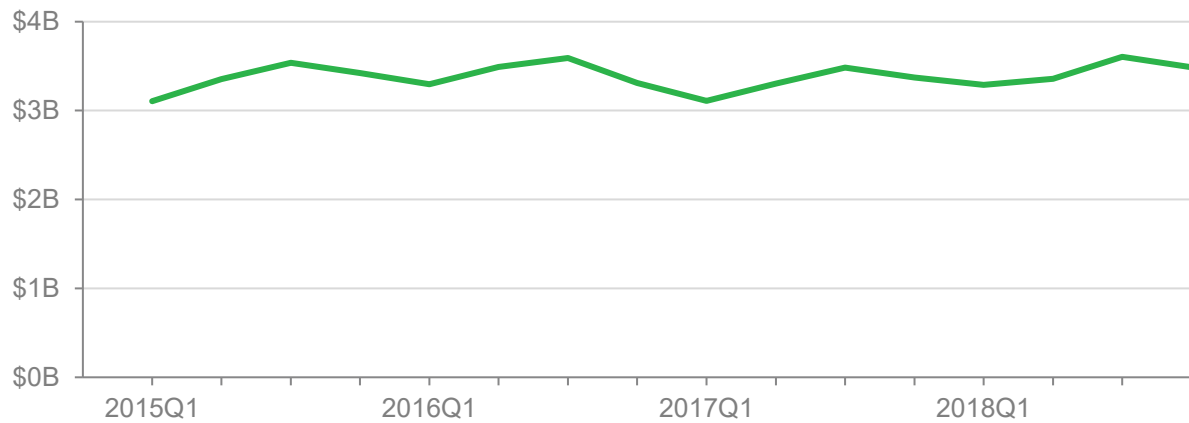
5.3.1 Prevalence

Cash advance volume has only increased 2 percent since 2015, far behind the growth in balances and purchase volume over the same period. As of 2018, cash advance balances accounted for about 2 percent of balances overall. Cash advance volume is a bit seasonal, typically showing slightly higher volumes in the third quarter of each year, but averages over \$3 billion per quarter.

¹⁶³ To the Bureau’s knowledge, some private label cards provide a cash advance feature at the point of sale, but the practice is not common and does not fall within the scope of this section.

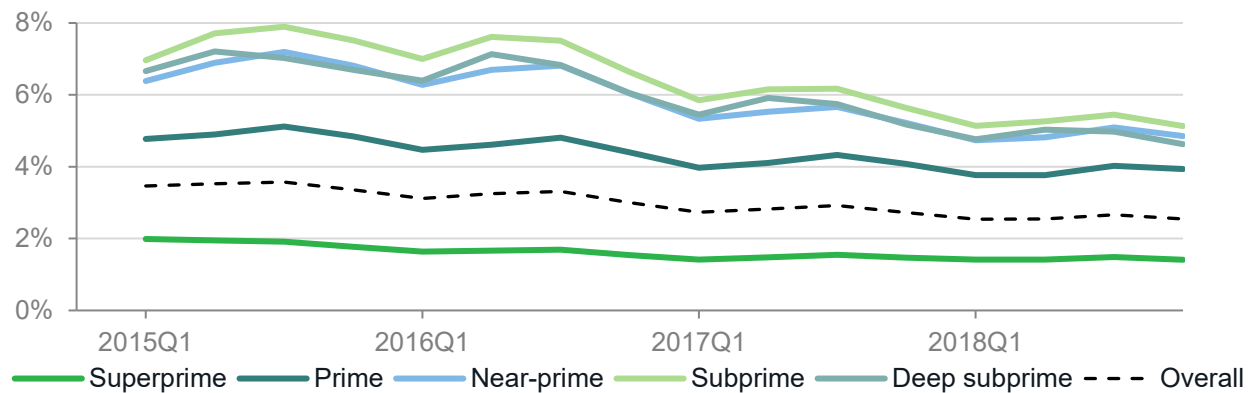
¹⁶⁴ Many transactions effectuated using a “convenience check” may also be treated as cash advances by issuers. However, not all such transactions are so treated; depending on how it is used, some may be treated similarly to balance transfers. The Bureau therefore excludes convenience check transactions from this analysis (and from its analysis of balance transfers in Section 5.2), acknowledging that this likely excludes at least some volume that may be identical or near-identical from the consumer perspective.

Figure 5: QUARTERLY CASH ADVANCE VOLUME, GENERAL PURPOSE (Y-14+)



Unlike balance transfers, cash advances are available to any cardholder with sufficient available cash credit line on a card that has the feature. Cash advance incidence is relatively uniform across credit score tiers, with the exception of superprime consumers who use cash advances markedly less than all other cardholders. Cash advance incidence has declined over the last few years, particularly in the below-prime market segment.

Figure 6: QUARTERLY CASH ADVANCE INCIDENCE, GENERAL PURPOSE (Y-14+)



5.3.2 Cost

Cash advances typically have two cost components: upfront fees and interest.¹⁶⁵ Fee structures can be relatively complex, with some card agreements stipulating different cash advance fee percentages and minimum fee amounts for different cash advance transactions, such as lower fees for ATM transactions and higher fees for cash equivalents like casino chips.¹⁶⁶ Cash advance APRs are typically higher than purchase APRs, and these transactions are not usually subject to any kind of grace period, meaning they begin accruing interest at that higher APR at the point that the cash advance is taken, even if the cardholder pays their balance in full every month.¹⁶⁷

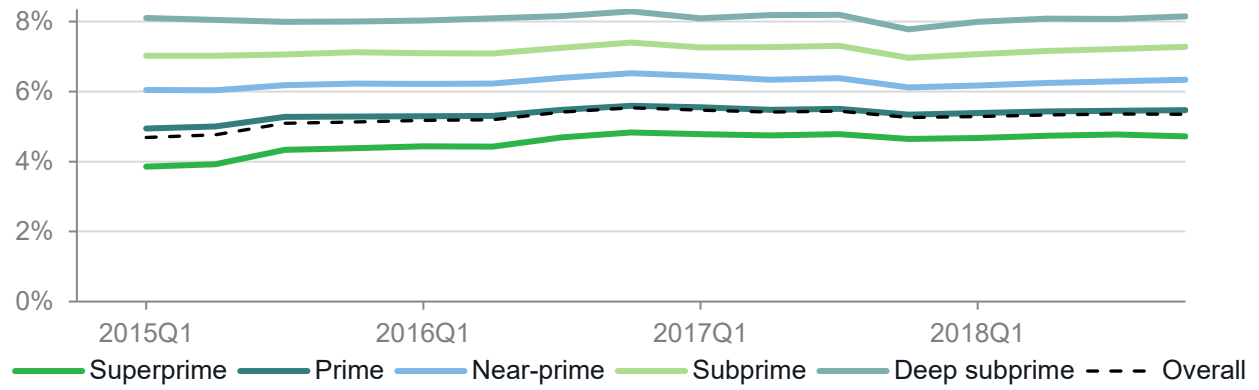
Cash advance fees have been stable in recent years, totaling just under \$1.5 billion for each of the last three years for issuers in the Y-14+ data. As a share of volume, cash advance fees averaged 5.3 percent in 2018, roughly the same ratio as in 2016 and 2017. Cash advance fee ratios are noticeably higher for cardholders in lower score tiers, as shown in Figure 7. Minimum fixed fee amounts for cash advances in a two-way pricing structure, such as “\$10 or 5%”, can translate to high cash advance fee ratios for cardholders in need of a cash advance, which may be unavoidable for cardholders with little remaining available credit on their cards as is common for cardholders with lower credit scores.

¹⁶⁵ Some credit cards do not charge an upfront fee for cash advances. *See, e.g.,* Brynne Conroy, *20 Credit Cards with No Cash Advance Fees*, magnifymoney.com (July 1, 2019), available at <https://www.magnifymoney.com/blog/best-of/20-credit-cards-no-cash-advance-fees189115277/>.

¹⁶⁶ *See, e.g.,* U.S. Bank, *Cardmember Agreement for U.S. Bank National Association Visa Signature and World MasterCard Accounts*, https://applications.usbank.com/oad/teamsite/usbank/docs/FRO06213482_04_USBSIG.pdf.

¹⁶⁷ Indirect costs to cardholders such as interest on balances from purchases that would otherwise be treated as interest free due to a grace period are not included in calculations of cash advance fee costs, but remain an important consideration.

Figure 7: QUARTERLY CASH ADVANCE FEES RELATIVE TO CASH ADVANCE VOLUME, GENERAL PURPOSE ACCOUNTS (Y-14+)



6. Scholarship on CARD Act effects

Previous biennial card market reports examined the extent to which trends in the price and availability of card credit might be attributable to the CARD Act or to other factors, such as the onset of the Great Recession.¹⁶⁸ In some cases, the effect of the CARD Act was relatively easily discerned. The CARD Act's late payment fee regulations, for instance, had an obvious direct effect on consumer late fee costs.¹⁶⁹

In other contexts, however, the Bureau consistently noted the difficulty of separating regulatory effects from other effects. This difficulty was apparent for specific regulatory provisions, such as the effect of the CARD Act's minimum payment disclosures on payment behavior, or the effect of the Act's card issuance and marketing restrictions for young consumers on cardholding by that population.¹⁷⁰ But this difficulty was even more apparent with respect to the *overall* effect of the Act on the credit card market, including aspects of the market indirectly affected by the Act, such as credit line assignments or purchase APRs.¹⁷¹ As a result, the Bureau's first comprehensive report, which it released in 2013, called for more research into the causal effects

¹⁶⁸ Over time, this biennial report has focused less on quantifying these direct effects and more on changes in the market since the report's last iteration.

¹⁶⁹ See 2013 Report, *supra* note 5, at 23.

¹⁷⁰ See *id.* at 43-44, 60-61. See also 2015 Report, *supra* note 5, at 49-52.

¹⁷¹ See 2013 Report, *supra* note 5, at 69-71. See also 2017 Report, *supra* note 5, at 158-162.

of the Act—including the effects of specific provisions as well as the overall effect of the Act on price and availability.¹⁷²

In the intervening period, social science researchers in economics, psychology, and other disciplines have conducted a number of studies of the CARD Act. Such research comes from universities as well as the Bureau and other federal agencies. This section reviews that work. The review focuses on social science research that has either begun or completed the peer-review process at leading academic journals and research that presents novel theoretical or empirical analyses of the CARD Act. Legal scholarship on the CARD Act is beyond the scope of this review, as are policy-oriented papers that largely summarize others' research in defense of particular policy changes.¹⁷³ This review necessarily is illustrative rather than exhaustive of the available literature, though it aims to be as representative as possible, especially among the most actively cited research papers in this area.¹⁷⁴ Additionally, the views in these research papers do not necessarily represent the views of the Bureau, and inclusion of a research paper in this section is not meant to imply that the Bureau has validated that research paper's findings.

Subsection 6.1 considers evidence on the direct effects of the CARD Act, including effects on certain aspects of credit card pricing, on the prevalence of credit card-holding among young consumers and on consumers' credit card repayment behavior. That section includes research

¹⁷² See 2013 Report, *supra* note 5, at 37 (“There clearly was an increase in interest rates and in the TCC during the year leading up to the date that most of the CARD Act provisions became effective (February 2010) and a decline since then, with a net reduction in the Total Cost of Credit of approximately 190 basis points. Further research is required to assess how much of that decrease can be attributable to the Act.”).

¹⁷³ This iteration of the Bureau's biennial card market report covers social science research. The Bureau may consider a review of legal scholarship in the future.

¹⁷⁴ For example, a Google Scholar search for “CARD Act” recovers several thousand possible articles to include in this review. Bureau staff reviewed these search results with an aim to include all studies, regardless of their findings, that were at some stage of the peer review process, that made a novel theoretical or empirical contribution to social science research on the CARD Act, and that were actively cited by other research in the social sciences.

papers by Sumit Agarwal et al. (Agarwal et al. (2015))¹⁷⁵, Scott Nelson (2018)¹⁷⁶, Thomas Durkin et al. (Durkin et al. (2014))¹⁷⁷, Lauren Jones et al. (Jones et al. (2015))¹⁷⁸, Hal Hershfield & Neal Roese (Hershfield & Roese (2014))¹⁷⁹, Linda Salisbury & Min Zhao (2018) (Salisbury & Zhao (2018))¹⁸⁰, Linda Court Salisbury (Salisbury (2014))¹⁸¹, Daniel Navarro-Martinez et al. (Navarro-Martinez et al. (2011))¹⁸², Jack Soll et al. (Soll et al. (2013))¹⁸³, and Peter Debbaut et al. (Debbaut et al. (2016)).¹⁸⁴

Subsection 6.2 reviews research on the overall effect of the Act, including potentially unintended consequences that take account of parts of the credit card market not as directly regulated by the Act, such as the Act's impact on credit line assignments or purchase APRs. That section includes

¹⁷⁵ Sumit Agarwal et al., *Regulating Consumer Financial Products: Evidence from Credit Cards*, 130 Q. J. of Econ. 1, at 111-164, (2015).

¹⁷⁶ Scott Nelson, *Private Information and Price Regulation in the US Credit Card Market*, (MIT Working Paper, 2018)).

¹⁷⁷ Thomas Durkin et al., *An Assessment of Behavioral Law and Economics Contentions and What we Know Empirically about Credit card use by Consumers*, 22 S. Ct. Econ. Rev. 1 (2014).

¹⁷⁸ Lauren Jones et al., *Effects of informational nudges on consumer debt repayment behaviors*, 51 J. of Econ. Psychol. 1, at 16-33 (2015).

¹⁷⁹ Hal Hershfield & Neal Roese, *Dual Payoff Scenario Warnings on Credit Card Statements Elicit Suboptimal Payoff Decisions*, 25 J. of Consumer Psychol. 1, at 15-27 (2014).

¹⁸⁰ Linda Court Salisbury & Min Zhao, *Active Choice Format and Minimum Payment Warnings in Credit Card Repayment Decisions*, (forthcoming J. of Pub. Pol'y & Mktg. (2018).

¹⁸¹ Linda Court Salisbury, *Minimum Payment Warnings and Information Disclosure Effects on Consumer Debt Repayment Decisions*, 33 J. of Pub. Pol'y & Mktg 1, at 49-64 (2014).

¹⁸² Daniel Navarro-Martinez et al., *Minimum Required Payment and Supplemental Information Disclosure Effects on Consumer Debt Repayment Decisions*, 48 J. of Mktg. Res. S1, at S60-S77 (2011).

¹⁸³ Jack Soll et al., *Consumer Misunderstanding of Credit Card Use, Payments, and Debt: Causes and Solutions*, 32 J. of Pub. Pol'y & Mktg. 1, at 66-81 (2013).

¹⁸⁴ Peter Debbaut et al., *The CARD Act and Young Borrowers: The Effects and the Affected*, 48 J. of Money, Credit and Banking 1, at 1495-1513 (2016).

research papers by Tiago Pinheiro & Joshua Ronen (Pinheiro & Ronen (2016))¹⁸⁵, Suting Hong (Hong et al. (2018))¹⁸⁶, Agarwal et al. (2015), Nelson (2018), Song Han et al. (Han et al. (2018))¹⁸⁷, Vikram Jambulapati & Joanna Stavins (Jambulapati & Stavins (2014))¹⁸⁸, Gregory Elliehausen & Simona Hannon (Elliehausen & Hannon (2018))¹⁸⁹, Larry Santucci (Santucci (2015))¹⁹⁰, and Yiwei Dou et al. (Dou et al. (2019)).¹⁹¹

This review of overall effects is in two parts. First, it covers research that uses theoretical analyses or economic models to predict and explain the potential overall effects of the Act. Second, this review identifies empirical analyses that evaluate which of these theoretical effects appear to have transpired, and how large these overall effects have been.

6.1 Direct effects

Studies that examine direct effects of the CARD Act have focused on three areas: penalty fee pricing and incidence; repayment behavior; and cardholding among young consumers. These

¹⁸⁵ Tiago Pinheiro & Joshua Ronen, *Unintended Consequences of the Credit Card Act*, 1 J. of L., Fin. and Acct., 1, at 93-138 (2016).

¹⁸⁶ Suting Hong et al., *Dynamic Pricing of Credit Cards and the Effects of Regulation* (Fed. Res. Bank of Philadelphia Working Paper No. 18-23 (2018)).

¹⁸⁷ Song Han et al., *Unsecured Credit Supply, Credit Cycles, and Regulation*, 31 The Rev. of Fin. Stud. 3, at 1184-1217 (2018).

¹⁸⁸ Vikram Jambulapati et al., *The Credit CARD Act of 2009: What Did Banks Do?*, (Fed. Res. Bank of Boston, Public Policy Discussion Paper Series 2015-103, (2014)).

¹⁸⁹ Gregory Elliehausen & Simona M. Hannon, *The Credit Card Act and consumer finance company lending*, 34 J. of Fin. Intermediation, 1, 109-119, (2018).

¹⁹⁰ Larry Santucci, *A Tale of Two Vintages: Credit Limit Management Before and After the CARD Act and Great Recession*, (Fed Res. Board of Philadelphia, Payment Cards Center Discussion Paper No. 15-01, (2015)).

¹⁹¹ Yiwei Dou et al., *Does Price Regulation Affect Competition? Evidence from Credit Card Solicitations*, (Fed. Res. Board, FEDS Working Paper No. 2019-018 (2019)).

areas do not exhaust direct effects of CARD Act regulation, so there is room for future research to shed light on other important areas affected by the Act. These might include, for example, direct effects of the ability to pay (ATP) requirements on application approvals and credit limit increases, and direct effects of the “fee-harvester” restrictions for first-year account fees on the terms of affected accounts.¹⁹² Nevertheless, the available research considers several important areas in which the Act has had a measureable direct effect.

6.1.1 Credit card pricing

The CARD Act restricted multiple dimensions of credit card pricing, including requirements that: (1) consumers not pay a fee for incurring balances in excess of their credit limit unless they opt in to have such fees charged; (2) penalty fees, such as late payment fees, be “reasonable and proportional,” which can be satisfied by charging fees at or below a specified safe harbor threshold; and (3) interest rates not be increased on outstanding balances except in limited circumstances.¹⁹³ In its 2013 Report, the Bureau called for further academic research to connect these restrictions to changes in the market.¹⁹⁴ In the years since that report, a number of academic studies have attempted to do just that.

OVER-LIMIT FEES

First, several studies have worked to quantify the CARD Act’s direct effects on over-limit fees. Agarwal et al. (2015) estimate that the CARD Act led to a 3.3 percentage point reduction in over-limit fees as a share of balances for consumers with below-prime credit scores. These 3.3 percentage points are approximately 20 percent of total pre-CARD Act fee costs that the authors estimate such consumers paid, or roughly \$36 in over-limit fee savings for each subprime

¹⁹² See, e.g., 12 C.F.R. 1026.51(a)(1)(i), 52(a)(1).

¹⁹³ 15 U.S.C. §§ 1637(i)(1), 1637(k), 1665d, 1666i-1, 1666i-2 (2012); see 2013 Report, *supra* note 5, at 10-13 (for further discussion of these and other particular provisions in the CARD Act).

¹⁹⁴ See *supra* note 172.

account on average per year.¹⁹⁵ For consumers with higher credit scores, the reduction in over-limit fees as a share of outstanding balances was a more modest 0.3 percentage points. This difference reflects both the lower prevalence of over-limit transactions among consumers with higher credit scores and the higher average balances on these consumers' accounts.

To estimate these effects, the Agarwal et al. (2015) study compares changes over time for general purpose consumer credit cards, which are subject to the CARD Act rules, to changes for small business credit cards, which are not. This comparison uses small business cards to help identify the market changes that would have been seen for consumer credit cards in the absence of the CARD Act rules. While a similar analysis appeared in the Bureau's first biennial credit card market report,¹⁹⁶ the Agarwal et al. (2015) study additionally shows the robustness of its results in the framework of a difference-in-differences regression analysis. Furthermore, that analysis controls statistically for differences across cardholder credit scores and differences across credit card issuers, which could otherwise potentially confound such an analysis. This regression analysis also verifies that small business cards are likely to provide a statistically valid comparison group for general purpose consumer cards after the CARD Act, by illustrating that the two groups of cards broadly exhibited similar—in particular, parallel—trends in the period *prior* to the CARD Act.¹⁹⁷

Nevertheless, there are also important caveats to any such comparison of pre- and post-CARD Act outcomes. For one, the comparison relies on pre-CARD Act data that may have been influenced in one way or another by other important factors for which the studies potentially could not fully control. One of these factors could be the credit card industry's anticipation of CARD Act implementation, and also the industry's anticipation of changes to credit card

¹⁹⁵ This 20 percent is estimated using the statistics in Agarwal et al., (2015) at Table III.

¹⁹⁶ 2013 Report, *supra* note 5, at 35-36.

¹⁹⁷ The effects of over-limit fee restrictions are studied in other analyses as well. Nelson (2018) finds that the share of consumer accounts that incurred an over-limit fee each month dropped from roughly 7 percent of accounts per month on average before the CARD Act to nearly zero after the Act. Similar results on the share of accounts incurring over-limit fees appeared in the Bureau's first biennial credit card market report. *See* 2013 Report, *supra* note 5, at 20-23.

regulations that, while superseded by the CARD Act, were proposed and finalized by the Federal Reserve Board over the course of 2007 through 2009.¹⁹⁸ Indeed, commentators on the Agarwal et al. (2015) study have emphasized the importance of such effects (*e.g.*, Durkin et al. (2014)).¹⁹⁹ A second potentially confounding factor is the Great Recession. In difference-in-differences analyses it is difficult to know with certainty whether small business cards and consumer cards would have evolved differently in the absence of the CARD Act because of recession-related changes.

LATE PAYMENT FEES

The Agarwal et al. (2015) and Nelson (2018) research examines other prominent dimensions of credit card pricing. Agarwal et al. (2015) estimate that the CARD Act's restrictions on late payment fees led to a 1.4 percentage point reduction in late fees as a share of balances for consumers with below-prime credit scores. The restrictions once again had a more modest effect, roughly 0.3 percentage points as a share of outstanding balances, for consumers with higher scores.

As before, the Agarwal et al. (2015) study uses regression analysis to show the robustness of its results while controlling for differences across cardholder credit scores and across credit card issuers. After accounting for these factors, the study's results are derived from a comparison between general purpose consumer credit cards and small business credit cards. As in the case of over-limit fees, the study illustrates that late payment fees on consumer and small business cards exhibited similar trends prior to the CARD Act, supporting the validity of small business cards as a comparison group for consumer cards. However, also as before, the study relies on

¹⁹⁸ In February 2010, the Board withdrew the final rule amending Regulation Z adopted in January 2009 and amended Regulation AA to remove the substantive requirements adopted in January 2009 before these final rules became effective. 75 Fed. Reg. 7925 (Feb. 22, 2010). At the same time, the Board issued a new final rule amending Regulation Z in order to implement the provisions of the CARD Act. 75 Fed. Reg. 7658 (Feb. 22, 2010). The requirements of the January 2009 Regulation Z final rule were revised for consistency with the CARD Act and incorporated into the new final rule. The provisions in the January 2009 Regulation AA final rule never took effect; they were superseded by provisions of the CARD Act.

¹⁹⁹ These features of the pre-CARD Act period have also been consistently noted in the Bureau's previous biennial credit card market reports. *See, e.g.*, 2013 Report, *supra* note 5, at 73.

data from a pre-CARD Act period that may have been influenced by anticipation of regulatory changes or by the onset of the Great Recession.

These decreases in late payment fees largely reflect the lower average dollar amount of late fees following implementation of the CARD Act's "reasonable and proportional" standard in August 2010.²⁰⁰ Nelson (2018) also finds that the share of revolving accounts incurring late fees on a monthly basis dropped by roughly 3 percentage points, from 14 to 11 percent, at an earlier date in February 2010, immediately following the implementation of other CARD Act restrictions. This earlier drop could reflect other provisions that took effect in February, including the CARD Act's standardization of the days and times of day at which payments could be due,²⁰¹ or the CARD Act's mandated new minimum payment warning, or other changes in the market following the financial crisis.²⁰²

INTEREST RATE INCREASES

The Agarwal et al. (2015) and Nelson (2018) research also examines the CARD Act's restrictions on a third dimension of credit card pricing, the upward repricing of interest rates on outstanding balances.²⁰³ Nelson (2018) documents that, in the pre-CARD Act period, roughly 50 percent of accounts experienced such an upward repricing at least once a year. After the CARD Act repricing restrictions took effect, the annual incidence of such repricing dropped immediately to less than 10 percent. To focus on types of APR repricing that were restricted by the Act, these estimates exclude APR changes associated with the expiration of a promotional rate, with a delinquency of 60 days or more, or with an increase in an index rate that may determine some credit cards' variable APRs. Estimates of the share of accounts experiencing repricing also appear in Agarwal et al. (2015)²⁰⁴ although without an emphasis on the share of accounts experiencing such a repricing at an annual frequency; the Nelson (2018) analysis indicates that,

²⁰⁰ 15 U.S.C. § 1665d (2012); 12 C.F.R. § 1026.52(b)(1); Comment 52(b)(1)(ii)-2.

²⁰¹ 15 U.S.C. §§ 1637(b)(12)(c), 1637(o), 1666c(a) (2012); 12 C.F.R. §§ 1026.7(b)(11)(i)(A); *see generally* 1026.10(b), (d).

²⁰² 15 U.S.C. § 1637 (b)(11) (2012); 12 C.F.R. § 1026.7(b)(12).

²⁰³ 15 U.S.C. § 1666i-1, 1666i-2 (2012); 12 C.F.R. § 1026.55.

²⁰⁴ *See also* 2013 Report, *supra* note 5, at 29.

when accounts are viewed over the course of an entire year, such repricing affected roughly one-half of revolving accounts. However, as already emphasized above, the pre-CARD Act period studied in both the Nelson (2018) and the Agarwal et al. (2015) analyses may have exhibited above-average rates of repricing relative to earlier time periods, *e.g.*, due to the onset of the Great Recession or issuers' anticipation of regulatory changes that were proposed prior to the CARD Act.

The Nelson (2018) analysis also examines how the CARD Act's repricing restrictions may have affected the responsiveness of interest rates to credit risk. With issuers now generally restricted from increasing the interest rate on outstanding balances on accounts with worsening default risk over time, the study examines how that change has affected the degree to which price changes reflect changes in underlying default risk. It finds that whereas APRs in the pre-CARD Act period increased on average by 26 basis points for every 10 points decrease in credit score after origination, this gradient of pricing with respect to changes in risk declined post-CARD Act to an average of 7 basis points increase in APR for every 10 points decrease in credit score. The CARD Act's restrictions on interest rate increases on outstanding balances, therefore, affected not just changes in interest rates on average, but also the degree to which interest rates responded to changes in particular account characteristics such as credit score.

6.1.2 Credit card payments

Separate from the CARD Act's restrictions on credit card pricing, the Act and its implementing regulation also introduced new disclosure requirements. Some academic research has focused on one of these disclosures in particular: mandated monthly statement information about the total cost of paying only the minimum payment and about the amount of time required to repay the entire current balance when making only minimum payments. This disclosure also includes information about the size of the monthly payment necessary to pay the outstanding balance in 36 months, referred to below as the "36-month payment amount," and how the total interest cost of repaying the outstanding balance by paying the 36-month payment amount would

compare to the cost of repaying the outstanding balance by paying only the minimum payment.²⁰⁵

The available research provides somewhat conflicting evidence on how these disclosures affect repayment behavior. Differences across studies also indicate there may be variation in how different consumers respond to these disclosures. There is evidence that these disclosures may encourage faster debt repayment for some consumers while leading some other consumers, who would otherwise choose to repay their balance more quickly, to reduce their rate of repayment.

Jones et al. (2015) compare changes in credit card payment over time for two groups that plausibly were differentially affected by the CARD Act's disclosure requirements. The first group, consumers who pay their bills online, is presumed to be less likely to see the new CARD Act-mandated disclosures because these disclosures are not required to appear in an online bill-pay interface. The second group, consumers who do not use electronic bill payment, may be more likely to see the new disclosures because the disclosures are included on billing statements sent by mail.²⁰⁶

Jones et al. (2015) estimate that the second group—those plausibly more exposed to the new disclosures by virtue of paper bill pay—became 6.5 percentage points more likely to pay their credit card bill in full relative to those who use online bill pay.²⁰⁷ This effect is estimated in a difference-in-differences regression analysis that also controls for demographic, geographic, and seasonal differences that could otherwise confound the results. Reinforcing the validity of online bill pay users as a comparison group for paper bill pay users, the study also notes that these

²⁰⁵ 15 U.S.C. § 1637(b)(11)(B) (2012). In cases where the 36-month payment amount is less than the minimum monthly payment, no information about 36-month repayment is shown. 12 C.F.R. § 1026.7(b)(12)(F)(2)(ii).

²⁰⁶ The disclosures are also included in electronic copies of billing statements, and these electronic statements indeed may be seen by consumers who use online bill pay. Furthermore, consumers who *pay* their bills online may nevertheless receive paper copies of their bills by mail. However, past Bureau work has indicated that at least one-half of consumers who use online bill pay also view their statement document at any point in a given quarter. *See* 2015 Report, *supra* note 5, at 134. This finding at least in part supports the premise that the two groups studied in Jones et al. (2015) could be differentially affected by the CARD Act's disclosure requirements.

²⁰⁷ This increase in the prevalence of payment in full may reflect decreases in either the prevalence of late payments, or the prevalence of timely payments of less than the total balance on the card, and the authors do not distinguish between these two possible mechanisms.

groups exhibited similar trends in repayment behavior in the pre-CARD Act period, while the divergence in these two groups' behavior occurred tightly around the month when the new disclosure requirements took effect.

One important caveat to this study's results is that the survey is asked of new respondents each month, so changes over time in average responses could potentially be the result of changes in the *composition* of consumers who choose to respond to the survey, rather than changes to consumer behavior; techniques to correct for non-response over time may be unable to completely correct for such issues. Additionally, to interpret the February 2010 divergence between online bill-pay users and paper bill-pay users as the effect of the CARD Act *disclosures* per se, the authors rely on there being no other substantial differences between these two groups' responses to other CARD-Act provisions implemented at the same time. Such an assumption is difficult to test in practice.

Several other studies have examined the effects of the CARD Act's minimum payment disclosure requirements by experimentally showing different disclosure formats to survey respondents and then asking respondents how much they would choose to repay under a hypothetical scenario for credit card usage. For example, respondents could be asked to imagine that they have a certain credit card balance at a certain interest rate, then be shown one of several minimum payment disclosures, and be asked to choose a hypothetical repayment amount.

In one such study, Hershfield & Roese (2014) reach different conclusions about the CARD Act's minimum payment disclosures relative to Jones et al. (2015) and highlight the potential for these disclosures to induce slower debt repayment by "anchoring" consumers to smaller payment amounts than they otherwise would have chosen. Based on survey respondents' answers to such hypothetical scenarios and disclosures, the authors conclude that one feature of the CARD Act's new disclosures—in particular the disclosure of the 36-month payment amount—leads some consumers to repay more slowly than they otherwise would. Consistent with this effect appearing only for some consumers and not for others, the authors find in their series of surveys that this effect is statistically significant only when the payment suggested by the 36-month disclosure is small relative to the payment amount consumers would have otherwise chosen.

Other studies by Salisbury and co-authors (Salisbury & Zhao (2018); Salisbury (2014); Navarro-Martinez et al. (2011) and by Soll et al. (2013)) also provide survey respondents with hypothetical scenarios for credit card usage and experimentally vary the disclosures shown to

respondents. The earliest of these studies, by Navarro-Martinez et al. (2011) finds that providing any minimum payment requirement tends to lower the amount that survey respondents choose. They attribute this to an “anchoring” effect whereby presenting the minimum payment amount causes consumers to focus on a lower number (*i.e.*, the minimum payment amount) than they otherwise do when shown only the hypothetical outstanding balance on the account. However, the study also finds that adding the 36-month payment amount to the disclosure, as required in the CARD Act, partially offsets this effect and raises repayment amounts.²⁰⁸ Consistent with this effect, Soll et al. (2013) likewise find that adding the 36-month payment amount increases some consumers’ ability to accurately predict how long it may take to repay a credit card balance. These findings are thus somewhat in tension with the results in Hershfield & Roese (2014), which had found that adding the 36-month payment amount decreases some consumers’ repayment speed.

The most recent two of these studies, by Salisbury (2014) and Salisbury & Zhao (2018), find results that are intermediate between the Navarro-Martinez et al. (2011) results and the Hershfield & Roese (2014) results. Again using survey respondents’ answers to hypothetical credit card repayment scenarios, Salisbury (2014) and Salisbury & Zhao (2018) generally find that disclosing the 36-month payment amount both increases *and* decreases consumers’ payment rates: that is, some consumers pay less when faced with the 36-month payment amount than they otherwise would, and other consumers pay more than they otherwise would. Across the two studies, roughly an equal share of consumers increase their payment amount and decrease their payment amount.

An important caveat to many of these studies is that the use of hypothetical questions in survey research may capture different behaviors and responses than “real world” consumers exhibit when facing the CARD Act’s actual disclosures. For example, the effect of anchoring to repayment amounts shown in hypothetical disclosure statements may be different when consumers face real-world financial incentives to choose the repayment amount that is best for their own actual circumstances. These hypothetical studies’ methodologies are thus in contrast

²⁰⁸ One caveat to this latter result is that it is only marginally statistically significant, perhaps due to small sample sizes available in the study.

with the Jones et al. (2015) study discussed above, which did use such “real world” data to examine the CARD Act disclosures’ effects.

The Agarwal et al. (2015) study also examined the effect of the CARD Act’s 36-month disclosure in “real world” data, finding that the share of accounts paying exactly the 36-month payment amount increased by 0.4 percentage points for general-purpose consumer cards at the time the new disclosure requirement took effect; this estimate is markedly smaller than the corresponding share in many of the studies above that used hypothetical scenarios to examine consumer behavior. As in the analyses previously discussed from Agarwal et al. (2015), this effect is estimated in a difference-in-differences regression relative to small business credit cards, which were not covered by the CARD Act’s new disclosure requirements. However, perhaps reflecting the divergence in results among other research studies in this area, Agarwal et al. (2015) note that it is difficult to discern statistically whether this 0.4 percentage-point difference is due to consumers who would have paid larger amounts then choosing to pay less, or due to consumers who would have paid smaller amounts then choosing to pay more, or perhaps both.

In sum, existing research appears split on the question of whether the CARD Act’s minimum payment disclosures led to faster debt repayment, and for whom. Further research appears necessary to answer this question more definitively and to analyze other outcomes not examined in the studies available to date.

6.1.3 Credit card-holding among young consumers

Another focus of academic research has been the CARD Act’s effects on credit card-holding among young consumers. This focus reflects the CARD Act’s requirement, as implemented by Regulation Z, that in order for an issuer to open a credit card account for a young consumer—defined as being 20 years old or younger—the consumer must either demonstrate her independent ability to pay for the charges they could incur on the card, or have a co-signer who is at least 21 years old and either can demonstrate the independent ability to repay or can

demonstrate a reasonable expectation of access to the necessary income or assets to repay.²⁰⁹ The CARD Act also has several other provisions that may affect credit card-holding among the young, such as restrictions on credit card marketing activities near college campuses.²¹⁰

Debbaut et al. (2016) estimate the direct effects of these young-borrower restrictions by comparing consumers who were affected by the CARD Act's young-consumer rule at slightly different ages. By measuring how card-holding rates for these cohorts changed over time as the CARD Act restrictions took effect, the authors estimate that the CARD Act's young consumer-rule reduced rates of credit card-holding among individuals under 21 years old by 8 percentage points in the short term, representing a roughly 15 percent fall from pre-CARD Act levels. Their difference-in-differences analysis also controls for age-specific and year-specific differences in credit card holding rates, which helps address potential confounding factors in the analysis.

Evidence suggests the rule's allowance for co-signers in the young-consumer rule enabled some, but not all, young consumers who otherwise would have been precluded from opening a credit card account to do so through a co-signer. Debbaut et al. (2016) found that, while the overall share of young consumers holding credit cards fell, young consumers who did hold credit cards became more likely to have a co-signer on their credit card. As shown in Figure 1, among various age cohorts the share of co-signed cardholding among credit card holders was roughly constant at about 8 percent between 2000 and 2008. When the CARD Act's young-consumer rule took effect in 2010, the rate of co-signed cardholding increased for exactly the three age groups covered by the young-consumer rule—those aged 18, 19, and 20 years old.²¹¹ This short-run effect is apparent in Figure 1 below. The decrease seen thereafter, however, suggests the need for further research on the longer-run effects of these restrictions.

Debbaut et al. (2016) acknowledge that their estimates may be sensitive to several confounding factors. These include recession-related labor market disruptions that may affect specific cohorts in specific years, changes in the population of consumers included in credit bureau data,

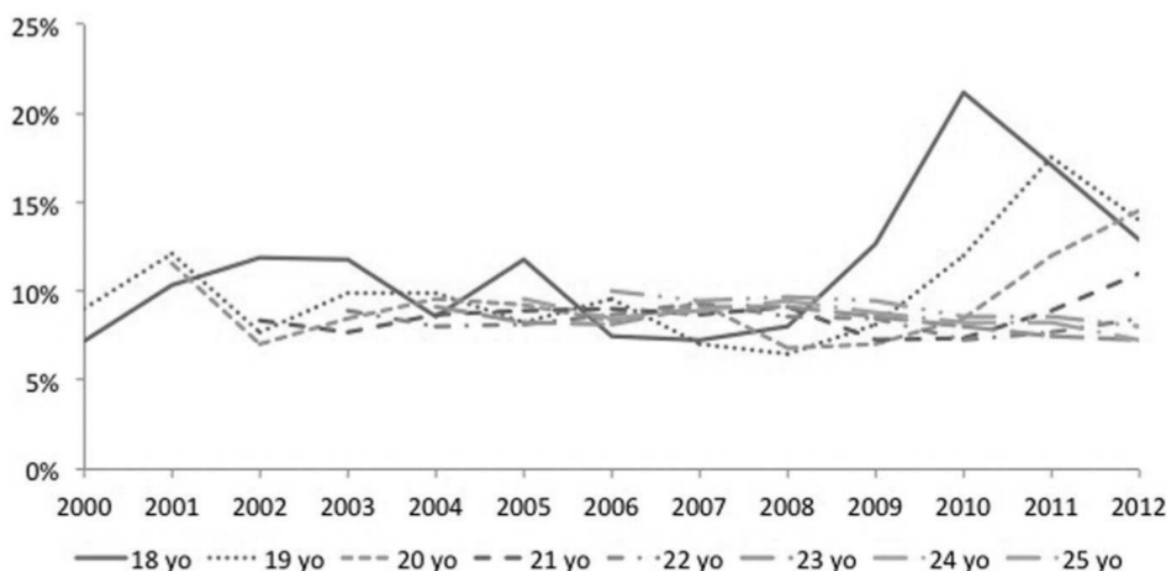
²⁰⁹ 15 U.S.C. § 1637(c)(8) (2012); 12 C.F.R. § 1026.51(b)(1).

²¹⁰ 15 U.S.C. § 1650(f)(2) (2012).

²¹¹ The increases appear sharpest for those aged 18, though this group also exhibited some increase in the period prior to the young-consumer rule taking effect, perhaps related to the onset of the Great Recession.

and the influence of potential anticipatory behavior by consumers or credit card issuers in 2009 in the period between the CARD Act's passage and its implementation. Closer examination of the role of authorized users in extending credit card access to young consumers—for example, an older person such as a parent may make a young consumer an authorized user of their card—may also help with interpreting Debbaut et al.'s results.

Figure 1: SHARE OF CONSUMERS WITH A CO-SIGNED CREDIT CARD BY AGE AND YEAR (REPRODUCED WITH PERMISSION)²¹²



6.2 Overall effects

This section considers research on the overall effects of the CARD Act. As emphasized in academic research on the CARD Act, economic theory on pricing, and in the Bureau's previous biennial card market reports, the Act's effects may include unintended consequences beyond its direct effects, as market participants potentially respond to regulation in one part of the market by changing their behavior in another. To take one example, credit card issuers might adjust APRs offered at account origination in response to the Act's restrictions on increasing APRs on

²¹² Figure reproduced with permission from Wiley, in Debbaut et al. (2016).

outstanding balances later; this is an example of an indirect and potentially unintended consequence of the Act because the Act and its implementing regulations do not directly govern the level of the APRs that may be offered at origination.

This review of research on such overall effects is organized into two subsections. The first reviews theoretical analyses and economic modeling that illustrate how and why such consequences may appear in other parts of the market in response to the Act. The second reviews empirical research that assesses, using a variety of data sources, which of these theoretical effects appear to have been realized and to what extent.

6.2.1 Theoretical analyses

A range of studies have used theoretical analyses and economic models to understand the CARD Act's potential overall effects. Reviewing these analyses helps illuminate how the Act's overall effects may emerge in a market like the credit card market, shedding light on the next subsection's review of more empirical, data-driven research.

In particular, these theoretical analyses highlight how the Act's overall effects depend on several underlying features in the credit card market. These features include whether the market is imperfectly competitive, whether credit card issuers have private information about their account holders (and, if so, what type of information), and whether credit card pricing is fully “salient” to consumers. This subsection first reviews research that examines the CARD Act's theoretical effects in a credit card market that is assumed to be perfectly competitive. Second, it reviews research on a market that is assumed to be imperfectly competitive.

PERFECT COMPETITION

In one theoretical analysis of the CARD Act in an assumed perfectly competitive credit card market, Pinheiro & Ronen (2016) emphasize how the CARD Act's overall effects may be influenced by the presence of information asymmetries such as adverse selection. In this setting, the authors show theoretically that the CARD Act's restrictions on increasing the interest rate applied to an outstanding balance can lead to a combination of higher initial interest rates for new cardholders and lower credit limits. The analysis highlights how the CARD Act's restrictions on raising interest rates for outstanding balances can make it more difficult to charge different pricing to consumers who are more or less risky from a lender's perspective, given how information asymmetries can make some of this risk unknown for a credit card issuer around

the time of account origination.²¹³ The “pooled” pricing that results from these restrictions then leads to market inefficiencies, as some borrowers face pricing that is not commensurate with their risk and then borrow more or less than the efficient amount; for some consumers this increase in pricing is effectively a reduction in credit supply. In Pinheiro & Ronen’s (2016) perfectly competitive setting, therefore, the inefficiencies that result from the CARD Act’s restrictions emerge in equilibrium as a result of the credit card market’s information asymmetries.

Hong et al. (2018) analyze a similar setting with perfect competition, albeit with different information asymmetries. In particular, the authors consider the feature that credit card issuers may have private information about their borrowers that competing credit card issuers may not know, such as non-public indicators of default risk. This informational advantage allows an issuer to charge higher prices to its existing borrowers—in particular to its *low*-risk existing borrowers—than it otherwise could charge those borrowers if its competitors were able to identify which of its existing borrowers had low risk.²¹⁴ The prospect of being able to charge these higher prices after learning about borrower risk then entices issuers to offer low prices at account origination *before* learning such information. These low prices on new accounts, understood as promotional introductory interest rates, play a central role in the analysis. Their key finding is that the CARD Act’s restrictions on interest rate increases for outstanding balances make it more difficult for credit card issuers to charge higher prices on existing accounts, which reduces issuers’ incentives to offer low prices at the time of account origination. The CARD Act, then, has the potential in this setting to lead to higher interest rates for promotional APRs, even though the Act and its implementing regulations do not directly regulate the level of interest rates offered as promotional APRs.

²¹³ Asymmetry implies that this information is known on one side of the market and not the other. To be precise, in Pinheiro & Ronen’s (2016) model, the asymmetry actually arises shortly after origination: that is, differences in consumer risk become known to the consumer after origination but before the consumer begins borrowing on the card. Of course, in the actual credit card market, information asymmetries may also exist at the time of origination as well.

²¹⁴ The mechanism for this higher pricing arises in market equilibrium. Intuitively, while a lender’s competitors are unable to set prices that are perfectly tailored to the risk on that lender’s accounts, each lender is able to set such tailored prices on its own accounts. Pricing on outside offers then allows each issuer to charge a higher price than it otherwise could to its own lower-risk existing cards.

The results in Hong et al. (2018) echo the findings from Pinheiro & Ronen (2016). An important commonality between the analyses is that the credit card market is assumed to be perfectly competitive. That is, credit card lending is deemed sufficiently “commoditized” for issuer profits to be fully competed away through, for example, discounts on introductory interest rates that serve as a loss leader for later, higher pricing.

Several caveats are relevant in interpreting these analyses. Both analyses illustrate how the credit card market is likely to respond to the CARD Act *given* some premises, such as perfect competition. If the premises that the authors use for their analysis do not accurately describe the market, then the conclusions may change. As is common in theoretical economic work, these analyses also require simplifying assumptions to make the model tractable to analyze. For example, theoretical analyses of credit markets often assume, as these two studies do, that borrowers are of only two “types,” each having a different risk of default but an identical demand for credit. In reality, credit markets may be more complex. Further research may be needed to understand the consequences of these complexities.

IMPERFECT COMPETITION

The alternative case of an imperfectly competitive credit card market is studied in Nelson (2018). This analysis considers credit cards as potentially differentiated products, so that credit card issuers have the potential to earn profits because of brand loyalty or because they offer features that competing cards do not. It also allows for credit card issuers to have private information about their existing customers, as in Hong et al. (2018), though this private information can comprise information not just about borrowers’ riskiness, but also about their sensitivity to price. Nelson (2018) demonstrates that in such a setting, it is possible for restrictions such as those in the CARD Act to lead to lower prices overall for consumers. The key mechanism for this result is the feature that credit card issuers are considered to potentially have private information about borrowers’ price sensitivities that is revealed after origination, which potentially generates market inefficiencies through markups on price-insensitive borrowers.²¹⁵ However, whether the CARD Act’s restrictions do in fact lead to lower overall

²¹⁵ Such price discrimination per se is not necessarily inefficient. However when consumers choose both whether to borrow (extensive margin) and how much to borrow (intensive margin), price discrimination in marginal prices such as APRs can result in inefficient quantities—with outcomes analogous to a reduction in credit supply.

prices in the Nelson (2018) model depends on factors such as how close to perfectly competitive the market is and how much private information credit card issuers acquire over time about their customers' default risk and demand for credit.

Considering different potential features of the credit card market, Agarwal et al. (2015) also show theoretically that the CARD Act can lead to lower pricing in an imperfectly competitive market. Rather than focusing on credit card issuers' private information in such a setting, Agarwal et al. (2015) emphasize the role of pricing that may not be fully salient to consumers. One applied example, the case of over-limit fees, can illustrate this. The authors show theoretically that if over-limit fees are less salient to consumers than other price dimensions, and if the market is imperfectly competitive, then other price dimensions will adjust less than would fully offset the decrease in over-limit fees. In the context of imperfect competition and imperfectly salient fees, restrictions such as those in the CARD Act can indeed lower the all-in cost of credit, as the offsetting effect in other price dimensions such as interest rates would not fully overwhelm the direct effect of lower fees.²¹⁶

Similar caveats apply to Nelson (2018) and Agarwal et al. (2015) as were noted above for Hong et al. (2018) and Pinheiro & Ronen (2016). These analyses only show what effects of the CARD Act are likely to emerge *if* the premises of the models, such as behavioral assumptions²¹⁷ or imperfect competition, accurately describe the credit card market. Furthermore, even if these premises are consistent with the reality of the market, economic models frequently need to make simplifying assumptions that may overlook important complexities in the market.

6.2.2 Empirical analyses

The theoretical research reviewed above prompts the empirical question of whether the Act's restrictions *in fact* resulted in unintended offsetting consequences elsewhere in the market, in

²¹⁶ See Agarwal et al. (2015)'s online appendix, at 4. The presence of asymmetric information can also affect the amount of offset. If the credit card market is adversely selected with respect to its salient prices, such that consumers willing to borrow at higher salient prices also tend to have higher default risk, then the amount of offset from a restriction on a non-salient price would be greater than it would be without such adverse selection.

²¹⁷ See Durkin et al. (2014) (discussing salience and the lack of empirical evidence to support it and related behavioral assumptions). See also Jonathan Zinman, *Consumer Credit: Too Much or Too Little (or Just Right?)*, J. of Legal Stud. (2014).

particular some combination of increases to other dimensions of pricing or decreases in credit supply. Consequences such as price increases could take many forms, including higher initial APRs, less availability of promotional APRs, or increases in other fees such as annual fees. Similarly, reductions in credit supply could take the form of fewer or smaller credit limit increases, lower initial line assignments, fewer direct mail offers and offers through other marketing channels, and tighter approval criteria. This subsection reviews empirical research on these questions, organized by whether the research pertains to credit card pricing or credit availability.

CREDIT CARD PRICING

This subsection reviews empirical research on the CARD Act's overall effects on credit card pricing. Economic theory predicts that when market prices are prevented by law or regulation from adjusting to market conditions, such restrictions on price typically create unintended consequences such as shortages or surpluses. The central question in the CARD Act research has been whether or not the Act's direct effects on some dimensions of credit card pricing, such as over-limit fees, may have also led to unintended consequences on other price dimensions, e.g., introductory interest rates or annual fees. The extent of such consequences determines the CARD Act's overall effects on the cost of credit card borrowing and ultimately the CARD Act's effect on consumer welfare. Efforts to answer this question help identify the net effect of the Act for consumers and may also provide insight about what mechanisms, such as the competitiveness of the credit card market, led the effects of the Act to play out as they did.

The Agarwal et al. (2015) study focuses on such offsetting effects. In particular, the authors ask whether the CARD Act's direct effects on some price dimensions, such as late fees and over-limit fee restrictions, were offset by changes in other price dimensions, and whether the overall effect of the Act is therefore a net decrease or increase in the cost of card credit for consumers. Again using a difference-in-differences regression analysis that compares general-purpose consumer cards with small business cards, Agarwal et al. (2015) find that the amount of such offset in interest rates for borrowers is on average approximately zero. The authors reject, with a high degree of statistical confidence, the hypothesis that any such offset for subprime consumers was larger than 3.7 percentage points, relative to a total estimated direct effect that saw fees decrease by 5.3 percentage points for this population. The authors find that even smaller offsetting effects can be ruled out statistically for prime accounts, although prime accounts also saw lower estimates of the Act's direct effects on fee costs. However, as noted earlier, an extremely important caveat to this study's empirical findings is that the pre-CARD Act period used as a

baseline for comparison in the study's difference-in-differences strategy may already have shown some of the effects of regulations similar to those in the CARD Act, if credit card issuers changed pricing in anticipation of potential upcoming regulatory changes.²¹⁸ If, as some critics have argued, card issuers did change their behavior in anticipation of potential upcoming regulations, then Agarwal et al.'s findings would be less persuasive than otherwise presented.²¹⁹

Nelson (2018) also examines the CARD Act's overall effect on credit card pricing. While the results are largely consistent with the results in Agarwal et al.'s (2015), they also suggest that the CARD Act had a range of different effects for consumers of different types. In particular, the study finds evidence of adverse consequences of the Act for some consumers—for example, some types of *relatively* low-risk subprime consumers may have faced higher pricing as a result of the Act, even as consumers at all credit scores faced, on average, lower prices.

To estimate these differential effects across consumer types, Nelson (2018) develops a quantitative model of the credit card market that includes many of the features discussed in the preceding section's review of theoretical research. After quantifying the importance of these features, such as imperfect competition and issuers' private information, in pre-CARD Act data, the analysis then simulates the CARD Act's pricing restrictions in the model and evaluates the restrictions' overall effects for different types of consumers. Nelson (2018) finds that even for a consumer who faces higher prices after the CARD Act, there is a reasonably high chance that the consumer becomes, at a later date, someone who benefits from lower prices under the Act—for example, a consumer with only modest demand for card credit may later have more intensive credit demand. These consumers benefit under the Act from insurance against higher pricing in the future, so that on net, Nelson's (2018) analysis finds these consumers' surplus in fact rises as a result of the Act. Other consumers who do not face higher prices after the Act have even larger surplus gains. On average across all consumers, the study finds that consumer surplus roughly doubles from the CARD Act pricing restrictions.

²¹⁸ For further discussion of these proposed regulatory changes, see footnote 182.

²¹⁹ Agarwal et al. (2015) suggests that their empirical findings is consistent with a model in which fees are not salient to consumers. This behavioral model has been the focus of criticism by commentators, such as Durkin et al. (2014).

As before, it is important to caveat these conclusions. In particular, Nelson’s (2018) analysis relies on a specific model of credit card demand and market competition in order to understand how the market has responded to the CARD Act’s pricing restrictions. This model may not fully capture important aspects of how consumers value various credit card features. As noted earlier, both Nelson’s (2018) and Agarwal et al.’s (2015) analyses may also be confounded by issuers’ anticipatory behavior in the pre-CARD Act period, or, in Agarwal et al.’s (2015) case, by aspects of the Great Recession that may have affected consumer credit cards differently than small business credit cards during the period that the CARD Act took effect.

Other recent research by Dou et al. (2019) examines how credit card issuers changed their pricing behavior after the CARD Act. Rather than focusing on the *level* of pricing as other analyses have done, Dou et al. (2019) study how credit card issuers respond differently to changes in their competitors’ pricing—for example, to what extent one issuer cuts its rates after another issuer does so. The study uses data on interest rates in direct mail offers for new credit card accounts, leveraging the same comparison of consumer credit cards and small business credit cards, before and after the CARD Act, as was used in the Agarwal et al. (2015) study. By examining “local” credit card markets at geographic levels such as the county, the authors conclude that card issuers’ pricing has become less responsive to competitors’ price changes in the post-CARD Act period. To interpret these results, it is valuable to note that this change in behavior could be consistent with credit card pricing becoming either higher or lower relative to cost; for example, such price responsiveness could fall in an environment where pricing has also fallen relative to cost. Nevertheless, these changes in pricing behavior may point to additional unintended consequences of the CARD Act that may shed light on the Act’s overall effects.

CREDIT CARD AVAILABILITY

This subsection considers empirical research on the CARD Act’s overall effects on credit card availability. While these effects are considered separately from the pricing effects studied in the preceding subsection, it should be noted that the distinction between pricing effects and availability effects can be difficult to draw. For example, firms may respond to the restrictions imposed by the CARD Act by raising prices for some consumers beyond the level some consumers would be willing to accept or by reducing the amount of credit they offer to some segments by issuing lower credit lines or approving fewer applications.

In work by Han et al. (2018), the authors suggest that the CARD Act may have led to less frequent direct mail offers for new credit cards, in particular for consumers with subprime credit scores. Using an approach similar to the difference-in-differences regression framework in

Agarwal et al. (2015), this study compares credit card offers with offers for similar loan products such as corporate cards, personal loans, and auto loans over time. On net, the authors estimate that the monthly probability of receiving a credit card direct mail offer fell by roughly 6.6 percentage points for consumers with subprime credit scores relative to the probability of receiving an offer for other products and relative to prime consumers, with a discernible and persistent drop in the estimated relative probability of offer receipt that begins around the time of the CARD Act's passage. This result is consistent with the evidence in Nelson (2018) that the Act may have had adverse consequences for some types of subprime consumers.

The Han et al. (2018) results are similar to what would be predicted by some of the theoretical arguments discussed in Section 6.2.1 above, especially theoretical arguments that assume a perfectly competitive credit card market. This study also has the advantage of using multiple comparison groups for subprime card credit and of having data from a longer pre-CARD Act period than has been available in many other studies, thereby mitigating the risk that anticipatory effects may impact the analysis. Nevertheless, similar to other studies reviewed in this section, some caveats also apply in interpreting the Han et al. (2018) results. As discussed in prior iterations of this card market report, direct mail offers for credit cards became less prevalent over the post-CARD Act period relative to other account acquisition channels, such as online marketing. If these trends were more pronounced for subprime than for prime accounts for reasons unrelated to the CARD Act, then such changes could affect the study's estimates; similar issues could arise if comparison groups such as auto loans exhibited divergent trends between subprime and prime direct mail volumes in the post-CARD Act period for reasons particular to these markets.

Other studies have found correlational evidence consistent with the cautionary results in Han et al. (2018). Jambulapati & Stavins (2014) document an increase in credit card account closures that coincided with both the CARD Act and the Great Recession. Santucci (2015) compares different vintages, or origination years, of credit card accounts from one period prior to the CARD Act and prior to the Great Recession, and one period subsequent to the CARD Act and subsequent to the Great Recession. Santucci (2015) finds that the latter vintage had lower initial credit lines and received smaller net increases in credit limits in dollar terms. Elliehausen & Hannon (2018) document that the decrease in the number of open credit card accounts during this time period was more pronounced for consumers with subprime credit scores. When discussing this correlation, Elliehausen & Hannon (2018) argue that a greater decrease in subprime credit in the period around the Great Recession can be interpreted as evidence of the CARD Act's adverse effects.

Agarwal et al. (2015) also examine the CARD Act's effects on measures of credit card availability. Their difference-in-differences regression analysis finds that the Act resulted in small to zero effects on credit limits, for existing accounts, in the short term. The estimates for new accounts are less conclusive. For new accounts issued to consumers with subprime credit scores, the estimates are too statistically imprecise to be conclusive. For consumers with prime credit scores, the available evidence suggests that general purpose consumer cards and small business cards may have exhibited different trends in initial credit lines in the period prior to the Act. These divergent trends make estimates from the difference-in-differences strategy of comparing these two groups over time more difficult to interpret.

Across the methodologies and analyses reviewed in this section, a consistent theme is the challenge of disentangling the *effects* of the CARD Act itself, rather than the effects of other market changes such as the Great Recession. Overall, the scholarship reviewed in this section suggests that the CARD Act's effect on consumer welfare is mixed.

7. Credit card debt collection

As part of its review of the practices of credit card issuers, the Bureau surveyed a number of large issuers in order to better understand practices and trends in credit card debt collection between 2017 and 2018. These same large credit card issuers were also surveyed for the Bureau's 2015 Report and 2017 Report. Findings from the Bureau's current survey (the MMI dataset) are reported throughout this section.

First, this section provides background information on the overall market for consumer debt collection. Second, this section reviews issuer policies and practices with respect to resolving delinquent debt prior to charge-off, including communication practices, use of first-party and third-party collectors, and loss mitigation programs. Third, this section reports on the recovery of debt following charge-off, including metrics on recovery of charged-off debt through various channels, such as third-party agency collections, debt sale, and litigation. Finally, this section highlights selected key topics in credit card debt collection such as the growing number of borrowers engaging with for-profit debt settlement companies.

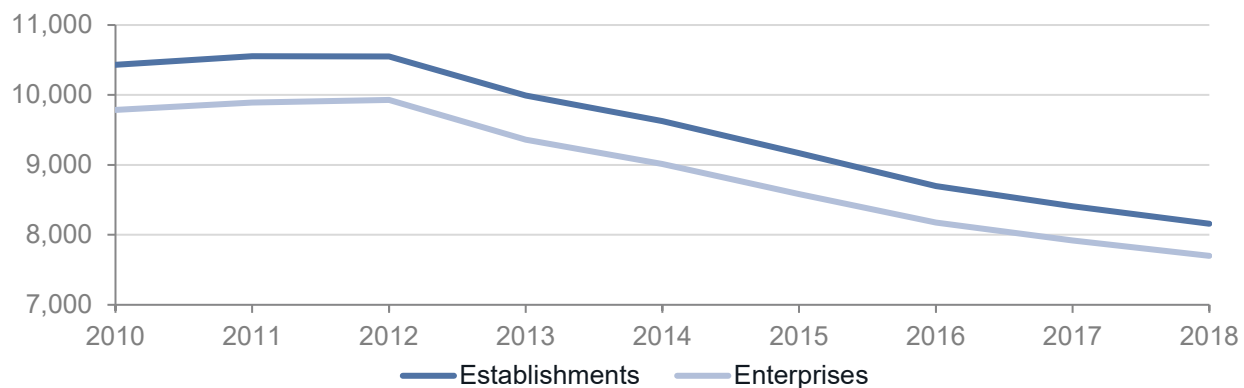
7.1 Debt collection markets

Most large credit issuers use their own employees and resources to collect some portion of their delinquent debts. Many creditors also engage third parties to collect debts on their behalf or sell uncollected debts to debt buyers, who then collect the debts themselves or through a third party. Debt collection industry revenue has declined in recent years, decreasing from an estimated \$13.5 billion in 2013 to \$11.5 billion in 2018.²²⁰ The third-party debt collection industry now employs roughly 118,000 workers, representing an overall reduction of nearly 10,000 jobs in the last three years.²²¹ The number of debt collection firms has also continued to decline as the result of industry consolidation, as can be seen in Figure 1.

²²⁰ Anna Amir, *Debt Collection Agencies in the US*, IBISWorld (Dec. 2018).

²²¹ *Id.*

Figure 1: DEBT COLLECTION INDUSTRY SHRINKAGE BY ENTERPRISES AND ESTABLISHMENTS, 2010-2018 (IBISWORLD)²²²



According to a nationally representative survey conducted by the Bureau between December 2014 and March 2015, one-in-three consumers with a credit report reported having been contacted by a debt collector or creditor about a past-due debt in the preceding year. Forty-four percent of these consumers reported being contacted about a credit card debt.²²³

More recent data drawn from the CCP²²⁴ indicate that in 2018 roughly 28 percent of consumers with a credit file had a “collections tradeline” (*i.e.*, an account that appears on a consumer’s credit report as a debt in collections) listed for a debt assigned to a third-party collector. Of these

²²² “Enterprises” refers to the number of debt collection businesses in operation. Each enterprise may have multiple locations, which explains why “establishments” is a larger figure.

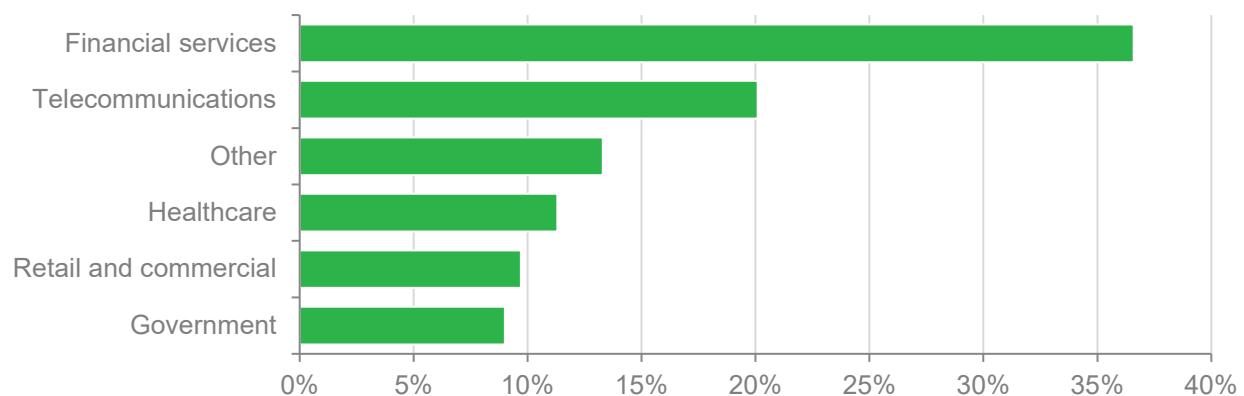
²²³ Bureau of Consumer Fin. Prot., *Consumer Experiences with Debt Collection: Findings from the CFPB’s Survey on Consumer Views on Debt*, (Jan. 12, 2017), https://www.consumerfinance.gov/documents/2251/201701_cfpb_Debt-Collection-Survey-Report.pdf. The total number of consumers with accounts in collection may be understated because it is based on consumer credit reports, which do not account for utilities, rent, retail, and other debts that are not reported to the three large credit reporting agencies. *See, e.g.*, Bureau of Consumer Fin. Prot., *Key Dimensions and Processes in the U.S. Credit Reporting System: A Review of How the Nation’s Largest Credit Bureaus Manage Consumer Data*, (Dec. 2012), available at <https://www.consumerfinance.gov/data-research/research-reports/key-dimensions-and-processes-in-the-u-s-credit-reporting-system>.

²²⁴ See Section 1.3.1 for more information on the CCP data source.

consumers, roughly 30 percent had at least one credit card tradeline assigned to a third-party debt collector. However, the actual share of consumers with credit card debt in collections may be much higher, as issuers may provide credit reporting data on delinquent consumers directly to credit bureaus rather than allowing their third-party collection agencies to furnish these tradelines.

Consistent with the Bureau’s 2017 Report, debt from the financial services segment continues to constitute the largest share of third-party debt collection revenue—nearly 37 percent in 2018.²²⁵ Figure 2 breaks down the \$11.5 billion in third-party debt collection revenue by type of debt. Telecommunications, medical, retail, and government debt are also significant drivers of debt collection industry revenue.

Figure 2: DEBT COLLECTION MARKET SEGMENTS BY SHARE OF REVENUE, 2018 (IBISWORLD)



A large majority of debt collection industry revenue is generated by firms contracting with creditors to collect their debts on a contingency fee basis. In contingency fee collections, the creditor and the collector each receive a share of the amount collected. The Bureau’s current survey on credit card issuers’ debt collection practices found that, on average, respondents placed 28 percent of their overall charged-off inventory with third-party collectors in 2018, with almost all employing a contingency fee model.

²²⁵ 2017 Report, *supra* note 5, at 305.

Another significant source of debt collection revenue is debt sales, where a debt buyer purchases accounts (or portfolios of accounts) from the original creditor or other debt buyers and then generally seeks to collect on the debt, either themselves or through third-party debt collectors. If debt buyers have used third-party debt collectors to recover for them, the debt buyers typically pay a share of the amount collected to the third-party debt collectors.

In May 2019, the Bureau published a Notice of Proposed Rulemaking (NPRM) proposing to amend Regulation F, 12 C.F.R. part 1006, which implements the Fair Debt Collection Practices Act (FDCPA), to prescribe Federal rules governing the activities of debt collectors covered by the FDCPA.²²⁶ The proposal focuses on debt collection communications and disclosures and also addresses related practices by debt collectors.

7.2 Collections prior to charge-off

This section begins with a review of surveyed issuers' policies, procedures, and practices with respect to resolving delinquent debt prior to charge-off. All respondents conducted some collections activities in-house prior to charge-off. An issuer's internal collection efforts may include such methods as calling, texting, emailing, and sending letters to the consumer. Most issuers also supplemented the activities of their in-house agents with the resources of first-party collectors: outside collectors who collect on delinquent debt while working under the name and the direction of the creditor. As an alternative to internal collection and recovery, an issuer may also turn to a third-party agency to collect in the agency's own name. More than one-half of the surveyed issuers worked with third-party collectors prior to charge-off.

In response to the Bureau's current survey, issuers provided information regarding restrictions on contacting consumers, use of electronic communications (*e.g.*, email or SMS), technology and software used as part of their collection strategies, use of first-party collectors, loss

²²⁶ Debt Collection Practices (Regulation F), 84 Fed. Reg. 23274 (May 21, 2019) (a proposed rule to amend 12 C.F.R. part 1006).

mitigation practices, and the engagement of third-party collectors for collection activities prior to charge-off.²²⁷

7.2.1 Pre-charge-off communications

Issuers reported having policies in place that specify the frequency with which their collectors can call, leave voicemails, email, text, and otherwise contact a consumer with regard to a delinquent account.²²⁸ Table 1 below provides greater specificity on the ranges of issuers' policy limits on consumer contact via various media and actual average attempts for each of those media. Issuers reported that their call intensity strategies depended on an account's stage of delinquency and risk level, among other factors.

TABLE 1: RANGES OF CONSUMER CONTACT POLICY LIMITS AND ACTUAL AVERAGE ATTEMPTS (MMI)

Policy limit or actual attempts	Phone call attempts per day	Phone calls after right party contact	Voicemails per day	Postal letters per month
Policy limit	2 to 9 per account	No additional calls on contact date	1 per phone number	1 to 8 per account
Actual average attempts ²²⁹	1.42 to 3.50 per account	0 per account on contact date	0.06 to 0.77 per account	0.21 to 2.16 per account

²²⁷ Most issuers use proprietary case management software for their internal collections. Issuers rely on a small number of vendors for their dialer software and hardware, mainly Avaya and Aspect dialers.

²²⁸ In response to the Bureau's Request for Information (RFI) a commenter asserted that limiting consumer contacts via any channel will make it more challenging for creditors to work with delinquent consumers, raising the cost of credit overall, including for consumers who pay their debts in a timely manner. *See* ABA Comment Letter, at 7.

²²⁹ Average attempts via the telephone and voicemail channels were defined as the number of calls made or voicemails left to all accounts that were called divided by the number of unique delinquent accounts that were called in a given period of time. For postal letters sent, average attempts by letter was defined as the number of letters sent to delinquent accounts divided by the number of unique delinquent accounts. The time frames were daily, weekly, or monthly, depending on common practices in that channel.

All surveyed issuers reported that their policies included daily caps per account on phone calls. Daily contact attempt policy limits ranged from two calls to nine calls per account. The high end of this range has decreased from the previous high of 15 calls per account reported in the Bureau's 2017 Report.²³⁰ Some respondents also set a weekly cap on telephone call attempts at 30 calls per week per account, while other issuers set monthly caps, which ranged from 60 to 90 call attempts per month. All issuers surveyed restricted the number of voicemails that can be left for a consumer each day, allowing no more than one voicemail per phone number per day, a decrease from the policy range of one to two voicemails reported in the Bureau's 2017 Report.²³¹

In general, issuers' actual average contact attempts remained below stated policy maximums. Issuers averaged between 1.42 and 3.50 contact attempts via telephone per account per day, similar to the range of 1.49 to 3.51 contact attempts reported in the Bureau's 2017 Report. However, no issuer allowed calls to continue within a given day once "right party contact" has been made. Right party contact occurs when the issuer or collector is able to reach and speak with the consumer whom the issuer believes is responsible for the debt via telephone. Right party contact rates typically averaged between 1 percent and 5 percent for in-house and first-party collections and between 0.6 percent and 1 percent for third-party collections over a three month period.²³² The majority of respondents reported that they did not track in-house and first-party contact attempts separately for pre-charge-off collections. Issuers who placed pre-charge-off accounts with third-party collection agencies stated that they often assign "high risk" accounts to third-party collectors, including accounts where no contact had been made with the primary account owner for an extended period of time, reducing right-party contact rates.

Nearly all of the issuers surveyed also reported using email as part of their credit card collection strategy, but the degree to which they used it varied widely. The reported percentage of email-

²³⁰ 2017 Report, *supra* note 5, at 314.

²³¹ *Id.*

²³² The survey defined "right party contact rate" as the number of times live contact with the primary or joint account holder or power of attorney of the debt was made during the quarter divided by the total number of outbound dialer attempts made to delinquent accounts in the quarter.

eligible accounts (defined as accounts for which the consumer provided a valid email address and agreed to be contacted at that address) ranged from 10.3 to 92.6 percent. Some issuers reported using email proactively for account servicing (*e.g.*, sending reminders about a pending withdrawal from a consumer’s bank account for a recurring payment) as part of their pre-charge-off communication strategy. Other issuers stated that they used email only reactively, such as when a consumer initiated a conversation online or requested that documents be sent by email. Issuers who reported using email typically restricted the number of emails that could be sent to two or three emails per week.

TABLE 2: EMAIL, TEXT, AND WEBCHAT ELIGIBILITY AND ENGAGEMENT RATES, 2018 (MMI)

	Email	Text/SMS message	Web chat
Average percent of accounts eligible for channel ²³³	68.3%	59.4%	Not applicable
Average percent of eligible accounts engaged via channel per month	67.0%	50.6%	2.5%

While nearly all issuers reported using email, less than two-thirds of those surveyed said they sent mobile text messages to communicate with delinquent consumers. However, the share of issuers using text as part of their credit card collection strategy has increased since the Bureau’s 2017 Report as a number of issuers reported piloting pre-charge-off text message strategies to notify consumers of their delinquent credit cards and repayment options. Two-thirds of issuers surveyed also reported engaging with delinquent consumers via “web chat,” where a consumer can click a chat button on the issuer’s webpage to communicate about their debt with a collections agent. In fact, some issuers now allow credit card settlements to be negotiated via web chat.

²³³ For email and text, the eligibility rate was defined as total number of unique delinquent accounts with a consented email address or a consented mobile phone number divided by the total number of unique delinquent accounts as of the end of each year. There is no eligibility rate for web chat, as the eligible population is all unique pre-charge-off delinquent accounts.

All surveyed credit card issuers had the capacity, within their collections function, to accommodate consumers with Limited English Proficiency or consumers who express the desire to communicate in a language other than English. Some issuers had a special unit of multilingual collectors to communicate with these consumers in their preferred language. Those without a special unit outsourced their translation services. For issuers that tracked consumer language preferences, the share of pre-charge-off delinquent balances owed by consumers who expressed a preference for a language other than English was 2.35 percent in 2018.

Some issuers reported having pre-delinquent collections strategies in place where they pursued collections on accounts that were current (*i.e.*, had not yet become delinquent.) These issuers focused on subsets of current accounts that were identified as high-risk, such as accounts that were chronically above the credit limit.

7.2.2 First-party collections

The majority of issuers supplemented the activities of their in-house agents with resources from first-party collectors, either by directly engaging an entire first-party collection agency or by supplementing their internal agent pool by hiring some collectors from first-party suppliers. Issuers reported that they generally do not track pre-charge-off account placements separately between in-house and first-party collections. Most issuers that used first-party collectors noted that they do not place any specific sub-segments of accounts with first-party agencies. Instead, issuers typically allocated work between in-house and first-party collectors based on availability, requiring that first-party collectors place, receive, and document calls to consumers using the issuers' own case management system and dialer technology.

First-party collection companies were typically paid on a full-time equivalent (FTE) basis, unlike the contingency fee model used to compensate third-party collectors. On average, issuers reported keeping 89 percent of pre-charge-off debt balances to be worked in-house and by first-party collectors, with the remaining 11 percent placed with third-party collectors.²³⁴ The number of unique first-party agencies used across issuers remained relatively stable year-over-year

²³⁴ These figures represent the percentage of pre-charge-off balances that each issuer retained for in-house and first-party collections and placed with third-party collectors, averaged across all issuers.

between 2017 and 2018, with 10 unique agencies in 2017 and 11 in 2018. The issuers that used first-party agencies used three different agencies on average.

7.2.3 Third-party contingency collections

More than half of the surveyed issuers worked with third-party contingency collectors prior to charge-off, which remained the same compared to the Bureau's 2017 Report.²³⁵ The total number of unique third-party collection agencies used across issuers also remained steady from 2017 to 2018, with issuers who used third-party collectors employing an average of 13 third-party agencies in both years.²³⁶ For issuers that used third-party collection agencies prior to charge-off, the average share of pre-charge-off debt placed with third-party collectors remained flat at 11 percent between 2017 and 2018. However, the share of pre-charge-off debt placed with third-party agencies varied widely among issuers, as some issuers placed a substantial portion (as high as 28 percent) of their pre-charge-off debt with third-party collectors, while some did not place any debt.

AGENCY COMPENSATION

Most issuers that contracted with third-party agencies for pre-charge-off collections paid a contingency fee that was a percentage of the amount collected. These fees ranged from 7.1 to 19.0 percent, with an average of 16.5 percent in 2017 and 15.3 percent in 2018. Survey respondents indicated that this variation is attributable to differences in the risk profile of the accounts being placed with third-party collectors. Generally, highly-collectible accounts command lower contingency fees compared to those perceived as being more difficult to collect. Among those issuers that used third-party agencies, a small number reported paying their third-party collectors on a FTE basis, rather than using contingency fees. Most issuers also provided additional incentives to third-party collectors based on their performance relative to a set financial target or to the performance of other collection agencies.

²³⁵ 2017 Report, *supra* note 5, at 315.

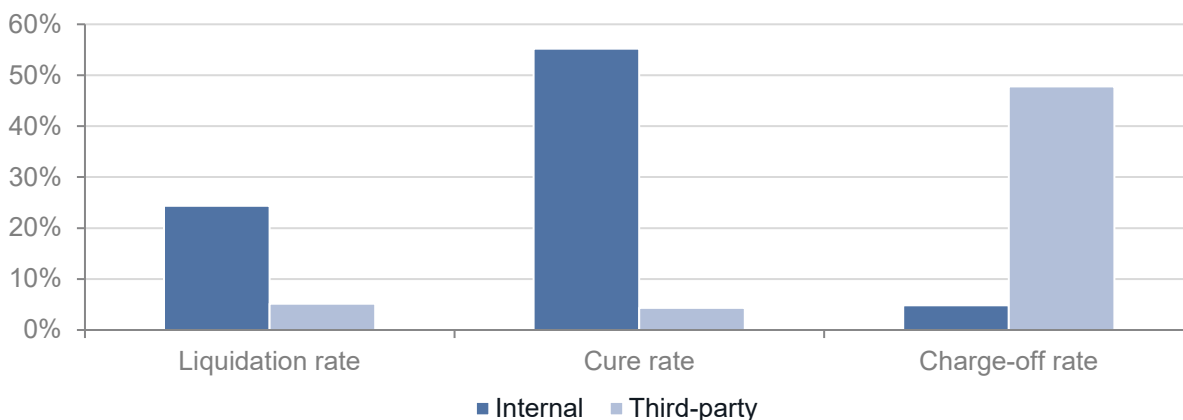
²³⁶ These numbers were driven by one outlying issuer, who reported a significantly higher number of third-party collection agencies. Excluding this outlying issuer, the average number of third-party collection agencies used by each surveyed issuer was 10.

7.2.4 Performance

Prior to charge-off, issuers generally kept debts that were in an early stage of delinquency or were assessed as having a relatively high likelihood of recovery for in-house collections. Issuers that placed accounts with third-party collection agencies often assigned “high risk” accounts to third-party collectors, including accounts in the later stages of delinquency, closed accounts, and accounts where no contact had been made with the primary account owner for an extended period of time. Respondents also noted that they may assign accounts with special circumstances to third-party collection agencies with specialized collections expertise in the relevant area, such as those where the consumer was engaged with debt settlement companies, the accountholder was deceased, or bankruptcy applications were pending. As a result, in-house collections generally had higher liquidation rates and cure rates, and lower charge-off-rates, relative to third-party collections, as seen in Figure 3 below.²³⁷ These performance metrics all remained relatively stable year-over-year from 2017 and 2018.

²³⁷ The quarterly liquidation rate is defined as total pre-charge-off delinquent dollars collected in a given quarter as a percent of total pre-charge-off delinquent dollars in that same quarter. Cure rate is defined as the percent of pre-charge-off delinquent dollars in a given quarter that were repaid to current status by the end of the same quarter. Charge-off rate is defined as the percent of pre-charge-off delinquent dollars that charged off (representing contractual charge-offs as well as accounts charged off for bankruptcy, notice of decease, etc.) as of the end of the same quarter. These quarterly rates are averaged across all issuers and weighted by issuer’s share of total pre-charge-off delinquent dollars. Finally, the 2018 quarterly average was calculated across all four quarters.

Figure 3: AVERAGE QUARTERLY PERFORMANCE FOR INTERNAL AND THIRD-PARTY COLLECTIONS, 2018 (MMI)



7.2.5 Loss mitigation and re-aging practices

Credit card issuers used various loss mitigation practices, including re-aging, short- and long-term forbearance programs, debt management plans offered by consumer credit counseling agencies, and debt settlement. Issuers reported that they generally structured their loss mitigation practices to conform to guidance issued by the Federal Financial Institutions Examination Council (FFIEC) and the federal banking agencies on the use of these collections tools.²³⁸

RE-AGING

Re-aging returns a delinquent, open-end credit card account to current status without collecting the total amount of principal, interest, and fees that are contractually due. Re-ages are often

²³⁸ See generally Uniform Retail Credit Classification and Account Management Policy: Policy Implementation, 65 Fed. Reg. 36903 (June 12, 2000); Off. of the Comptroller of the Currency, Bd. of Govs. of the Fed. Reserve System, Fed. Deposit Ins. Corp., Off. of Thrift Supervision, *Credit Card Lending: Account Management and Loss Allowance Guidance*, OCC Bulletin 2003-1, (Jan. 8, 2003), available at <https://occ.gov/news-issuances/bulletins/2003/bulletin-2003-1.html>.

performed by collections departments to assist customers who are experiencing temporary financial difficulties.

Issuers' policies allow re-aging of open-end accounts when a borrower makes at least three consecutive minimum monthly payments or an equivalent amount in a lump-sum payment. Additionally, an account must be on the books for at least nine months to be eligible for re-aging. The number of re-ages on an account is limited to one in 12 months and two in five years. However an account that is enrolled in a long-term forbearance or debt management program, including internal and third-party debt management plans, may be eligible for a third re-age within the five year period. All surveyed issuers' re-aging policies aligned with the guidance offered by the FFIEC and federal banking agencies.²³⁹

According to the results of the current survey, re-aged balances as a percentage of total delinquent dollars remained below 2 percent for each quarter between 2017 and 2018. There was considerable variation among the card issuers in terms of the share of pre-charge-off balances that were re-aged: the quarterly average ranged from as low as 0.44 percent of total delinquent dollars to a maximum of 5.8 percent. This wide range may reflect variation in each issuer's underlying portfolio composition. Collectively, issuers re-aged nearly \$1 billion in balances per quarter, well above the \$660 million per quarter reported in the Bureau's 2017 Report. However, re-aged balances as a share of total delinquent dollars still remained close to the 2 percent reported in the Bureau's 2017 Report.²⁴⁰ An uptick in re-aged balances in recent quarters in 2018 aligned with an increase in credit card delinquencies.

FORBEARANCE PROGRAMS

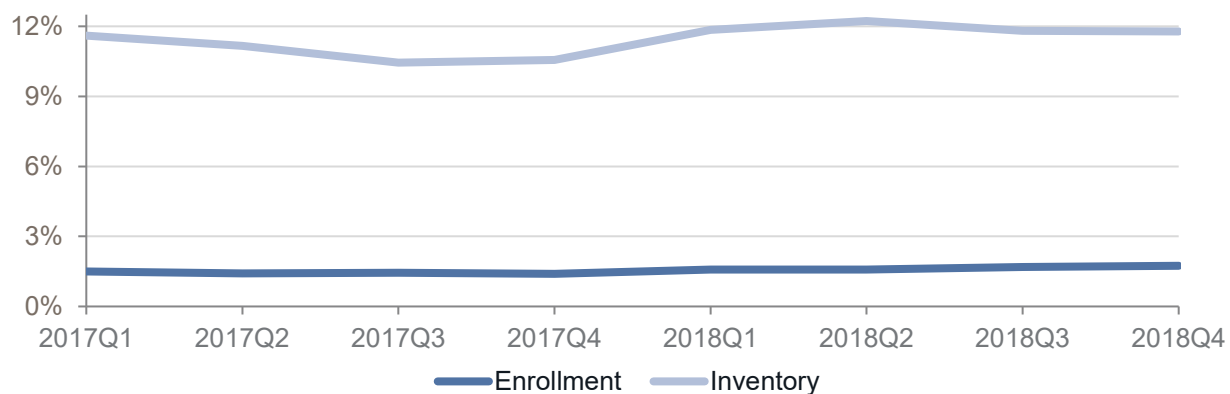
Forbearance programs are a form of workout program designed to assist borrowers experiencing financial hardship. These programs can be "temporary" or "short-term," aimed at assisting borrowers experiencing hardships expected to last 12 or fewer months, or "long-term," intended to aid borrowers experiencing continued hardships lasting longer than 12 months. Forbearance programs usually lower a customer's interest rate and monthly required payment amount. Issuers reported that their long-term programs generally require borrowers to repay

²³⁹ 65 Fed. Reg. 36903 (June 12, 2000).

²⁴⁰ 2017 Report, *supra* note 5, at 318.

their credit card debt within 60 months. In order to meet this amortization timeframe, creditors may need to substantially reduce interest rates and eliminate fees, so that a greater share of the borrower’s monthly payment is applied to pay down the principal balance. All issuers surveyed generally reported assessing and documenting the reason, severity, and duration of the cardholder’s financial difficulty when placing them in a forbearance program. All surveyed issuers’ forbearance policies aligned with the guidance offered by the FFIEC and federal banking agencies.²⁴¹

Figure 4: QUARTERLY FORBEARANCE NEW ENROLLMENT AND ACTIVE INVENTORY AS A SHARE OF DELINQUENT BALANCES (MMI)²⁴²



Review of issuers’ loss mitigation policies indicates that most issuers have discontinued offering short-term forbearance programs over the last several years. Instead, issuers that did not offer short-term programs evaluated consumers with short-term financial hardships and offered them long-term programs as an alternative. Most issuers also reported that they do not allow their third-party collection agencies to offer and enroll borrowers in hardship programs, due to the complexity of managing these programs.

²⁴¹ *Id.*

²⁴² “Inventory” refers to total balances for all accounts that are in active status in a forbearance program as of the end of the quarter.

CREDIT COUNSELING AGENCIES

Issuers work with consumer credit counseling agencies (CCAs) to help borrowers resolve their financial hardships, as an additional component of their loss mitigation efforts. CCAs work with borrowers to develop a budget and a debt management plan (DMP) for all of the consumer's enrolled debts, which may be owed to multiple creditors. These plans generally involve paying creditors a fixed payment amount at a reduced interest rate. Issuers typically categorize DMPs managed by CCAs as "long-term hardship programs."

All of the respondents reported that they work with CCAs in some capacity, although individual creditors' policies about how they work with and fund CCA services vary. Some respondents limited the number of CCAs they work with by requiring CCAs to meet certain selection criteria, such as whether CCAs are non-profits, belong to a trade group, or meet certain criteria for program outcomes. Some respondents reported referring consumers to specific CCAs. The majority of respondents reported funding CCAs through a "fair share" payment, which is a payment based on a percentage of the amount the consumer has paid back to the issuer. A few of the respondents stated that they do not pay fair share, but instead fund certain CCAs through grant funding. Several issuers reported exploring working with CCAs on debt relief programs that extend beyond the traditional DMP.

All issuers reported offering one or more types of forbearance or debt management programs with varying interest rates, monthly fixed payment amounts, and amortization periods. Total new enrollments in forbearance programs and DMPs offered by credit counselors remained below 2 percent of total pre-charge-off delinquent balances during the study period. However, total new enrollments increased by 16 percent from 2017 to 2018, representing a \$500 million dollar increase in debt balances enrolled. Approximately \$1.2 billion of debt was enrolled in various forbearance or debt management programs each quarter. The average quarterly new enrollment rate among individual issuers ranged from a low of 0.2 percent to a high of 5.2 percent of all pre-charge-off delinquent balances. While the Bureau's 2017 Report noted a steady decline in forbearance inventory between 2015 and 2016, issuers reported that total forbearance inventory shows a moderate upward trend due to an increasing number of new enrollments in 2018.

DEBT SETTLEMENT

Debt settlements occur when an issuer agrees to accept less than the full balance owed by the borrower as full satisfaction of the balance owed. This can happen when the creditor becomes persuaded that the consumer is unable to pay the full amount of the debt owed. Collectors may

also offer settlements to the consumer, as authorized by the creditor. Under current tax law, debt cancelled in this manner may have tax implications for the consumer.

Creditors' settlement policies outline the standards for settlement offers that the creditors will proactively make or reactively accept from consumers. Most issuers have policies in place to proactively offer settlements directly to consumers who meet the standardized risk criteria set by the creditor. These efforts may be conducted via in-house operations or through third parties. Issuers also set "floors" for settlements requested by the consumer, which specify the lowest amount the issuer is willing to accept as a settlement as a percent of the total balance. In addition to the size of the debt and the length of delinquency, issuers generally have procedures in place to assess the financial situation of the consumer when responding to a settlement request by the consumer. While there is some variation among issuers, the share of debt that each issuer settled for less than the full balance remained fairly steady throughout 2017 and 2018. Among surveyed issuers, the average share of pre-charge-off debt settled each quarter ranged from 0.07 percent to 0.79 percent, while the share of post-charge-off debt settled ranged from 0.26 percent to 3.04 percent.

Pre-charge-off balances are settled with a single lump-sum payment or multiple installments. Installment settlements typically consist of three payments, but pursuant to guidance from the Office of the Comptroller of the Currency for national banks and federal savings associations the total duration of the payments should not exceed three months.²⁴³ The portion of the balance that is forgiven should generally be charged off when the settlement agreement is fulfilled.²⁴⁴ Post-charge-off settlements can be structured over any length of time. Post-charge-off settlements can have lower floors relative to pre-charge-off settlements, though the degree to which lower rates are offered for charged-off debts varies across issuers. Average settlement rates—the balance paid as a ratio of the balance owed by the borrower for accounts that were settled—remained steady between 2017 and 2018 at about 53 percent pre-charge-off and 50

²⁴³ See Off. of the Comptroller of the Currency, *Comptroller's Handbook: Credit Card Lending, Version 1.2*, (Jan. 2017), available at <https://www.octreas.gov/publications/publications-by-type/comptrollers-handbook/credit-card-lending/pub-ch-credit-card.pdf>.

²⁴⁴ See OCC et al. Guidance, *supra* note 238.

percent post-charge-off, though there was some variation in the rates among individual respondents.

If the forgiven debt exceeds \$600, issuers may file a 1099-C for “Cancellation of Debt” with the Internal Revenue Service. Most issuers disclose the potential of tax implications for the settlement to the consumer, either as part of a telephone script or via letter.

7.3 Recovery following charge-off

Once an account charges off, it is placed into one of a variety of channels, including internal collections, third-party agency placement, litigation, and debt sale to facilitate further recovery of the balance owed. Issuers may place accounts multiple times in different channels depending upon recovery performance within each channel. Issuers may also warehouse certain accounts where balances are considered unlikely to be repaid.²⁴⁵ In 2018, issuers in the sample charged off \$39 billion in debt, a 10 percent increase from 2017, and 56 percent more than the \$25 billion charged off in 2015.²⁴⁶ In general, the current survey found that:

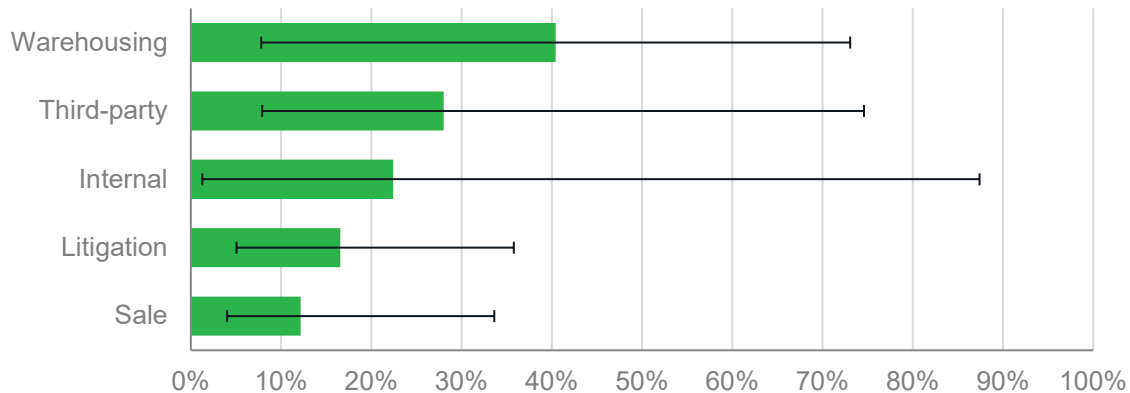
- All issuers warehoused a significant portion of their overall post-charge-off inventory;
- Most issuers used third-party agencies throughout the entire review period to collect at least a portion of their charged-off debt;
- Most issuers engaged in internal collections for at least a portion of their charged-off debt;
- Most issuers engaged in post-charge-off litigation to collect debt from consumers; and

²⁴⁵ Warehoused balances are generally those that issuers do not actively seek to collect and generally include accounts issuers considered to be uncollectible or unlikely to be repaid, including older accounts that may be past the statute of limitations. Some issuers also reported that they may place accounts in warehouse status when transitioning these accounts between placements.

²⁴⁶ 2017 Report, *supra* note 5, at 320. The same group of issuers were surveyed for the Bureau’s previous 2017 and 2015 Reports.

- A minority of issuers sold debt.

Figure 5: SHARE OF CHARGE-OFF BALANCE INVENTORY BY RECOVERY CHANNEL IN 2017 AND 2018 (MMI)²⁴⁷



Issuers reported a significant portion of their overall post-charge-off balance inventory was in warehouse status, as shown in Figure 5. The warehouse category includes accounts that are considered uncollectible for various reasons (*e.g.*, accounts lacking current contact information for the accountholder despite many attempts to locate them) or that are deemed unlikely to be repaid (*e.g.*, accounts where no payment has been received for an extended length of time).

Excluding warehoused accounts, issuers that used third-party collection agencies generally placed the largest share of their charged-off balance inventory with such agencies. Issuers that used third-party collection agencies reported placing nearly one-third of their post-charge-off inventory with third-party agencies in any given quarter between 2017 and 2018. While there was significant variation in third-party placements among issuers, the percentage of debt that each issuer placed with third-party agencies remained fairly consistent between 2017 and 2018. Among issuers, third-party placement share ranged from nearly 8 percent to 73 percent of an issuer's total post-charge-off inventory in 2017 or 2018. The range of placement into internal

²⁴⁷ Green bars represent the average share of charged-off balances in each of the five recovery channels. The issuers provided the status of post-charge-off balance inventory as of the end of each quarter in 2017 and 2018. The distributions for 2017 and 2018 were averaged by issuer, and then averaged across issuers. Black lines running through each bar represent the range of the share of charged-off balances only for issuers that used that channel. In other words, the ranges do not include zero values, even though some issuers did not use that particular channel.

recovery was similarly varied, as a few issuers reported that they relied primarily on internal recovery for post-charge-off collections.

Most issuers sued some consumers to recover unpaid balances after charge-off. On average, issuers litigated almost 20 percent of their post-charge-off balance inventory. Finally, similar to the results of the Bureau's 2015 and 2017 Reports, few issuers leveraged debt sales as part of their post-charge-off recovery strategy. Issuers who sold debt reported selling an average of 12 percent of their post-charge-off balance inventory.

7.3.1 Internal recovery

Internal recovery is not a significant piece of most issuers' overall recovery strategy for post-charge-off debt. Similar to in-house collections prior to charge-off, issuers may pursue internal recovery efforts directly after charge-off, or they may first place accounts with third-party contingency agencies. A minority of the issuers used internal recovery as a significant piece of their overall recovery strategy, while the majority generally retained accounts that were ineligible for third-party placement or awaiting placement in another channel. There was a significant degree of variation in issuers' policies designating certain accounts ineligible for third-party placement. Some issuers use models that score accounts based on the likelihood of payment to subset accounts to place in internal recovery, while some do not allow accounts with certain statuses (*i.e.*, accounts of consumers who are currently on active military duty) to be placed with third-party agencies. While on average about 22 percent of an issuer's post-charge-off inventory was pursued through internal recovery in 2017 and 2018, one issuer chose to retain and internally recover more than 80 percent of its post-charge-off inventory during the review period.

7.3.2 Third-party recovery

Most issuers employed third-party agencies to recover post-charge-off debt, all on a contingency-fee basis. While most surveyed issuers placed between 20 percent and 40 percent of their charged-off balances with third-party collectors, one issuer did not place any charged-off debt with third-party contingency agencies for most of 2017 and 2018. Issuers described a number of reasons for placing charged-off debt with third-party agencies, including improved recoverability for certain "high-risk" accounts, internal resource constraints, and the need for specialized expertise in recovering certain "special segments" of debt (*e.g.*, debt owed by deceased consumers).

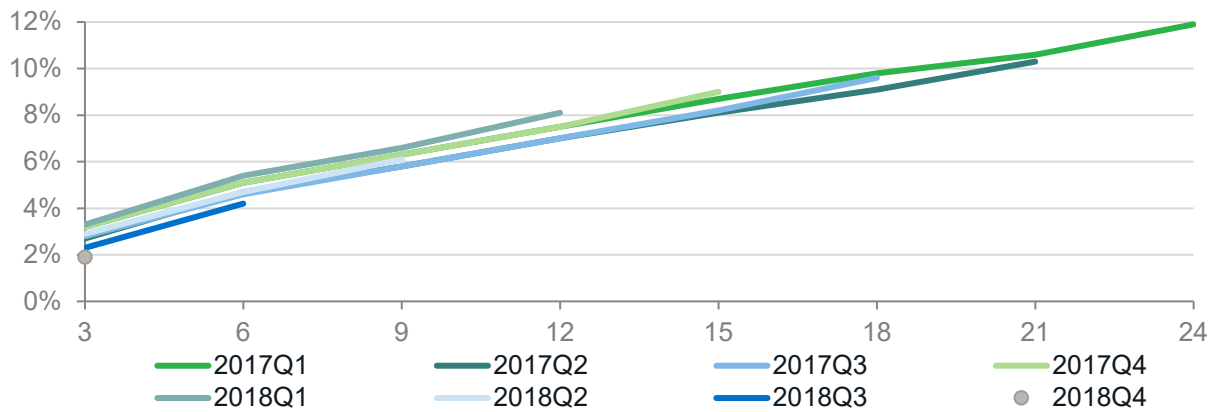
Creditors who employ third-party collectors generally contract with agencies to pursue a portfolio of accounts for a certain length of time. If an agency cannot recover money or establish contact on an account in the specified period, the creditor will generally recall the account. Accounts may be recalled from a third-party placement at any time, but recall usually follows a prescribed schedule determined by the age of the debt and the number of previous account placements.

PERFORMANCE

Performance of recovery is measured by the “cumulative recovery rate,” which is the share of the charged-off balance that has been recovered over the life of the charged-off account. Recovery on charged-off debt can occur over several months or years. As the debt ages and the account moves from one placement to another, the amount of money the issuer expects to recover from that account generally decreases.

Figure 6 below shows the average cumulative recovery rates for balances that charged off each quarter between the first quarter of 2017 and the fourth quarter of 2018. These rates reflect the cumulative recovery on the debt across all potential placement channels, including internal placement, third-party agency placement, litigation, and proceeds from debt sales. Longer recovery periods mean that the issuers have had more time to collect on the debt, so the cumulative recovery rate rises over time.

Figure 6: CUMULATIVE RECOVERY RATES FOR QUARTERLY VINTAGES BY MONTHS FOLLOWING CHARGE-OFF (MMI)²⁴⁸



For debt that charged off in the first quarter of 2017, issuers recovered an average of 12 percent of the charged-off balance within a two-year period. Nearly two-thirds of this recovery occurred within the first year following charge-off. Quarterly vintages show stable performance over the two year review period. The first vintage for which there are 24 months of data is 2017Q1. After one year, issuers recovered 7.5 percent of the charged-off balances from this vintage. As debt ages, incremental gains in recovery decline. After the second year, issuers recovered an additional 4.4 percent, for a two-year total of 11.9 percent.

THIRD PARTY NETWORKS

The size of individual issuers' third-party vendor networks, which include both contingency agencies and law firms, was generally stable between 2017 and 2018. The overall number of unique vendors used across all issuers was 119 in both years. In 2018, all but one of the issuers' third-party vendor networks consisted of at least eight third-party vendors. Between 2017 and 2018, the largest single network employed by any surveyed issuer included 57 separate vendors. While no single vendor was used by all issuers, three were used by the majority.

²⁴⁸ Here, each "quarterly vintage" represents balances for all accounts that charged off at any time during the given quarter. Cumulative recovery includes all proceeds collected post-charge-off, including through third-party collections, litigation, and debt sales.

AGENCY COMPENSATION

Issuers who used third-party agencies to collect on post-charge-off debt typically paid a contingency fee that was a percentage of the amount of debt collected. Contingency fees are based on the level of placement (*e.g.*, primary, secondary, tertiary, and quaternary), with later placements typically receiving higher contingency fees as the debt ages and recovery becomes more difficult. In 2018, contingency fees ranged from 18 to 26 percent for primary placement, from 22 to 34 percent for secondary placement, from 26 to 44 percent for tertiary placement, and from 10 to 50 percent for quaternary placement. Some issuers reported higher contingency fees for tertiary placement than quaternary placement. These respondents noted that the volume of quaternary placements is generally low and includes only a select subset of accounts (*e.g.*, accounts that had previously broken from a payment plan) where some likelihood of collection remains. After quaternary placement, most issuers report that they recall accounts and place them in warehouse status, where no further collection activity typically occurs.

In addition to contingency fees, some issuers set incentives and penalties to encourage third-party agencies to meet performance targets. A minority of issuers reported that they offered incentives to reward agencies with superior performance relative to other agencies in the issuer's network. Some issuers reported that they rewarded their third-party collection agencies with additional bonuses for meeting hiring and retention goals. Many issuers' third-party agency compensation plans also contained a penalty component, where agencies could be penalized if they fell significantly behind their peers' average performance or had compliance problems. Penalties included reduced contingency fees and/or placements in future periods, exclusion from bonus consideration, increased frequency of audits, and termination for significant compliance violations.

VENDOR MANAGEMENT

Issuers manage their third-party vendors' compliance with the issuers' policies, procedures, applicable regulatory requirements, and financial performance targets using a variety of methods. These included:

- Monitoring of randomly-sampled collection calls on a periodic (*e.g.*, monthly) basis;
- Periodic (*e.g.*, semi-annual or annual) audits, including on-site visits;
- Direct engagement through a team that serves as the primary contact between issuer and vendor to provide oversight of day-to-day operations; and

- Complaint intake, tracking, investigation, resolution, and trend analysis.

All issuers have limits on consumer contact attempts that they extend to their third-party contingency agencies and monitor through quality assurance testing, routine audits, and call sampling. These limits are generally similar to the ones followed by issuers' in-house and first-party collectors in pre-charge-off collections, although a minority of issuers allowed slightly higher daily phone contact attempts in post-charge-off collections than in pre-charge-off collections.

Most issuers either prohibit or strictly limit their third-party collectors from using email and text to initiate contact with borrowers in post-charge-off collections, although information may be sent via these channels if a borrower specifically requests it. However, a minority of issuers allowed their third-party debt collectors to send follow-up communications, such as payment reminders, via email. Some issuers required their collectors to stop using an email address for communications following a "hard bounce" (*i.e.*, the recipient's email ID was invalid), but allowed communication to continue following a "soft bounce" (*i.e.*, the recipient's inbox was full).

Only a minority of the surveyed issuers reported that they sent an agency placement notification letter to alert the borrower that their debt had been placed with a third-party agency. These letters informed borrowers that their debt had been transferred, provided the name and contact information of the third-party agency, and offered borrowers an option to pay the balance online via the issuer's website.

All surveyed issuers monitored their third-party agencies' collections performance, both relative to the issuer's stated targets and to the performance of other agencies in the network. Several issuers reported that they tested a number of alternatives to determine optimal placement strategies between their internal recovery unit and third-party network. Respondents who engaged in such comparative testing indicated that based on the results of such tests, they are planning to retain a larger share of accounts to work internally in 2019.

7.3.3 Litigation

Card issuers may sue a borrower in certain situations to recover outstanding debts. Issuers use litigation strategies for both pre- and post-charge-off accounts, although only a minority of issuers reported initiating litigation proceedings prior to charge-off. According to the Bureau's current survey, issuers may select accounts for litigation based on factors such as account

balance, level of delinquency, and estimated likelihood of payment (indicated by the presence of assets and employment income). All issuers in the survey that litigated credit card debt reported that they used an external network of attorneys. A minority of issuers also reported that they leverage an internal attorney network to execute their litigation strategies. As observed in the Bureau's 2017 Report, a few issuers noted that they may litigate accounts upon notification that a consumer is working with a debt settlement company.²⁴⁹

All issuers that litigated debt reported that the volume of new balances placed in the litigation channel increased significantly during the survey period, with year-over-year growth ranging from nearly 10 to 55 percent across issuers. For issuers that used the litigation channel, litigated balances as a percentage of total post-charge-off inventory ranged from a low of 5 percent to a high of 36 percent. Increased litigation volume may be partially attributable to overall growth in delinquency and charge-off volumes during the review period. However, some issuers also indicated increasing use of the litigation channel in response to a growing volume of accounts in cease communication status (see Section 7.4.2). Survey respondents generally selected higher-balance accounts from their portfolios for litigation, with average litigated account balances ranging from \$3,000 to \$11,000 across issuers during the current survey period, compared to average pre-charge-off balances ranging from \$1,300 to \$4,800.

DEFAULT JUDGMENTS

A default judgment is a ruling in favor of the plaintiff collector when the defendant consumer has failed to respond to a summons or to appear in court. More than one-half of the issuers that use litigation as a strategy did not report default judgments separately. However, respondents who do track default judgments separately reported that more than 70 percent of all judgments were default judgments. This ratio was consistent with the Bureau's previous report, and remained relatively flat between 2017 and 2018 among issuers who tracked default judgments separately.²⁵⁰

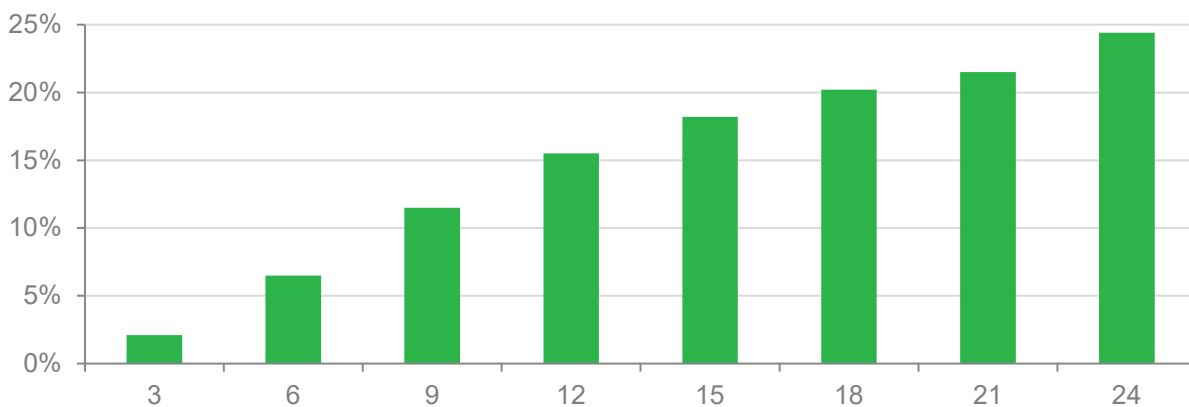
²⁴⁹ 2017 Report, *supra* note 5, at 331.

²⁵⁰ *Id.* at 326.

LITIGATION RECOVERY

After a creditor has won a judgment on a litigated account, recovery may occur over a prolonged period of time. To recover the debt, the issuer may exercise a wage garnishment against the debtor or ask the debtor to enroll in a payment plan. Thus, litigation generally produces a steady stream of recoveries from accounts with judgments against them, spread over a longer time period that may span several years. Figure 7 shows the cumulative recovery rate by months since judgment for vintages of accounts where a judgment was obtained between 2017 and 2018. Issuers recovered an average of 24 percent of the judgment balance for accounts where a judgment was obtained in the first quarter of 2017 (at 24 months, the longest performance window captured in the survey). Cumulative recoveries increased steadily over time as each vintage aged and a consistent flow of payments were applied to the account.

Figure 7: CUMULATIVE RECOVERY RATES BY MONTHS SINCE JUDGMENT WAS RECEIVED (MMI)²⁵¹



The average two-year cumulative recovery rate for accounts with judgments was 24 percent, almost twice the overall two-year cumulative recovery rate for all charged-off accounts (compare with Figure 6). Accounts with judgments may have higher cumulative recovery rates because issuers disproportionately litigate accounts with a higher ability to repay—assessing borrowers’ assets, employment, and other income as indicators.

²⁵¹ Here, each bar represents a "vintage" of accounts where judgment was received in a given quarter, starting with Q1 2017. Cumulative recovery for each vintage is measured as of December 31, 2018.

7.3.4 Debt sales

As part of their post-charge-off recovery strategy, some credit card issuers may sell credit card debt at a discounted rate to pre-selected debt buyers, receiving a fraction of the outstanding account balances sold. Typically, these sales are structured as “forward-flow” contracts, where a pool of accounts that meet a pre-determined criteria (*e.g.*, at charge-off or post-primary placement) are sold to the debt buyer on an ongoing (*e.g.*, monthly) basis. Issuers may also occasionally identify additional segments of accounts and sell them on an ad hoc basis depending upon market conditions. Finally, issuers may employ specific debt sale strategies for special segments like accounts where the issuer has received a notice of bankruptcy, where specialized expertise may be required to recover the amount owed. Debt buyers typically enter into contracts for the right to collect the entire balance, and they either attempt to collect themselves or employ third-party agencies to collect on their behalf on a contingency-fee basis.

MARKET STRUCTURE

The debt-buying market for credit card debt remains highly concentrated among a few buyers that purchase debt from many of the same issuers. Most of the surveyed issuers that sold debt in 2018 reported a roughly similar number of buyers year-over-year. However, there is a general trend of consolidation among surveyed issuers’ debt buyer networks: the Bureau’s 2017 Report found that in 2016, 20 unique debt buyers bought debt from the surveyed issuers that sold debt, while the current survey found that there were 15 unique buyers in 2018.²⁵² Eight buyers purchased debt from two or more issuers and six buyers bought debt from all the issuers that sold debt.

DEBT SALE VOLUME

Fewer than one-half of issuers surveyed sold debt in 2017 and 2018, and these issuers were the same ones that reported selling debt in the Bureau’s 2017 Report. Issuers that reported that they did not sell debt in 2017 and 2018 also indicated that they have no plans to do so in 2019. A majority of issuers that sold debt during 2017 and 2018 reported that they planned to sell a

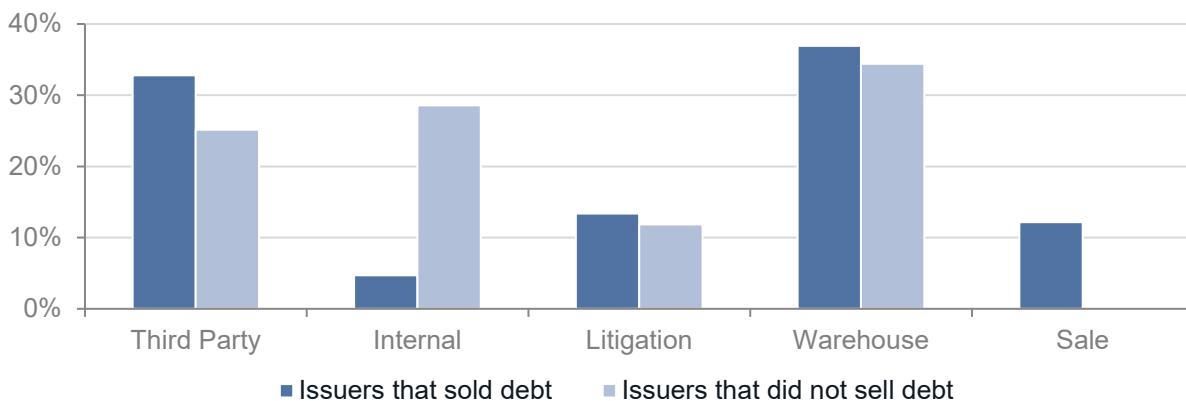
²⁵² 2017 Report, *supra* note 5, at 327.

lower percentage of debt in 2019 compared to 2018, while a minority reported that they planned to sell roughly the same amount. This is a reversal from the results of the Bureau's 2017 Report, where all issuers that sold debt reported that they planned to sell a higher proportion of charge-offs in the next year due to heightened delinquencies and charge-offs.²⁵³ In general, issuers that planned to reduce their use of debt sale strategies in 2019 explained this decision as an attempt to diversify post-charge-off recovery income across channels and strengthen financial resiliency. The survey respondents that sold debt in 2018 indicated that they planned to sell approximately 45 percent of their freshly-charged-off debt in 2019 at an expected average price ranging from \$0.09 to \$0.13 per dollar of debt balances.

Figure 8 compares the distribution of total post-charge-off inventory by recovery channel for issuers that did and did not sell debt in 2017 and 2018. Issuers that sold debt in 2017 and 2018 reported that in that period, roughly 12 percent of total post-charge-off inventory was sold to debt buyers. While both issuers that sold debt and those that did not sell debt relied on third-party agencies to collect a significant share of their charged-off inventory, issuers that did not sell debt placed a greater portion of balances in the internal recovery channel. As post-charge-off inventory aged between 2017 and 2018, all issuers held a growing share of debt in the warehouse category, where typically no active attempts are made to collect the balance owed.

²⁵³ *Id.*

Figure 8: SHARE OF CHARGED-OFF BALANCE INVENTORY BY CHANNEL FOR ISSUERS THAT DID AND DID NOT SELL DEBT (MMI)²⁵⁴



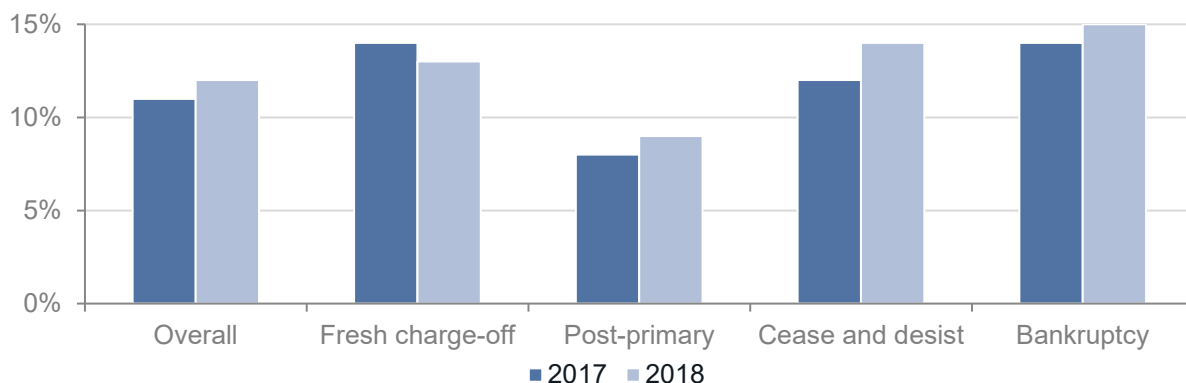
DEBT PRICE

Charged-off debt generally sells for a fraction of the account balance owed or “face value,” at a price largely dependent upon the age of the debt. Additionally, certain special segments of debt, such as accounts for which the issuer has received notice of bankruptcy, may command higher prices. The price of bankruptcy accounts may be above the overall average price of debt sold because the buyer may be able to recover a larger portion of the debt by filing proofs of claim as part of the bankruptcy process. Figure 9 shows the average price of debt by type. The overall average price of debt increased from 11 percent to 12 percent of face value between 2017 and 2018. However, the price of freshly-charged-off debt declined from 14 percent to 13 percent of face value over the same period. The price of freshly-charged-off debt is now 2 percentage points lower than its previous high of 16 percent reported in 2016.²⁵⁵

²⁵⁴ Bars represent the average share of total charged-off balance inventory in each of the five recovery channels. The issuers provided the share of balances placed in each channel by quarter as of the end of the quarter for 2017 and 2018. The distributions for 2017 and 2018 were averaged by issuer, and then averaged across issuers that sold debt and issuers that did not sell debt.

²⁵⁵ 2017 Report, *supra* note 5, at 329.

Figure 9: AVERAGE PRICE OF DEBT SOLD AS A PERCENTAGE OF ACCOUNT BALANCE BY TYPE OF DEBT SOLD (MMI)



Debt sold after one or more placements (post-primary) was priced at only 9 percent. Accounts where the collector received a request to cease and desist communications or received a notice of bankruptcy sold for an average of roughly 14 percent of face value in 2018, suggesting higher expected debt buyer recoveries from such accounts.

DEBT SALE CONTRACTS

All survey respondents that sold debt reported that they provide buyers with key documents and account information at the time of sale, including:²⁵⁶

- The account's last 12 statements;
- The amount and date of the last account payment;
- Itemized account of all amounts claimed, including principal, interest, and fees;
- Special status indicators (*e.g.*, attorney representation or cease and desist); and
- Information relating to prior collection efforts.

²⁵⁶ An RFI commenter noted that OCC Bulletin 2014-37, which provided guidance on documentation to be transferred upon the sale of debt, applies only to national banks and federal savings associations, and not to credit card issuers more broadly. *See* ABA Comment Letter at 8.

After the debt is sold, issuers reported that they may provide additional documentation at the buyer's request, including cardholder agreements, written applications, affidavits, and earlier account statements. While most issuers who sold debt reported that debt buyers do not pay a fee to access these documents, a minority reported charging a fee to provide additional documentation.

All surveyed issuers that sold debt also stated that they send out "goodbye" letters to the cardholder. These letters inform borrowers of the sale and provide the name and contact information of the buyer.

Contractual restrictions imposed on buyers by all surveyed issuers that sold debt are generally consistent with OCC Bulletin 2014-37, and include:²⁵⁷

- Restrictions on resale of the debt, which is limited to special circumstances (*e.g.*, the buyer exiting the market);
- Restrictions on buyers' ability to assess interest on the purchased debt;
- Restrictions on buyers' ability to litigate purchased accounts;
- Prohibitions on litigation by buyers on debt that is past the statute of limitations; and
- Conditions under which the issuer will repurchase the debt.

Debt sale contracts generally do not restrict debt buyers from reporting to credit reporting agencies. Instead, the contracts require that the buyer adhere to all Fair Credit Reporting Act requirements.

²⁵⁷ See Off. of the Comptroller of the Currency, *Consumer Debt Sales - Risk Management Guidance*, OCC Bulletin 2014-37 (Aug. 4, 2014), available at <http://www.occ.gov/news-issuances/bulletins/2014/bulletin-2014-37.html>.

7.4 Special topics in credit card collections

7.4.1 Debt settlement companies

Borrowers sometimes work with DSCs, which are typically for-profit entities with the primary objective of enrolling qualified borrowers in a debt settlement program.²⁵⁸ These firms do not receive any compensation from issuers. Instead, they typically assess the borrower a fee based on the original debt balance and contingent upon completing the settlement with the creditor. Debt settlement programs involve redirecting payments that consumers would have made to creditors to a borrower-controlled fund, which is then used by the debt settlement company to pay negotiated settlements. Since enrolled consumers stop making payments to creditors, borrowers who work with the DSCs typically find that their accounts continue to grow in delinquency and are reported to the credit reporting agencies.²⁵⁹ Issuers may also pursue legal collections on these accounts. DSCs also often advise consumers to send a cease and desist communication letter to creditors as part of the program. Those issuers who sell debt often sell charged-off debt for which they have received a cease and desist communication letter to debt buyers because such debts generally are more difficult to recover.

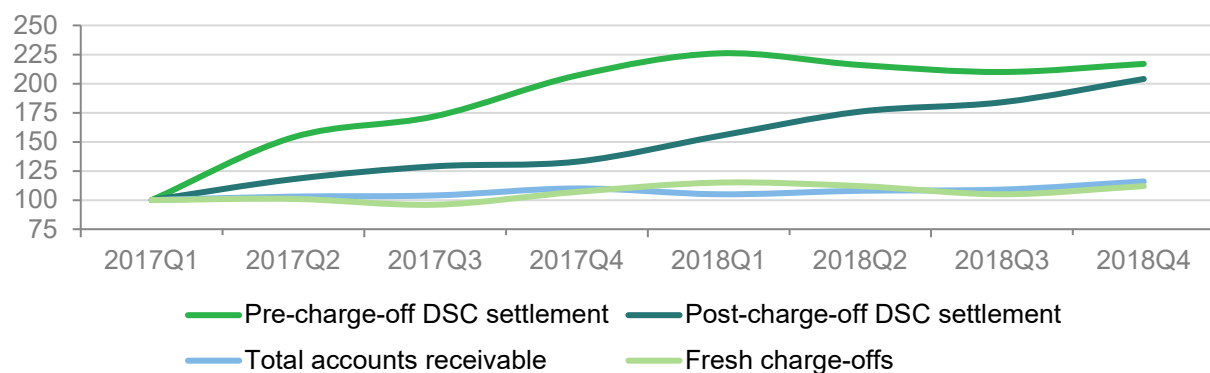
All of the surveyed issuers have established policies and procedures about how to manage accounts enrolled with DSCs. In most cases, issuers require a third-party authorization document signed or otherwise authorized by the consumer in order to communicate with the DSC about the account. Some issuers reported that they will not negotiate settlements with DSCs even after receiving third-party authorization from the consumer. Some issuers have policies that allow the accounts to move quickly to placement with special third-party agencies for potential litigation. Most issuers that work with DSCs reported that they apply the same

²⁵⁸ See Greg J. Regan, *Options for Consumers in Crisis: An Updated Economic Analysis of The Debt Settlement Industry*, American Fair Credit Council, (Feb. 5, 2018), available at <https://americanfaircreditcouncil.org/regan-reports/> (data as of Mar. 31, 2017).

²⁵⁹ One RFI commenter claimed that consumers have “limited niche choices in debt relief assistance,” while also lacking data necessary to make informed choices about debt relief products and services. The commenter advocated greater disclosure of performance data for non-profit and for-profit debt relief providers, including “success rate, the impact to future retirement savings, credit report/score impact, protection from legal action, and cost of the solution.” See Steve Rhode Comment Letter, at 2.

settlement policies available to consumers who call the creditor directly to request settlements. However, a minority of issuers who work with DSCs have a set settlement rate specific to debt settlement companies, and these fixed rates forgive a smaller percentage of the balance owed than the floor settlement rates available to consumers who call the creditor directly and demonstrate financial hardship. In some cases, creditors have dedicated teams, either in-house or provided by third-parties, which specialize in engaging with DSCs.

Figure 10: INDEXED GROWTH IN PRE- AND POST-CHARGE-OFF DSC SETTLEMENT BALANCES, ACCOUNTS RECEIVABLE, AND FRESH CHARGE-OFFS (MMI)²⁶⁰



As shown in Figure 10, the volume of balances settled through DSCs grew proportionately faster than the growth in the issuers' overall account receivables and fresh charge-offs between 2017 and 2018. Pre-charge-off settlements grew 117 percent and post-charge-off settlements grew 104 percent between 2017 and 2018, compared to only 16 percent growth in accounts receivables and 12 percent growth in fresh charge-offs. Respondents reported nearly \$2.2 billion in debt settled through DSCs within the two year survey period, \$1.4 billion of which was settled post-charge-off, almost twice the volume of pre-charge-off settlements. Growth in pre-charge-off settlements accelerated more quickly than in post-charge-off settlements within the first half of the survey period before leveling off in 2018.

²⁶⁰ This graph represents changes in balances settled through for-profit DSCs, accounts receivables, or fresh charge-offs indexed to the values in the first quarter of 2017. These numbers do not include settlements for accounts where legal representation or other third parties were involved in settlement negotiations.

7.4.2 Cease communication

All issuers reported honoring cease communications requests, both verbal as well as written, from the consumers or their power-of-attorney, though only a minority of issuers reported tracking volumes of written requests separately from verbal requests. Issuers accommodated requests to cease all communications (phone calls, written communications, etc.) except to send legally required communications like monthly statements. They also accommodated special and limited cease communication requests (*e.g.*, “no phone calls only,” “no calls to place of employment”). For accounts placed with third-party collectors, issuers generally recall those accounts with cease and desist requests and place them with attorney firms for further collections, including litigation. Those issuers who reported selling debt post-charge-off, regularly sold accounts with cease communication status. In 2018, 2.8 percent of the pre-charge-off balance inventory had cease and desist communication status, a 7 percent increase from 2017. Similarly, 4.7 percent of the post-charge-off balances had cease communication status representing a 10 percent increase compared to 2017. These increases may partly be due to the fact that more consumers are working with for-profit DSCs, who advise their clients to send cease communication requests to their creditors while waiting to negotiate settlements.

7.4.3 Consumer-level collections

When a consumer has multiple delinquent accounts, issuers may choose to collect debt at the consumer level by managing all the delinquent accounts together. Three-fourths of the surveyed issuers noted that they pursued some degree of consumer-level pre-charge-off collections for borrowers with multiple delinquent accounts, the same as in the Bureau’s 2017 Report.²⁶¹ Respondents indicated that consumer-level collection strategies were more common for internal and first-party pre-charge-off collections than for third-party collections. Issuers who utilized a consumer-level strategy for pre-charge-off collections generally reported that the oldest delinquent account with the highest balance in the relationship was the lead account, and that all of a consumer’s delinquent accounts were discussed during a single call to the consumer. The percentage of total pre-charge-off delinquent dollars belonging to consumers with multiple

²⁶¹ 2017 Report, *supra* note 5, at 333.

accounts from the same issuer varied widely across issuers, ranging from 5.2 to 66 percent in 2018.

Most of the surveyed issuers did not have a consumer-level approach for recovering post-charge-off debt. For the minority of issuers that used a consumer-level recovery strategy post-charge-off, some issuers reported that they placed all of a consumer's charged-off accounts with the same third-party agency, while others reported that they used a litigation strategy involving assigning all of a consumer's charged-off accounts to the same law firm.

8. Innovation

The Bureau’s Congressional mandate to review the credit card marketplace specifically instructs the agency to assess “credit card product innovation.”²⁶² Consumer and provider access to digital technology is fundamentally changing the ways in which consumers obtain and use credit cards. Since the 2017 Report, digital account servicing platforms, such as websites and mobile apps where consumers can view and manage account activity, continue to increase in the number of available features. Cardholders continue to transact online in large volumes and mobile wallets are increasingly used at the physical point-of-sale (POS). Gains in computing power and data analysis technology are being used by card issuers to enhance credit and risk management. Because of these innovations, consumers with access to the relevant technology can now readily and rapidly:

- Access their credit score and information about how to manage and improve their score;
- Identify and compare credit cards according to their own criteria;
- Apply for credit cards and, if approved, be able to use the card in near real-time;
- Permit/Allow the use of new data in the underwriting process;
- Specify the delivery of alerts about card use or payment obligations;
- Receive promotional offers based on the consumer’s choice of criteria, such as location;
- Turn card functionality off and on, or limit and control its use in certain channels;

²⁶² 15 U.S.C. § 1616(a)(4)(D) (2012). Congress established the Bureau’s statutory purpose as ensuring that all consumers have access to markets for consumer financial products and services and that markets for consumer financial products and services are fair, transparent, and competitive. *See* 12 U.S.C. 5511(a) (2012). The Bureau’s objective includes exercising its authorities for the purpose of ensuring access and innovation. *See* 12 U.S.C. 5511(b)(5) (2012).

- Manage card use interactively in accordance with the consumer’s overall strategy for personal financial management; and
- Choose to repay obligations on the card with new alternative payment options.

Although some of these innovations have been available to some consumers for some time, the collective availability of these tools and use at scale is becoming a competitive differentiator in today’s consumer credit card market. Digitally-based tools have been introduced in multiple stages of the product’s life cycle—shopping, origination, servicing, and transacting.²⁶³

This section covers some of these recent changes in more detail. Section 8.1 reviews a number of changes associated with card servicing, including account management and payment tools. Section 8.2 covers a number of recent innovations at the point-of-sale. Section 8.3 reviews innovation in credit and fraud risk management.²⁶⁴

8.1 Account servicing innovation

8.1.1 Account management enhancements

Most basic account servicing actions are now standard in card companies’ mobile and online platforms. As discussed in the 2017 Report, cardholders can review transactions (and dispute fraudulent ones), make payments, transfer balances, request cash advance PINs, activate new cards, request replacement cards, download full account statements, receive information about other card benefits, add or remove an authorized user from their accounts, inform their issuer of upcoming travel, report a card lost or stolen, change their account’s due date, or send and read

²⁶³ See *supra* note 2.

²⁶⁴ Important innovations related to card marketing and comparison shopping are covered in Section 4.1.

messages to and from account servicing professionals or chat with them in real-time.²⁶⁵ More recent changes provide customers with new account management features.

Important developments to these platforms include:

- Many credit and debit card providers now offer a feature that lets customers instantly freeze and subsequently ‘un-freeze’ the cards within the mobile app.²⁶⁶ At least one credit card provider offers customers the ability to manage recurring card payments within its mobile app.²⁶⁷ Another credit card provider offers cardholders virtual card numbers that can be used for individual or recurring transactions and may be accessed and dialed through a mobile app.²⁶⁸ Another credit card provider has started to offer their customers the ability to dictate where or when the cards can be used, allowing consumers to set spending limits and alerts across merchant categories.²⁶⁹ Both features may allow cardholders to have better control over their payment cards.²⁷⁰

²⁶⁵ See 2017 Report, *supra* note 5, at 171.

²⁶⁶ See Susan Ladika, *Credit card on/off switches: More card issuers adding them*, Creditcards.com (Feb. 19, 2018), available at <https://www.creditcards.com/credit-card-news/credit-card-on-off-switches.php>; see also Press Release, Chase, *Chase Lets Customers Lock, Unlock Credit Cards from Their Phone and Computer*, (Sept. 27, 2018), available at <https://www.businesswire.com/news/home/20180927005487/en/Chase-Lets-Customers-Lock-Unlock-Credit-Cards>.

²⁶⁷ Press Release, Wells Fargo, *Wells Fargo Launches Control Tower, New Digital Experience for Customers Nationwide* (Oct. 1, 2018), available at <https://www.businesswire.com/news/home/20181001005683/en/Wells-Fargo-Launches-Control-Tower-SM-New>.

²⁶⁸ Kelly Dilworth, *Virtual card numbers: Safer, Convenient, and a Spending Risk*, Creditcards.com (Mar. 29, 2018), available at <https://blogs.creditcards.com/2018/03/virtual-card-numbers-safer-convenient-and-a-spending-risk.php>.

²⁶⁹ Press Release, Barclays, *Barclays Launches “Control Your Card” Digital Features to Give Cardmembers More Control Over Credit Card Usage* (Apr. 16, 2019), available at <https://www.prnewswire.com/news-releases/barclays-launches-control-your-card-digital-features-to-give-cardmembers-more-control-over-credit-card-usage-300832388.html>.

²⁷⁰ The developments build on functionality rolled out by the networks in 2016. Visa’s Consumer Transaction Controls “enables account holders to set simple, convenient, and effective spending controls, receive transaction

- Card companies are now employing AI-powered chatbots to navigate and execute digital account management functions and make transactions.²⁷¹ Some of the most heavily-promoted chatbots are provided as tools within the issuers' mobile apps, where they provide an alternative method of accessing the apps' features in addition to providing higher-order functionality, such as responding to questions about spending patterns. For example, cardholders can use voice or text to direct a chatbot to search for certain transactions, display basic account information, add an authorized user, summarize and plot monthly spending, or send alerts for upcoming bills, among other options. Many chatbots are responsive to both voice and text, with voice recognition requiring an additional layer of technology. Several issuers and one network have integrated chatbots into the Facebook Messenger platform with the aim of providing a better experience for customers that transact through the app.²⁷²
- Several issuers have recently provided a means for consumers to load credit cards into digital wallets directly from individual issuers' mobile apps. Originally, cardholders had to navigate to a digital wallet and load it with the requisite card information. Now for certain mobile wallets, some issuers allow cardholders to manage this process beginning in the issuers' mobile apps, where card information is pre-loaded.²⁷³

alerts, or even temporarily suspend their accounts using a simple on/off feature.” See Press Release, Visa, *Visa Puts Consumers in Charge of Security* (Feb. 9, 2016), available at <http://www.businesswire.com/news/home/20160209005812/en/Visa-Puts-Consumers-Charge-Security>. Mastercard’s In Control product can grant “greater convenience, security and control to consumers, small businesses and corporations,” and “parents, employers and other customers can set parameters for when, where and how cards are used, giving them more control over their accounts.” See Mastercard, *Empower Your Customers with Mastercard In Control*, available at <https://www.mastercard.us/en-us/issuers/products-and-solutions/grow-manage-your-business/payment-innovations/mastercard-in-control.html> (last visited July 1, 2019).

²⁷¹ Dawn Allcot, *Artificial Intelligence is Changing Credit Cards and Banking*, Bankrate.com (Feb. 4, 2019), available at <https://www.bankrate.com/credit-cards/artificial-intelligence-banking-credit-card-rewards/>.

²⁷² Rachel Brown, *Mastercard, American Express and Wells Fargo charge up Facebook Messenger chatbots*, Mobile Marketer, (Apr. 19, 2017), available at <https://www.mobilemarketer.com/news/mastercard-american-express-and-wells-fargo-charge-up-facebook-messenger-c/440724/>.

²⁷³ See American Express, *Apple Pay*, <https://www.americanexpress.com/us/credit-cards/features-benefits/digital-wallets/apple-pay.html> (last visited June 19, 2019). See also Bank of America, *Show me how to: Digital wallets*,

- Several new credit cards provide interactive digital interfaces to assist the cardholder in making payments toward their credit card balances. Using one of these interfaces, a cardholder can ‘dial’ or ‘slide’ from the minimum payment amount to the full balance and see corresponding finance charges.²⁷⁴

8.1.2 Increased repayment options

One especially-notable new feature in account servicing is payment flexibility. Previous reports reviewed two types of emerging lending products that offer consumers alternative repayment options: (1) unsecured personal loans from fintech lenders used to pay off revolving credit card balances and (2) non-card loans offered to consumers at the point-of-sale as a credit-based payment option. The number of providers of these emerging lending products has continued to grow, while several credit card issuers have responded by introducing competing features on card accounts allowing for new forms of payment flexibility.

PERSONAL LENDING

Closed-end unsecured personal loans, such as those offered by nonbank lenders, compete with credit cards for consumer loan balances.²⁷⁵ Personal loans are generally aimed at consumers looking to consolidate or reduce the cost of carrying credit card debt or those looking to finance a large purchase. As closed-end loans meant for a specific use, personal loans may, for some cardholders, be a lower cost means of borrowing than revolving a credit card balance.²⁷⁶ If used

https://promo.bankofamerica.com/cbobrochure/?showme_howto=digital (last visited June 19, 2019). *See also* Citi, *It’s faster than ever to add your Citi card to Apple Pay right from the Citi Mobile App*, <https://www.citi.com/credit-cards/creditcards/citi.action?ID=citi-apple-pay> (last visited June 19, 2019).

²⁷⁴ *See, e.g.*, Apple, *Apple Card*, <https://www.apple.com/apple-card/> (last visited July 23, 2019); Petal, *Petal Card*, <https://www.petalcard.com/> (last visited July 23, 2019).

²⁷⁵ Loans of this nature are received as a cash disbursement and do not generally compete with credit card transacting.

²⁷⁶ For example, one study found that given the same credit risk, consumers would be able to obtain credit at a lower rate through an online personal lender than through traditional credit cards. Study abstract: “for the same risk of default, consumers pay smaller spreads on loans from the Lending Club than from traditional lending channels.”

to repay or consolidate credit card balances, personal loans also have the effect of increasing a cardholder's available line. There is an emerging body of research on the use of personal loans and their relationship to credit card debt. Consumer use and outcomes are still being researched.²⁷⁷

Personal loans have long been offered by banks and specialty finance companies, but competition has sharply increased since the Great Recession. Leading up to and then following the recession, online lenders emerged with a focus on providing personal loans to consumers for the purpose of debt consolidation.²⁷⁸ Since the end of 2015, consumer personal loan balances have increased by 34 percent.²⁷⁹ Credit card companies have begun to offer personal loans themselves and one bank made its first entry into the consumer market with a personal loan product.²⁸⁰ At least one student loan refinancing company has expanded into personal lending.²⁸¹ Some banks have entered partnerships with fintechs to offer personal loans through fintechs' platforms.²⁸²

See Julapa Jagtiani and Catharine Lemieux, *Fintech Lending: Financial Inclusion, Risk Pricing, and Alternative Information*, (July 18, 2017), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3005260.

²⁷⁷ One working paper finds that consumers that receive personal loans from fintech companies are likely to use the additional funds for consumption rather than for consolidating high-cost credit card debt. See Marco Di Maggio & Vincent Yao, *Fintech Borrowers: Lax-Screening or Cream-Skimming?*, (Aug. 1, 2018), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3224957.

²⁷⁸ See J. Christina Wang, *Technology, the Nature of Information, and Fintech Marketplace Lending*, at 6. Fed. Reserve Bank of Boston (Oct. 2018) available at <https://www.bostonfed.org/publications/current-policy-perspectives/2018/technology-nature-of-information-fintech-marketplace-lending.aspx>.

²⁷⁹ Oliver Wyman Experian MIR Q4 2018 and MIR Q4 2017.

²⁸⁰ AnnaMaria Andriotis & Peter Rudegeair, *Lenders Shunned Risky Personal Loans. Now They're Competing for Them*, Wall St. J. (Aug. 24, 2018), available at <https://www.wsj.com/articles/lenders-shunned-risky-personal-loans-now-theyre-competing-for-them-1535103000>.

²⁸¹ See SoFi, *Personal Loans*, <https://www.sofi.com/personal-loans/> (last visited June 19, 2019).

²⁸² Press Release, Regions Bank, *Regions Bank to Offer Expanded Online Consumer Loan Experience Powered by Leading Fintech Firm Avant* (Apr. 8, 2016), available at <https://www.businesswire.com/news/home/20160408005117/en/Regions-Bank-Offer-Expanded-Online->

ALTERNATIVE CREDIT OPTIONS ONLINE AND AT THE POINT-OF-SALE

Another type of non-card loan offered to consumers for online purchases and at the physical POS offer a more direct alternative to credit cards than personal loans, and are sometimes marketed as such. Non-card loans at the online POS are typically closed-end, fully-amortized installment loans that are presented to consumers when making a purchase with a participating merchant, generally by means of a branded “pay with” button as a payment option during checkout. Physical POS financing is also available at some retailers through partnerships with lenders. In both cases, after inputting several pieces of personal information (sometimes on a merchant’s device if in-store) a consumer is presented with repayment options as a result of a near real-time automatic underwriting process. Once an approved consumer’s preferred terms have been selected, funds are sent directly to the merchant.

Competition with credit cards may intensify if these products become more widely available. Several POS lenders, for example, have engaged in strategies that leverage debit card networks to expand acceptance of their products beyond their merchant partners.²⁸³ While many providers primarily serve online POS, competition at physical POS is increasing. One lender expanded to the physical POS with a major retailer partnership.²⁸⁴ A payments provider recently announced plans to provide physical POS consumer loans through its merchant network.²⁸⁵

One emerging point of product differentiation is pricing. The more-established alternative lenders generally charge interest on POS loans. In some cases, financing may be offered for free

Consumer-Loan. See also Hannah Levitt, *HSBC U.S. Partners With Web-Based Avant to Offer Personal Loans*, Bloomberg (Oct. 22, 2018), available at <https://www.bloomberg.com/news/articles/2018-10-22/hsbc-u-s-partners-with-web-based-avant-to-offer-personal-loans>.

²⁸³ Providers that offer this capability describe it as using one-time prepaid debit cards. See Affirm, *Affirm In-store Virtual Card*, available at https://docs.affirm.com/Merchant_Resources/Affirm_In-store_Virtual_Card (last visited June 26, 2019). See also Klarna, *What is a Ghost card?*, <https://www.klarna.com/us/customer-service/what-is-a-ghost-card/> (last visited June 26, 2019).

²⁸⁴ Kevin Wack, *Walmart teams with Affirm to offer point-of-sale loans*, PaymentsSource (Feb. 27, 2019), available at <https://www.paymentsource.com/news/walmart-teams-with-affirm-to-offer-point-of-sale-loans>.

²⁸⁵ Selina Wang, *Jack Dorsey’s Square Rolls Out Lending for Customer Purchase*, Bloomberg (Oct. 4, 2018), available at <https://www.bloomberg.com/news/articles/2018-10-04/jack-dorsey-s-square-rolls-out-lending-for-customer-purchases>.

to the consumer, in which cases, the lenders generally receive additional compensation from the merchant. A new group of alternative POS lenders now offers no-interest financing as a default model. For example, several providers allow consumers to pay off purchases in a fixed number of installments—often four—over several months.²⁸⁶ These payments sometimes include no interest, although consumers can incur late or missed payment fees. Merchants pay these lenders a fixed amount or percentage of each transaction. Some of these products have shown rapid growth—and attracted calls for more regulatory attention—in foreign markets.²⁸⁷

CREDIT CARD PAYMENT INNOVATION

As the previous two categories of products continue to grow, credit card issuers are positioned to lose purchase and revolving volume. Personal loans used to pay off credit card balances cause issuers to miss out on interest and fee revenue that would have been paid over time. POS loans divert sales that would add to those outstanding balances, also resulting in lost interest and fee revenue.

These long-term threats to credit card profitability may have contributed to the development of flexible payment options for credit card purchases. New fixed payment features of accounts leverage a card's existing credit line for a repayment plan that is separate from payments made toward the regular feature of the account, which may provide consumers with greater flexibility and control in paying down different purchases at different costs and speeds. Issuers have implemented a variety of these types of payment options into the card servicing platform for easier signup. New flexible payment features of credit card accounts fall into two categories: those that provide a payment plan for existing purchases and those that provide a payment plan for future purchases.

²⁸⁶ Valeriya Safronova, *It's Layaway, But for a Post-Recession Economy*, N.Y. Times (May 3, 2019), available at <https://www.nytimes.com/2019/05/03/fashion/afterpay-quadpay-klarna-affirm.html>.

²⁸⁷ Michael McGowan, *Afterpay: buy-now pay-later scheme soars in popularity but experts sound warning*, The Guardian (Sept. 20, 2017), available at <https://www.theguardian.com/australia-news/2017/sep/21/afterpay-buy-now-pay-later-scheme-soars-in-popularity-but-experts-sound-warning>.

The first set of features allows certain individual purchases made on a credit card to be paid off using fixed monthly payments over a set period of time. Issuers that offer this type of feature let consumers select eligible transactions through the card's mobile app or online portal for fixed monthly payments.²⁸⁸ For issuers, the feature may help retain incremental balances on the card and undercut competition from alternative lenders. In announcing this feature, one bank's leadership specifically noted that it will allow them to compete with other financial products at the POS.²⁸⁹ The issuers' products (or announced products) differ slightly but, in general, purchases over a certain dollar threshold are eligible.²⁹⁰

Credit repayment flexibility is not new, but today's options differ in their use of credit card mobile apps. One issuer launched a credit card balance management platform in 2009, but it was delivered separately from the primary account interaction.²⁹¹ Today's repayment flexibility products are presented to the consumer in the flow of viewing his or her transaction history. Eligible transactions are denoted with an icon that links to the product terms. A range of repayment periods and corresponding costs are offered (*e.g.*, three payments, six payments, or 12 payments). In addition, one issuer provides a corresponding feature through which cardholders may pay down the account balance in an amount equal to a specific transaction's dollar amount.

²⁸⁸ Issuers describe such fixed monthly payments in different ways. American Express describes payments as including a fixed monthly fee with no interest. Citi describes payments as payments with a fixed APR. Chase describes payments as subject to the *My Chase Plan* fee, a fixed finance charge.

²⁸⁹ Michelle Davis & Jennifer Surane, *JPMorgan Sees a \$250 Billion Opportunity in New Credit Card Loan Features*, Bloomberg (Feb. 26, 2019), available at <https://www.bloomberg.com/news/articles/2019-02-26/jpmorgan-eyes-250-billion-loan-opportunity-in-new-card-features>.

²⁹⁰ This threshold ranges from \$100 for American Express's *Plan It* to \$500 for JPMorgan Chase's *My Chase Plan*. See American Express, *Pay it Plan it*, <https://www.americanexpress.com/us/credit-cards/features-benefits/plan-it/prospect-plan.html> (last visited June 20, 2019); see also, *supra* note 289.

²⁹¹ Chase's Blueprint allowed consumers to split off certain purchases and pay them back with fixed payments. The feature was phased out in 2018. Robin Saks Frankel, *Chase to Scrap Blueprint, Its Card Management Program*, NerdWallet (Sept. 24, 2018), available at <https://www.nerdwallet.com/blog/credit-cards/chase-ending-blueprint-credit-card-management-program/>.

The second set of new repayment options for credit card accounts consists of features that provide a payment plan for purchases yet to be made. Multiple issuers offer cardholders the opportunity to receive a cash disbursement from an unused portion of their credit line, which is repaid in equal monthly payments over a set period of time. These initiatives allow the issuers to increase consumer use of portions of credit line that are not currently being used. A card issuer may offer this feature to cardholders that meet certain basic eligibility checks, such as satisfactory payment history on the card and meaningful unused line size. Cardholders may be able to select different lengths of repayment, depending on their eligibility. The transactions extended under this feature are repaid using equal monthly payments for a set period of time.²⁹²

These features and their structures implicate a broad array of regulatory provisions. Card issuers working in this space must navigate a complex regulatory landscape, including, but not limited to, limitations on APR and fee increases, payment allocation rules, and ability-to-pay requirements. Costs for consumers may differ from the costs of other balance items when using new repayment options.

8.2 Innovation at the physical point-of-sale

Beyond lending, innovation continues to focus on streamlining the consumer experience at the physical POS, providing greater speed, security, or convenience for consumers and merchants. Three significant developments are evident at the physical POS.

First, beginning in early 2018, all four major U.S. card networks eliminated signature requirements for EMV “chip” card transactions.²⁹³ As merchant adoption of EMV terminals

²⁹² See, e.g., Citi, *Citi Flex Loan*, <https://www.citi.com/credit-cards/creditcards/citi.action?ID=flex-loan> (last visited June 13, 2019). See also Ethan Steinberg, *Chase to Introduce Two New Credit Card Financing Options*, The Points Guy (June 1, 2019), available at <https://thepointsguy.com/news/my-chase-plan-my-chase-loan/>.

²⁹³ The EMV standard, often referred to as “chip” or “smart card” technology, is a security standard for credit and debit card transactions developed in the mid-1990s. The technology is most closely identified with a microchip embedded in a payment card, and is already widely used throughout much of the rest of the world outside of the U.S., particularly in developed economies such as Canada, Australia, and western Europe. EMVCo, which manages

increased following the October 2015 liability shift, networks observed declines in fraud on transactions at EMV-enabled merchants. The elimination of the signature requirement in reliance on digital authentication technology could increase transaction speed for consumers and merchants.

Second, near-field communication (NFC) acceptance at the physical POS continues to increase. NFC-enabled terminals allow for the two-way transmission of payment-related information without physical contact between the payment device and merchant terminal. As covered in the 2015 Report, many mobile wallets allow consumers to store payment information and make payments via smartphones or other digital devices.²⁹⁴ Several of these mobile payments use NFC technology, meaning that consumers can purchase goods and services at any business that has an NFC-enabled payment terminal. Early on, relatively few merchants supported such payments and consumer adoption was small. In the last few years, however, the number of retail locations supporting NFC mobile wallets has nearly doubled.²⁹⁵ Deployment of NFC terminals was initially delayed by the imminent transition to EMV, but now nearly all new terminals are

the EMV specification, estimates that as of the second quarter of 2018, nearly 70 percent of card-present global transactions utilized the specification. See EMVCo, *EMV Chip Deployment Statistics*, <https://www.emvco.com/about/deployment-statistics/> (last visited March 18, 2019).

²⁹⁴ Most notably, smartwatches. See Conor Allison, *Google Pay: What it is, which smartwatches support it and how to use it*, Wareable (Mar. 26, 2019), available at <https://www.wareable.com/android-wear/how-to-set-up-use-android-pay-wear-smartwatch>. See also Apple, *How to use Apple Pay*, <https://support.apple.com/en-us/HT201239> (last visited June 20, 2019).

²⁹⁵ For example, in early 2017, several years after its launch, Apple Pay was accepted at 36 percent of retail locations. As of early 2019, Apple reported that Apple Pay is accepted at 65 percent of retail locations. Retailers that support Apple Pay also support other mobile wallets such as Google Pay. See Press Release, Apple, *Apple Pay coming to Target, Taco Bell and more top US retail locations* (Jan. 22, 2019), available at <https://www.apple.com/newsroom/2019/01/apple-pay-coming-to-target-taco-bell-and-more-top-us-retail-locations>. See also Juli Clover, *Apple Pay Now Supported by 36% of Merchants in the United States*, MacRumors (Feb. 7, 2017), available at <https://www.macrumors.com/2017/02/07/apple-pay-36-percent-united-states/>.

capable of accepting NFC transactions.²⁹⁶ An industry analyst reports that consumer adoption of mobile wallets was stagnant from 2015 to 2017.²⁹⁷

Third, contactless cards—common in many other countries—are becoming more common in the United States as several large issuers are providing cards with an embedded antenna.²⁹⁸

Generally, contactless cards contain technology that allows the transmission of card information to the reader, but cannot receive information from a device as is possible with NFC-equipped mobile devices.²⁹⁹ Contactless cards were initially launched by issuers in the mid-2000s but failed to gain significant uptake in large part due to limited acceptance at merchants. Recent payment terminal upgrades and consumer familiarity with contactless mobile wallet payments has led card companies to return to issuing contactless cards.³⁰⁰ The current generation of contactless cards may be used for contactless payments at NFC-enabled payment terminals and may also be used for traditional ‘dip’ or ‘swipe’ payments using the EMV chip or magnetic strip. Contactless payment provides faster transaction time than current EMV payments. As with

²⁹⁶ Thad Peterson, *Contactless Cards in America—When, Oh When, Will They Appear?*, Digital Transactions (Nov. 1, 2018), available at https://www.digitaltransactions.net/magazine_articles/contactless-cards-in-america-when-oh-when-will-they-appear/. See also PYMNTS, *Visa: Why the US Is Finally Ready for Contactless*, PYMNTS.com (Sept. 25, 2018), available at <https://www.pymnts.com/visa/2018/contactless-cards-payments-mobile-wallet-pos-emv-apple-pay/>.

²⁹⁷ Press Release, Javelin, *Merchants Winning the Battle for Mobile Wallet Supremacy* (Sept. 7, 2018), available at <https://www.javelinstrategy.com/press-release/merchants-winning-battle-mobile-wallet-supremacy>.

²⁹⁸ Contactless adoption has lagged behind other parts of the world in part because the United States was slower to migrate to EMV—a change that precipitated widespread upgrades to terminals able to support EMV and contactless. See Jim Daly, *As U.S. Contactless Card Payments Ramp up, Canada and the U.K. Point the Way to Mass Adoption*, Digital Transactions (May 21, 2019), available at <https://www.digitaltransactions.net/as-u-s-contactless-card-payments-ramp-up-canada-and-the-u-k-point-the-way-to-mass-adoption/>.

²⁹⁹ James Thrasher, *RFID vs. NFC: What’s the Difference?*, RFID Insider (Oct. 11, 2013), available at <https://blog.atlasrfidstore.com/rfid-vs-nfc>.

³⁰⁰ Jim Daly, *Contactless II*, Digital Transactions (Apr. 2, 2018), available at http://www.digitaltransactions.net/magazine_articles/contactless-ii/. See also Marianne Crowe & Elisa Tavilla, *Tap to Pay: Will Contactless Cards Pave the Way for NFC Mobile Payments in the U.S.?*, Fed. Reserve Bank of Boston (Apr. 23, 2019), available at <https://www.bostonfed.org/publications/payment-strategies/tap-to-pay-will-contactless-cards-pave-the-way-for-nfc-mobile-payments-in-the-us.aspx>.

mobile payments, contactless cards transmit tokenized one-time payment codes, securing the card payment credentials. However, in contrast to mobile payments, contactless cards do not act as a means of user authentication and do not prevent use of a stolen card.

8.3 Risk management innovation

Issuers are incorporating technological advancements and new data into risk-scoring models used for underwriting and for fraud management.

8.3.1 Credit risk management innovation

Recent innovations in underwriting may enable credit card issuers to offer credit to more people more cheaply by leveraging new technology and the rising availability of new data sources. New underwriting solutions allow card companies to better evaluate credit risks to issue cards to thin-file and no-file consumers with greater confidence. The Bureau estimates 26 million U.S. adults lack sufficient data to generate a typical credit bureau score, either because they do not possess any reported credit history or because their credit history is limited or stale.³⁰¹ Underwriting innovations have the potential to expand credit inclusion to portions of this population. An increasing ability for lenders to accurately assess risk could reduce the price of credit for those who are shown to be good risks (although it could *increase* the price of credit for those shown to be worse risks), and might even reduce the overall average price of credit for those who qualify for credit.³⁰²

³⁰¹ See Office of Research, Bureau of Consumer Fin. Prot., *Data Point: Credit Invisibles*, (May 2015), http://files.consumerfinance.gov/f/201505_cfpb_data-point-credit-invisibles.pdf.

³⁰² The efficacy of these new data and computational techniques used for the purposes of credit risk management is still being understood. At least one non-profit organization, FinRegLab is partnering with industry to research the use of alternative data. See FinRegLab, *Advancing the Safe & Smart Use of Technology & Data in Financial Services*, <https://finreglab.org/> (last visited July 19, 2019).

Over the past several years, credit risk management innovation has focused on two areas: first, expanding the pool of eligible loan candidates; and second, developing tools that identify credit risk more effectively. Achieving either goal may involve the use of new datasets beyond the traditional credit repayment history data creditors have relied upon for decades. In addition, either may include analytical approaches, such as models that more heavily weigh recent credit behavior (also known as “trended data” solutions), and solutions that rely on machine learning to find new predictive combinations of indicators.³⁰³

NEW DATA SOURCES

Traditional credit scores use information available on standard credit reports sourced from one of the three national credit reporting agencies (NCRAs). Such information includes credit history, debts in collection, and bankruptcies.³⁰⁴ Companies that build tools to aid the assessment of credit risk, however, have frequently invested in alternative sources of data. For example, companies have invested in data such as consumer payment history on non-financial products that have recurring billing, such as rent, telecommunications, and utilities.³⁰⁵ More recently, cash flow data from checking accounts has been leveraged.³⁰⁶ There are recent

³⁰³ For some consumers, the use of new sources of information and analytical approaches may be a way to gain access to credit. Some commentators have raised concerns that new information sources and analytical approaches may pose risks to consumers or may not be in compliance with regulatory requirements. *See* 82 Fed. Reg. 11183 (Feb. 21, 2017), NCLC Comment Letter, at 11.

³⁰⁴ Prior to July 2017, NCRAs included information on tax liens and civil judgments on consumer credit files. *See* Eric Ellman, *Statement Consumer Data Industry Association*, Consumer Data Industry Ass’n (Mar. 13, 2017), https://s3.amazonaws.com/rdcms-cdia/files/production/public/PDFs/FNL.3.13.CDIA_Media_Statement_Liens.pdf.

³⁰⁵ For example, NCTUE maintains a database of consumer payment information reported by utility and telecom providers, Experian RentBureau houses payment data reported by large landlords, and MicroBilt provides credit reports and scores that leverages the aforementioned data elements and more. *See* Nat’l Consumer Telecom & Utilities Exchange, *Mission Statement*, <https://www.nctue.com/about-us> (last visited July 19, 2019); Experian, *Unlock the Power of Rental Payment Data*, <https://www.experian.com/rentbureau/renter-credit.html> (July 19, 2019); and MicroBilt, *Lend Smarter. Collect Quicker. Grow Your Business.*, <https://www.microbilt.com/> (last visited July 19, 2019).

³⁰⁶ Checking account data is consumer-permissioned and is provided to score developers and issuers through data aggregation technology.

indications that these new data sources may become more broadly used for credit card underwriting. Important developments include the following:

- In 2015, credit-scoring company FICO introduced FICO Score XD, a score that uses traditional credit report information as well as—for consumers that lack sufficient credit history to generate a score using a credit report alone—telecommunications and utility payments, and public records and property data. The score is designed to share the same scale (300–850) and odds-to-score relationships as other FICO models.³⁰⁷ With the additional data, FICO reports being able to provide scores for more than half of previously unscored consumers.³⁰⁸
- Cash flow-based underwriting is an emerging trend that also depends on consumer-permissioned access to transaction data. As with other alternative data sources, cash flows may allow lenders to assess the credit risk of no-file and thin-file consumers with greater certainty. One company using such data offers perks and rewards with its credit cards that are not typical for entry level cards. Another purports to provide higher credit limits and lower interest rates than competitors, along with not charging any fees to customers. Yet another has a special application channel for international students studying in the United States.³⁰⁹
- In addition to card companies that have developed credit risk scoring models in-house, there is at least one commercially-available credit score, UltraFICO, which considers

³⁰⁷ The odds-to-score relationship describes the repayment odds at a given credit score.

³⁰⁸ FICO, *FICO Score XD*, <https://www.fico.com/en/latest-thinking/product-sheet/fico-score-xd> (last visited July 19, 2019).

³⁰⁹ International students are likely to benefit from the use of cash flow underwriting because they typically lack credit history in the U.S. and do not possess a social security number.

consumers cash flows from consumer permissioned access to transaction account data.³¹⁰

- In 2019, CRA Experian launched Boost, which allows individual consumers to permission access to bank account transaction data from which Experian records payments to telecommunications and utilities providers.³¹¹ Experian then adds positive payment history to Experian credit files for as long as the consumer stays enrolled. Experian reports that among a sample of consumer FICO scores, 10 percent of thin-file consumers became scoreable after using Experian Boost. Experian also reports credit score improvements among those that started with a score below 680.³¹²

OTHER INNOVATIONS

New analytical approaches, which are often combined with alternative data sources, are being used more frequently than in the past for consumer loan underwriting. One analytical approach new in the last several years, trended data, is being applied by some score developers to standard credit bureau data.³¹³ Traditionally, credit bureau scores consider discrete events within a credit history, such as the occurrence of a 60-day delinquency. In contrast, trended data considers the trend in credit behavior over time to help inform whether a consumer's credit standing is improving or worsening.³¹⁴ It does so by looking at specific data fields within a credit report, when they are available, such as the actual payment amount consumers make toward an

³¹⁰ As of this writing, UltraFICO is in its pilot phase. FICO, *UltraFICO*, <https://www.fico.com/ultrafico/> (last visited July 19, 2019).

³¹¹ Commercially available credit scores have long considered payments to telecommunications and utilities providers when this information is present on a consumer credit report; however, such information is rarely present on credit reports.

³¹² Susan Henson, *Introducing Experian Boost, a New Way to Instantly Improve Your Credit Scores*, Experian (Apr. 8, 2019), available at <https://www.experian.com/blogs/ask-experian/introducing-experian-boost/>.

³¹³ Lisa Prevost, *A Focus on Credit History for Mortgage Approvals*, N.Y. Times (Oct. 25, 2015), available at <https://www.nytimes.com/2015/10/25/realestate/a-focus-on-credit-history-for-mortgage-approvals.html>.

³¹⁴ VantageScore, *VantageScore Solutions Debuts VantageScore 4.0 Credit Scoring Model*, (Apr. 3, 2017), available at <https://www.vantagescore.com/news-story/226/vantagescore-solutions-debuts-vantagescore-40-credit-scoring>.

outstanding balance.³¹⁵ Other approaches include the application of machine learning to risk scoring. Several known applications of machine learning based underwriting models exist in the subprime and non-credit card market.³¹⁶ In addition, at least one new credit card company utilizes machine learning to evaluate credit risk and other card companies may also be exploring the use of machine learning-based credit scoring models as means to drive higher approval rates without sacrificing credit risk.³¹⁷ It has been reported that one large retailer has encouraged partner banks to consider vendors that specialize in machine learning models.³¹⁸

While technological advancements may benefit the credit card market, they may also present some risks. New technology has the potential to expand credit access, improve issuers' risk assessment, and provide better service and convenience to consumers. However, certain advancements may have unintended side effects, including the potential for unlawful lending discrimination, or misunderstanding by consumers. The Bureau is interested in promoting innovation that may help extend affordable, responsible credit to more people, while at the same time ensuring compliance with applicable Federal and State law, so that consumers are treated fairly and remain protected.

³¹⁵ In response to the Bureau's Request for Information a commentator noted that sometimes credit card issuers do not report information to the credit bureaus that trended data models rely upon. *See* NCLC Comment Letter, at 10.

³¹⁶ Becky Yerak, *AI Helps Auto-Loan Company Handle Industry's Trickiest Turn*, Wall St. J. (Jan. 3, 2019), available at <https://www.wsj.com/articles/ai-helps-auto-loan-company-handle-industrys-trickiest-turn-11546516801>. *See also* Penny Crosman, *Is AI making credit scores better, or more confusing?*, American Banker (Feb. 14, 2017), available at <https://www.americanbanker.com/news/is-ai-making-credit-scores-better-or-more-confusing>.

³¹⁷ John Adams, *Can artificial intelligence match credit cards to millennials?*, PaymentsSource (Sept. 8, 2017), available at <https://www.paymentsource.com/news/petal-uses-artificial-intelligence-to-lure-millennials-to-credit-cards>.

³¹⁸ AnnaMaria Andriotis, *The \$10 Billion Tussle Over Walmart's Credit Cards*, Wall St. J. (Oct. 24, 2018), available at <https://www.wsj.com/articles/the-10-billion-tussle-over-walmarts-credit-cards-1540378800>.

8.3.2 Fraud risk management innovation

Fraud remains a constant and costly reality of the credit card market. One recent estimate pegged total 2017 debit and credit card fraud at \$24.26 billion, and projected that to increase to \$34.66 billion by 2022.³¹⁹ This subsection briefly reviews fraud trends, then covers a number of trends in fraud prevention.

CARD-PRESENT FRAUD AND EMV ADOPTION

Card-present transactions involve physical cards and are susceptible to stolen or counterfeit card fraud. This type of fraud is continuing to decline in the wake of EMV roll-out in the United States. Visa, for example, reports that the dollar volume of counterfeit card fraud on its network has decreased 80 percent from September 2015 to September 2018 for merchants that have upgraded to chip-enabled terminals.

The adoption of EMV technology in the U.S. has been accompanied by the so-called “liability shift” that occurred in October 2015. It required liability for losses in card-present transactions to shift to whichever party—the card issuer or the merchant acquirer—had not implemented the EMV standard. By the end of 2018, U.S.-issued debit and credit chip cards in circulation totaled over 840 million, representing 61 percent of all U.S.-issued Visa cards.³²⁰

CARD-NOT-PRESENT (CNP) FRAUD

CNP transactions introduce additional security complications surrounding identity and authentication. As EMV technology has targeted card-present fraud and digital commerce has become more prevalent, fraudsters have shifted their focus to CNP fraud. Tokenization, discussed in detail in the 2015 Report, was introduced to limit the value of payment data breaches, however, there has been a simultaneous boom in digital commerce transactions. The U.S. Department of Commerce estimates that total e-commerce sales for 2018 were \$513.6

³¹⁹ See The Nilson Report, *No. 1142*, (Nov. 2018).

³²⁰ See EMVCo, *supra* note 293.

billion, up 14.2 percent from 2017.³²¹ As of 2018, over half of all debit and credit card fraud losses worldwide are from CNP transactions, totaling \$6.5 billion.³²²

Card-not-present fraud also involves a different set of liabilities. Unlike card-present fraud, in which the credit card issuer generally bears financial liability absent specific circumstances allowing chargeback under network rules, merchants generally bear the financial liability in card-not-present fraud cases.

TRENDS IN FRAUD AND FRAUD PREVENTION

A consistent theme cutting across various types of fraud is the difficulty of verifying a customer's identity. The plethora of recent data breaches have compromised a vast amount of consumer data that can be used to commit fraud. According to one estimate, since 2013 nearly 15 billion data records have been lost or stolen.³²³

Struggles with identity verification begin with application fraud. Using stolen or synthetic identifying information, fraudsters apply for financial products that can then be used for fraudulent payments and account access.³²⁴ One estimate predicts financial institutions' costs associated with credit card application fraud will reach \$781 million by 2020.³²⁵ Even if a consumer has been successfully identified in the application process, any credit card purchase can be a result of account takeover fraud. Fraudsters gain access to a customer's account itself,

³²¹ U.S. Census Bureau News, U.S. Department of Commerce, *Quarterly Retail E-commerce Sales*, 4th Quarter 2018, (Mar. 13, 2019) available at <https://www.census.gov/retail/index.html#ecommerce>.

³²² See The Nilson Report, No. 1142, (Nov. 2018).

³²³ See Breach Level Index, *Data Breach Statistics*, <https://breachlevelindex.com/> (last visited Mar. 18, 2019).

³²⁴ Synthetic fraud occurs when there is no real-world person from which identifying information is stolen. Instead, fraudsters manufacture identities with information required for credit applications.

³²⁵ Shirley W. Inscoe, *Application Fraud: Fighting an Uphill Battle*, Aite (Dec. 11, 2018), available at <https://aitegroup.com/report/application-fraud-fighting-uphill-battle>.

providing them the opportunity to reroute communications and potentially access other financial products and services at the financial institution without the consumer's knowledge.

Traditional fraud models attempt to pinpoint fraud by checking a single transaction against a number of rules that result in a pass/fail decision. For example, if a transaction is above a certain threshold or made in a foreign country, it might be flagged as fraudulent. These rules have been easy for fraudsters to learn and evade. In addition, the traditional model's rigidity caused a substantial number of non-fraudulent transactions to be denied. One source estimates that 70 percent of transactions that were declined due to fraud were false positives.³²⁶ These false positives cause issuers and merchants to lose out on authentic sales and customer loyalty.

Issuers and payment networks are investing in more adaptive technologies and strategies to better combat fraud loss. Important developments include the following:

- **Machine learning:** Unlike the system of rigid decisions in traditional fraud detection, machine learning systems can adapt more quickly to variations in data, learning to better identify fraudulent transactions over time. Machine learning fraud prevention efforts use thousands of individualized data checks on any one transaction to increase the likelihood of accurately identifying a fraudulent or permissible payment.³²⁷
- **Dynamic CVV:** If a credit card's card number, expiration date, and CVV code have been collected, a fraudulent card-not-present transaction is difficult to prevent. At least one

³²⁶ Al Pascual, *The Financial Impact of Fraud: Merchants Challenged as E-commerce Fraud Rises Post-EMV*, Javelin (Oct. 25, 2016), available at <https://www.javelinstrategy.com/coverage-area/financial-impact-fraud>.

³²⁷ As with underwriting, the use of AI for fraud control raises concerns of unintentional bias, which can affect consumers through declined transactions and closed accounts. Rob Matheson, *Reducing False Positives in Credit Card Fraud Detection*, MIT News (Sept. 20, 2018), available at <http://news.mit.edu/2018/machine-learning-financial-credit-card-fraud-0920>. See also Penny Crosman, *Can AI's 'black box' problem be solved?*, American Banker (Jan. 1, 2019), available at <https://www.americanbanker.com/news/can-ais-black-box-problem-be-solved>.

issuer is experimenting with dynamic CVV codes on credit cards which will refresh periodically, rendering previously gathered card information inaccurate.³²⁸

- 3D Secure 2.0: 3D Secure was developed by the major card networks in 2001 as an additional layer of fraud protection. The 3D Secure process requires consumers to take steps to authenticate themselves in the course of a transaction. This process has contributed to increases in cart abandonment as consumers are routed through additional authentications steps. 3D Secure 2.0 is being introduced in 2019 and includes multi-platform digital support, additional contextual data share between merchants and issuers, and a more frictionless authentication experience.³²⁹
- Secure Remote Commerce (SRC): An additional joint card network effort, SRC is a still-developing standard for card payments in digital commerce. The approach would do away with the current standard of inputting card credentials, a commonly-cited friction point in the payments process. SRC is focusing on interoperability, raising the possibility that consumers may someday only interact with one “Pay” button at the digital point-of-sale that can accommodate many types of payments.³³⁰ Merchants have raised concerns that SRC requirements will lead higher shopping cart abandonment and could limit merchants’ transaction-routing choices.³³¹

³²⁸ PNC, *Innovation in Fraud Protection*, <https://www.pnc.com/en/corporate-and-institutional/treasury-management/resources/payment-solutions-news/innovations-in-fraud-protection.html> (last visited June 27, 2019).

³²⁹ See Visa, *FAQ: Visa 3-D Secure 2.0*, <https://technologypartner.visa.com/Download.aspx?id=681> (last visited June 27, 2019).

³³⁰ See EMVCo, *EMV Secure Remote Commerce*, <https://www.emvco.com/emv-technologies/src/> (last visited July 19, 2019).

³³¹ John Stewart, *Networks Say SRC Will Go Live Later This Year to Simplify—And Secure—Digital Checkouts*, Digital Transactions (June 7, 2019), available at <https://www.digitaltransactions.net/networks-say-src-will-go-live-later-this-year-to-declutter-and-secure-digital-checkouts/>.

APPENDIX A: SUPPORTING FIGURES

Figure 1: AVERAGE APR, GENERAL PURPOSE (Y-14+)

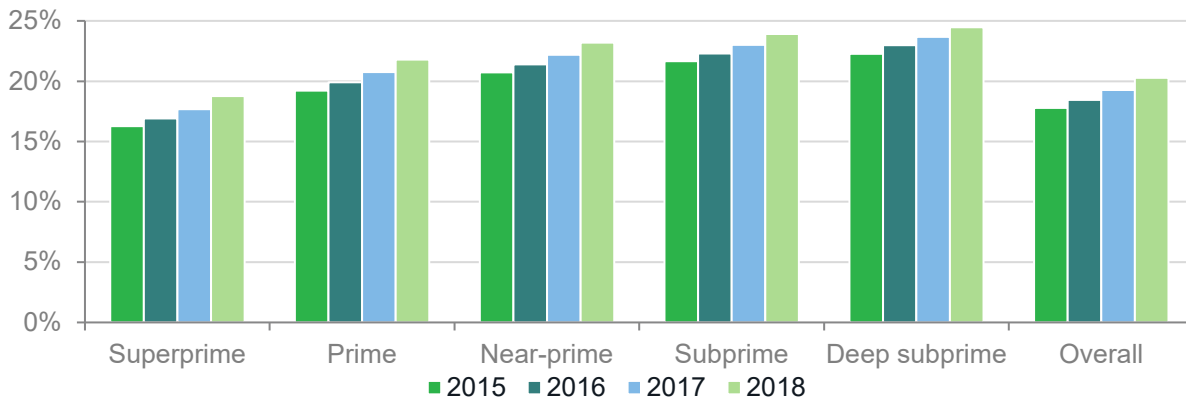


Figure 2: AVERAGE APR, PRIVATE LABEL (Y-14+)

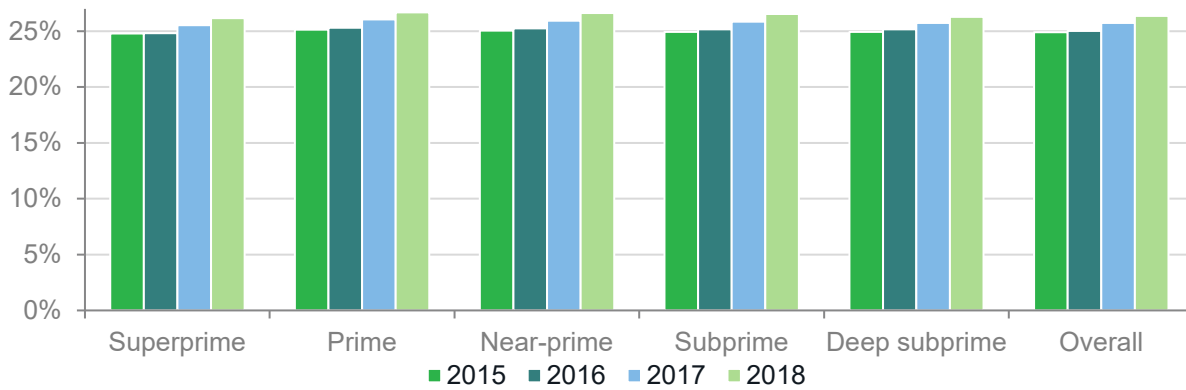


Figure 3: FEDERAL FUNDS RATE COMPARED TO WSJ PRIME RATE(WSJ,FEDERAL RESERVE)³³²

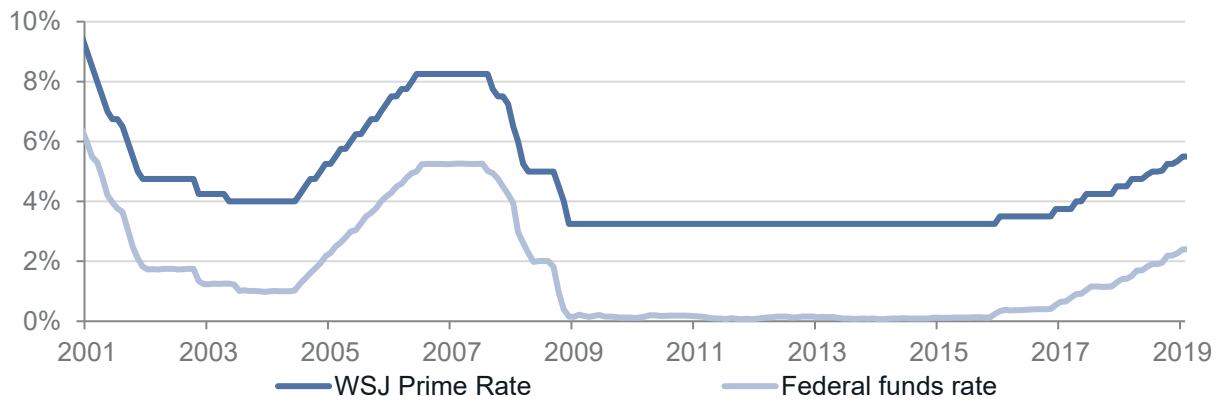
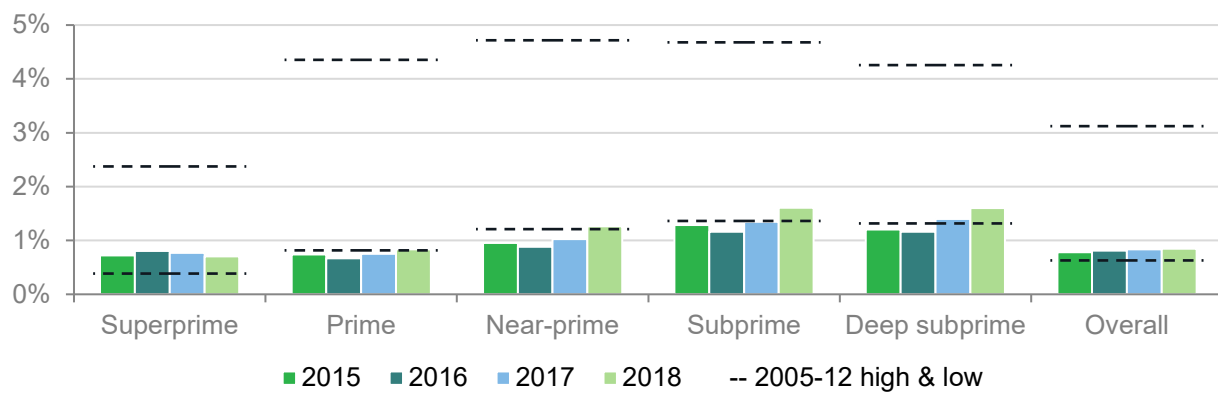


Figure 4: AVERAGE QUARTERLY CREDIT LINE DECREASE INCIDENCE, GENERAL PURPOSE (CCP)



³³² Fed. Reserve Bank of St. Louis, *Effective Federal Funds Rate*, <https://fred.stlouisfed.org/series/fedfunds> (last visited June 13, 2019); Wall St. J., *Market Data Center*, <https://www.wsj.com/market-data/bonds/moneyrates> (last visited June 13, 2019).

Figure 5: AVERAGE QUARTERLY CREDIT LINE DECREASE INCIDENCE, PRIVATE LABEL (CCP)

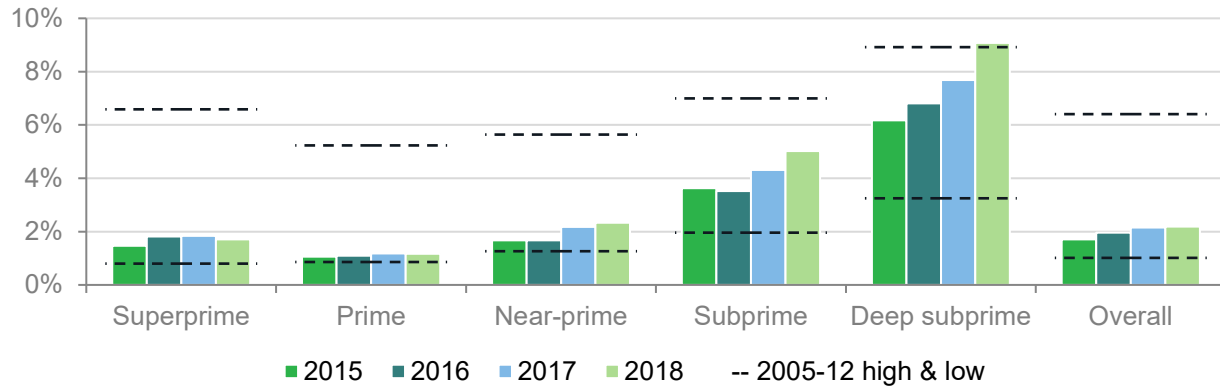


Figure 6: MEDIAN CREDIT LINE DECREASE AMOUNT, GENERAL PURPOSE (CCP)

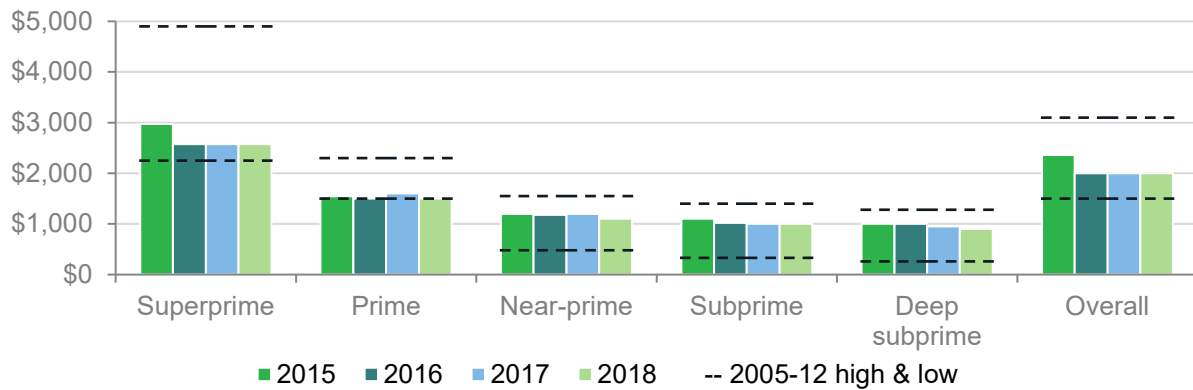


Figure 7: MEDIAN CREDIT LINE DECREASE AMOUNT, PRIVATE LABEL (CCP)

