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Consumer Experiences with Credit Cards

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By offering consumers both a means to pay for goods and services and a source of credit to finance such purchases, credit cards have become the most widely used credit instrument in the United States. As a payment device, credit cards are a ready substitute for checks, cash, and debit cards for most types of purchases. Credit cards facilitate transactions that would otherwise be difficult or costly, such as purchases over the Internet, by telephone, or outside the country. As a source of unsecured credit, credit cards provide consumers the option to finance at their discretion the purchase of an item over time without having to provide the creditor some form of collateral such as real estate or a vehicle. Moreover, the small required minimum payments on credit card balances allow consumers to determine themselves how quickly they want to repay the borrowed funds. Credit cards have other benefits as well, such as security protections on card transactions and rewards for use. All of these features have been valuable to consumers and have helped promote the widespread holding and use of credit cards.

Recent fluctuations in economic activity and changes in the regulation of credit cards have greatly affected the credit card market. As a consequence of the Great Recession and the slow economic recovery that has ensued, many consumers have experienced difficult financial circumstances.[1] During much of this period large numbers of consumers fell behind on their credit card payments, causing delinquency and charge-off rates to rise sharply. As a further sign of weakness in the market, outstanding balances on revolving credit, nearly all of which is credit card debt, fell for the longest consecutive number of months since national statistics have been kept and have only recently begun to rebound slowly. The situation has improved markedly since the end of the recession, particularly regarding the incidence of delinquency and default, but some of the effects of the downturn still linger, such as reduced levels of borrowing and more-restrictive underwriting.

The credit card market has been further buffeted by new consumer protection regulations, most notably the Credit Card Accountability Responsibility and Disclosure Act of 2009 (the Credit Card Act).[2] The Credit Card Act sought to improve disclosure of account terms and conditions to consumers. The act also restricts a number of card issuer practices that the Congress deemed to be unfair, deceptive, or not sufficiently transparent. The provisions of the Credit Card Act were implemented in phases, but all are now in effect. Among the provisions of the act are limits on "penalty" fees for making late payments or exceeding credit limits; rules that specify how creditors must allocate consumer payments to outstanding balances; and restrictions on certain risk-management practices by card issuers, particularly limiting their ability to raise the interest rate on an outstanding balance unless the account payments are significantly in arrears or the interest rate on the account is variable (tied to an index). Each of these provisions affects the revenues and costs of card issuers. (For further details about the provisions of the Credit Card Act, see the box "The Credit Card Accountability Responsibility and Disclosure Act.")

1 The Great Recession dates from December 2007 through June 2009.

2 The Credit Card Act (Pub. L. No. 111-24, 123 Stat. 1734 (2009)) was signed into law on May 22, 2009.

The Credit Card Accountability Responsibility and Disclosure Act

The Credit Card Accountability Responsibility and Disclosure Act of 2009 (the Credit Card Act) is a federal statute intended to establish fair and transparent practices for the extension of credit under open-end credit plans, including credit card accounts. The Credit Card Act amended the Truth in Lending Act of 1968 (TILA) and was implemented under the Federal Reserve Board's Regulation Z in three phases, with implementation dates of August 20, 2009; February 22, 2010; and August 22, 2010, for the various provisions.[1] Responsibility for TILA transferred from the Federal Reserve Board to the Consumer Financial Protection Bureau on July 21, 2011.

Historically, TILA relied primarily on mandatory dissemination of standardized information to protect consumers, based on the premise that if creditors provide clear, complete, and conspicuous disclosure of account terms and conditions, consumers can make informed choices about their use of credit, and that such informed use encourages consumer shopping and promotes competition. The act and subsequent amendments contained a few substantive restrictions, but by and large the regulation created disclosure requirements.

Over time, however, advocates for substantive regulation became influential. These advocates argued that certain common underwriting, pricing, and risk-management practices in the industry were not transparent and were fundamentally unfair to cardholders. They argued further that such practices may have contributed to consumers' becoming excessively indebted and incurring substantial and unnecessary expenses. As these practices were widespread and difficult for consumers to understand, advocates for substantive regulation argued that disclosures would be ineffective to address them. Many provisions of the Credit Card Act are motivated by such arguments.

The Credit Card Act is comprehensive in its reach, touching on nearly all aspects of card issuers' interactions with prospective and current cardholders. The act modifies the disclosures that consumers receive both before an account is established and once the account has been opened. Among the changes is the introduction of disclosures related to minimum payments, including a disclosure of how long it would take to pay off a balance if the cardholder made only the required minimum monthly payments. The act contains many substantive requirements addressing practices that the Congress deemed to be unfair or deceptive, including so-called universal default.[2] Through some of its key provisions, the act

- requires card issuers to provide account holders a reasonable period of time to pay their bills
- establishes a hierarchy for the allocation of payments received in excess of the required minimum payment, requiring that balances incurring the highest rate of interest be paid off first
- requires cardholders to give permission to card issuers to allow transactions that would cause the cardholders to exceed their credit limit
- bans increases in interest rates on balances incurred in the first year after an account is opened and restricts increases of interest rates on existing balances incurred in subsequent years; in particular, issuers may not increase interest rates on existing balances unless the account falls significantly in arrears
- limits the amount of fees charged for making late payments or for exceeding credit limits
- limits fees on cards with low credit limits
- restricts marketing and underwriting practices regarding cards issued to consumers under 21 years of age
- requires issuers to consider a consumer's ability to pay before any account is established or a credit limit is increased
- enhances disclosures and restricts inactivity fees for gift cards and other stored-value cards

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[1] Regulation Z—Truth in Lending, 12 C.F.R. pt. 226 (1981).

[2] Universal default is the former practice whereby an issuer would raise the interest rate on a customer's credit card account, including balances currently owed, based on factors not directly related to the cardholder's account with that issuer. For example, an issuer might raise the interest rate on a cardholder's account if he or she fell behind on payments on other debts, including those with other creditors.

Card issuers have responded to the changing economic conditions and regulatory environment by altering the prices and terms offered on credit cards, the size of credit lines made available to cardholders, and the marketing of and access to their products. Some of these adjustments are likely to continue to play out over time as card issuers evaluate the effects of their responses and consumers' reactions to these changes.

This article examines consumers' behavior, experiences, and attitudes with regard to credit cards in the aftermath of these economic and regulatory changes. Much of the data for this article are from a Federal Reserve–sponsored nationwide consumer survey conducted in February 2012 by the Thomson Reuters/University of Michigan Surveys of Consumers (Surveys of Consumers). Many of the questions posed in the survey were identical or similar to those asked on earlier surveys also sponsored by the Federal Reserve, making it possible to track changes over time in consumer knowledge, behavior, and attitudes about credit cards and to gain a more complete understanding of consumer experiences with this important financial product.[3] Because consumer attitudes and experiences with credit cards as reflected in responses to consumer surveys may be affected by conditions in the broader economy, we first present information from various sources about conditions in the credit card market prior to the consumer survey that was conducted in February 2012. Among the sources are credit record data and credit scores derived from these data, which shed light on recent changes in the credit card market, particularly as these changes relate to payment performance and access to credit.[4] We then examine responses to the consumer survey, taking into account some of the important differences found in how consumers use their credit cards and in their financial and other circumstances.

The majority of credit cards are general-purpose cards or so-called bankcards issued under the Visa, MasterCard, Discover, or American Express brand. The rest of the credit card market consists largely of cards issued by stores and by gas companies. Unless otherwise noted, most of the analysis that follows focuses on bankcards, as their general-purpose capability distinguishes them from the various other types of credit cards and from charge cards.[5]

The following list highlights several prominent findings from our analysis:

1. Credit cards are an important method of payment and a significant source of consumer credit. In the United States in 2011, bankcards were used for nearly 22 billion transactions valued at an estimated $2.1 trillion. Revolving credit outstanding was

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[3] For a review of findings from earlier Federal Reserve–sponsored surveys focused on consumer use of credit cards, see Thomas A. Durkin (2000), "Credit Cards: Use and Consumer Attitudes, 1970–2000," *Federal Reserve Bulletin*, vol. 86 (September), pp. 623–34, www.federalreserve.gov/pubs/bulletin/2000/00index.htm; Thomas A. Durkin (2002), "Consumers and Credit Disclosures: Credit Cards and Credit Insurance," *Federal Reserve Bulletin*, vol. 88 (April), pp. 201–13, www.federalreserve.gov/pubs/bulletin/2002/02index.htm; and Thomas A. Durkin (2006), "Credit Card Disclosures, Solicitations, and Privacy Notices: Survey Results of Consumer Knowledge and Behavior," *Federal Reserve Bulletin*, vol. 92 (August), pp. A109–A121, www.federalreserve.gov/pubs/bulletin/2006/06index.htm. Also see Board of Governors of the Federal Reserve System (2006), *Report to the Congress on Practices of the Consumer Credit Industry in Soliciting and Extending Credit and Their Effects on Consumer Debt and Insolvency* (Washington: Board of Governors, June), www.federalreserve.gov/publications/other-reports/default.htm.

[4] The credit scores used here indicate the likelihood of serious delinquency, bankruptcy, or another derogatory event over the next two years based on the information in an individual's credit report. In most credit scoring systems and for the scores used here, lower scores represent a greater risk of default than higher scores.

For a comprehensive discussion of credit scores, see Board of Governors of the Federal Reserve System (2007), *Report to the Congress on Credit Scoring and Its Effects on the Availability and Affordability of Credit* (Washington: Board of Governors, August), www.federalreserve.gov/publications/other-reports/default.htm.

[5] Charge cards, which are primarily a means of payment, have been available since the beginning of the 20th century. Charge cards provide temporary credit for up to a month but do not have the revolving feature that distinguishes credit cards. See Lewis Mandell (1972), *Credit Card Use in the United States* (Ann Arbor: Institute for Social Research, University of Michigan).

$847 billion and constituted 32 percent of all consumer credit outstanding at the end of 2011.

2. The Great Recession triggered a significant upswing in delinquencies and charge-offs on credit cards, although cardholder payment performance has improved markedly since then. The delinquency rate for bankcards reached 5 percent of the number of outstanding accounts in June 2009, then receded to about 3 percent by the end of 2011.
3. Credit card issuers have responded to the recent economic difficulties in several ways. One response has been to reduce potential losses by reducing the size of credit lines made available to cardholders and by closing accounts. Another response has been to curtail promotional activities, particularly mail solicitations, and to reorient such activities to individuals who pose less credit risk.
4. The share of individuals with credit records holding at least one bankcard was for many years quite stable, at about 80 percent, until the onset of the Great Recession. Since then the incidence of cardholding has fallen to about 72 percent. The reduction in the incidence of cardholding appears to have come from individuals in all credit score groups, although the largest percentage declines were among those with scores that are associated with elevated default rates. Both the Great Recession and regulatory restrictions on risk-management practices likely contributed.
5. Overall, about one-fourth of cardholders surveyed in 2012 reported having an adverse experience related to credit cards in the previous year, such as having an application for a credit card turned down, receiving a lower credit limit than requested, or experiencing an increase in interest rates or fees. For many of these cardholders, these events appear to have been associated with late payments or inactive accounts.
6. Cardholders who had adverse experiences were more likely to have a negative opinion of bankcards than cardholders who did not have adverse experiences. Even so, most cardholders who had adverse experiences were satisfied with their own accounts and believed that their credit card companies treated them fairly.
7. Consumer surveys reveal a trend since 2000 toward greater use of bankcards as a payment medium rather than as a source of credit. In 2000, 50 percent of bankcard holders said that they almost always paid the balance they owed in full; in 2012, the proportion rose to 62 percent. Much of the increase in the share of cardholders who reported that they typically paid in full has occurred since the recent recession and the implementation of the new credit card regulations. The proliferation of rewards cards likely contributed to the increase in the transactions use of credit cards.
8. Opinions about credit card use have polarized since the 1970s, with larger shares of cardholders expressing unqualified views that card use is either a "good thing" or a "bad thing." The share of cardholders who viewed card use as a bad thing rose substantially between 2000 and 2012, while the share of cardholders viewing card use as a good thing was little changed. Many of the negative views appear to stem from respondents' beliefs that credit cards cause problems for other individuals, not for themselves.
9. Despite the increase in negative views, nearly all cardholders continued to believe that credit card companies provide a useful service to consumers. Similarly, almost all cardholders believed that their own credit card companies treated them fairly, and almost all were satisfied in their dealings with the companies, although only about half of the respondents held these beliefs strongly. Most cardholders believed that they could easily get a bankcard from another company if they were not treated well. These beliefs were also strong among cardholders who had experienced adverse actions in the previous year, as mentioned earlier.
10. The share of consumers who believe that Truth in Lending statements are complicated has trended upward over the years. This changing view seems consistent with developments in the credit card market that have led to more-complex product offerings and fee and interest rate structures and, as a consequence, to longer and more-detailed disclosures.

11. In 2012, most of the new cardholders surveyed said that they read account disclosure information and filed it away for possible future use. Those cardholders who were most likely to revolve balances frequently were more likely than others to find disclosure information useful, because much of it involves credit costs and terms that relate to how they use their cards.
12. Cardholder awareness of annual percentage rates (APRs) was high generally, but it was highest among those individuals who used their cards as a source of credit. These findings, which echo those of past consumer surveys, make sense, as these are the cardholders who incur interest payments.
13. Most cardholders who hardly ever paid their monthly balance in full or who made only the required minimum payments believed that credit cards made managing their finances less difficult and were satisfied with their accounts. This belief does not seem to support the hypothesis that consumers overestimate their ability to repay their credit card debt.
14. New disclosures appear to have had little effect on the share of cardholders who make only the required minimum payments.

Disclosures and Consumer Protection

Protecting consumers in their financial transactions has been a long-standing goal of government policy. At the federal level, the Truth in Lending Act of 1968 (TILA) was the first in a series of statutes seeking to protect consumers in their use of credit.[6] Historically, TILA's focus has been on requiring clear and consistent disclosure of key terms of credit arrangements and associated credit costs. In this regard, TILA prescribes uniform methods for computing the cost of credit across different loan products, disclosing credit terms, and resolving errors such as those related to billing and payments. TILA has been amended over the years, most recently by the Credit Card Act with regard to its provisions on credit cards.

A primary goal of TILA is to promote the informed use of credit by consumers. Well-informed consumers are less likely to overextend themselves in their use of credit and are more likely to shop among creditors, helping to ensure that they do not pay excessively high prices or receive unfavorable credit terms. TILA also prohibits or limits certain practices deemed to be unfair or deceptive. For example, in the credit card arena, issuers face limits on the imposition of penalty fees and over-the-limit charges and may not reprice outstanding balances except in limited circumstances, such as when the interest rate on the account is variable or when the cardholder is significantly in arrears on his or her payments.

Historically, credit card lending has been profitable and issuers have competed intensely to acquire new customers, retain existing cardholders, and encourage more-intensive use of their product.[7] Competition has taken many forms as issuers have targeted specific populations to encourage use of cards as a source of credit (for example, by raising credit limits and by offering attractive interest rates on balance transfers) and as a payment device (for example, by offering a variety of rewards tied to card use and generally forgoing annual fees). Issuers have also been aggressive in the use of information to better manage the credit risks associated with credit card lending and to price their products. For example, issuers

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[6] Truth in Lending Act, tit. I, Pub. L. No. 90-321, 82 Stat. 146 (1968). For a comprehensive review of TILA, see Thomas A. Durkin and Gregory Elliehausen (2011), *Truth in Lending: Theory, History, and a Way Forward* (New York: Oxford University Press).

[7] See Board of Governors of the Federal Reserve System (2013), *Report to the Congress on the Profitability of Credit Card Operations of Depository Institutions* (Washington: Board of Governors, June), www.federalreserve.gov/publications/other-reports/credit-card-profitability-2013.htm.

routinely review customers' credit records and other information to decide whether to modify the size of credit lines made available to the customers. Issuers also consider a variety of information when determining which individuals should receive solicitations for credit. Overall, credit card pricing and product features have become more complex over time; while offering new opportunities to consumers, the greater complexity has also presented challenges to consumers in selecting and using cards.

Not only has complexity made it more difficult for consumers to completely understand credit card terms and features, but also the way that issuers have used information has, in some cases, been controversial and may have affected consumers' attitudes about credit card issuers and their products. For example, the use of widely diverse information about a cardholder's financial situation to reprice outstanding balances, as opposed to the use of such information just to price new borrowing, became a controversial practice and was generally prohibited by the Credit Card Act. In addition, the large volume of credit card mail solicitations and other highly visible marketing programs may have fueled a perception that issuers' lending practices were too lenient and encouraged excessive borrowing.

Economic Conditions and Credit Cards

Consumer experiences and attitudes toward credit cards, as reflected in consumer surveys, may be influenced by general economic conditions; consumers' own financial circumstances; the experiences of friends, family members, and acquaintances; and general knowledge conveyed by media reports about the credit card market. Consumers with steady employment and rising incomes, for example, may have different experiences with and perceptions of credit card companies and their products than consumers with stagnant incomes or uncertain employment circumstances, especially if economic hardship results in difficulties in managing debts and making timely payments. The former likely receive regular solicitations from credit card issuers offering favorable terms, larger credit lines and rewards, or other benefits; the latter may face limited access to credit, elevated prices, and reductions in the credit lines made available on their existing accounts.

The following sections describe changes in credit card holding and use over time and issuer responses to the recent developments in the credit card market and the broader economy. This review provides background information for our analysis of responses to the February 2012 survey regarding consumers' recent experiences with and attitudes toward credit cards.

Credit Card Holding and Use

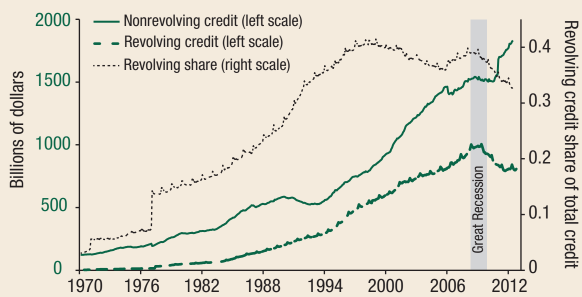
Although credit card holding increased rapidly after the introduction of credit cards in the 1950s, credit card–related borrowing accounted for a very small share of consumer credit for many years. As of 1970 just over half of U.S. households had one or more credit cards.[8] At that time, revolving credit totaled only \$5.1 billion (\$29.4 billion in constant 2012 dollars) and accounted for just 3.8 percent of total consumer credit outstanding (figure 1).[9]

8 Authors' calculations from the 1970 Survey of Consumer Finances, conducted by the Survey Research Center at the University of Michigan. For more information about the survey, see University of Michigan, "About the Survey," http://press.sca.isr.umich.edu/press/about_survey (accessed October 28, 2013). The Survey of Consumer Finances first included questions on credit cards in 1970.

9 The Federal Reserve publishes estimates of consumer credit each month. See Board of Governors of the Federal Reserve System, Statistical Release G.19, "Consumer Credit," www.federalreserve.gov/releases/g19/Current/. Revolving consumer credit consists of balances owed on credit cards and on unsecured personal lines of credit; it does not include home equity lines of credit or mortgage debt. The Federal Reserve first enumerated revolving consumer credit separately in 1968.

Credit card holding and use grew substantially in subsequent years. By 1977, nearly 63 percent of households had credit cards, and revolving credit had increased to $39.3 billion ($144.1 billion in constant 2012 dollars), a nearly fivefold increase in constant dollars; however, it still accounted for only a relatively small share of consumer credit.

Figure 1. Outstanding consumer credit, January 1970–January 2012



Note: Consumer credit excludes loans secured by real estate. Revolving debt consists of balances owed on credit cards and unsecured revolving lines of credit. Nonrevolving debt consists of student loans, automobile credit, and other non-real-estate debt. The shaded bar indicates the period of the Great Recession as defined by the National Bureau of Economic Research.
Source: Federal Reserve Board, Statistical Release G.19, "Consumer Credit."

Less-restrictive interest rate regulation in the early 1980s allowed credit card issuers to charge interest rates that enabled them to expand lending to consumers with higher credit risk and to offer credit cards as a substitute for other types of credit, such as small personal installment loans.[10] In addition, technological advances in information processing greatly enhanced the ability of issuers to evaluate the credit risk of individuals applying for credit cards and to monitor the behavior of existing customers.[11] Issuers' ability to quickly and relatively inexpensively judge the credit risk of prospective borrowers and current customers and to monitor how cardholders use their products allowed them to compete aggressively for new customers, provide larger credit lines, and offer product terms and features better tailored to the needs of consumers. While the innovations that allowed issuers to expand availability and provide distinctive features made the credit card a more useful and attractive product, the increased complexity that ensued also raised concerns, including whether consumers could fully understand the terms and conditions of their cards and whether low minimum-payment requirements encouraged some card users to borrow excessively.[12]

Credit cards have become an important method of payment and a significant source of consumer credit.[13] In 2011, bankcards were used for over 22 billion transactions involving purchases of goods and services valued at an estimated $2.1 trillion.[14] Although down about 16 percent from its historical high, revolving credit outstanding was $847.3 billion and constituted 32 percent of consumer credit outstanding at the end of 2011 (derived from figure 1). Part of the growth in revolving credit has come from the substitution of credit card debt for some types of nonrevolving consumer credit, especially loans previously used to finance purchases of relatively less expensive household durables, such as fur-

[10] The Supreme Court's decision in Marquette National Bank of Minneapolis v. First of Omaha Service Corporation, 439 U.S. 299 (1978), allowed banks to charge out-of-state borrowers local rates. In 1980, South Dakota deregulated interest rates, and Delaware did so in 1981. Many other states deregulated interest rates in the next year.

[11] For a discussion, see Board of Governors, *Report to the Congress on Credit Scoring,* in note 4.

[12] See, for example, Government Accountability Office (2006), *Credit Cards: Increased Complexity in Rates and Fees Heightens Need for More Effective Disclosures to Consumers*, report to the Congress, GAO-06-929 (Washington: GAO, September), www.gao.gov/products/GAO-06-929.

[13] For a comprehensive discussion of the role of credit cards as a medium for payment, see Kevin Foster, Erik Meijer, Scott Schuh, and Michael A. Zabek (2011), "The 2009 Survey of Consumer Payment Choice," Public Policy Discussion Series 11-1 (Boston: Federal Reserve Bank of Boston, April), www.bos.frb.org/economic/ppdp/2011/ppdp1101.htm.

[14] Estimates are derived from the *Nilson Report.* See HSN Consultants Inc. (2012), *Nilson Report,* no. 988 (February), table entitled "U.S. General Purpose Credit Cards," p. 10. The figures exclude charge cards, such as the Diners Club card or the American Express charge card (as distinct from American Express credit cards).

niture, home appliances, and entertainment devices. Also contributing to the growth in revolving credit was an increase in the use of so-called convenience credit—that is, credit used for transaction purposes such that monthly charges are paid in full at the end of the billing cycle.[15]

Most publicly available information about credit card holding and use is about individuals; however, since many financing decisions are made at the family level and attitudes and perspectives about credit cards may be formed based on collective experience, it is useful to consider the credit card–related activities of families. As of 2010, 68 percent of families had one or more credit cards (table 1).[16] That equated to about 152 million consumers (roughly two-thirds of individuals age 18 or older) holding about 520 million credit cards.[17] In 2010, about 39 percent of families with credit cards did not pay off their full statement balance each month, but rather paid a portion so that they carried an outstanding balance forward on their next statement.[18] Most families carrying credit card debt owed relatively small amounts. The median amount owed by families carrying debt on their credit cards was about $2,600; the average amount, however, was notably larger, at $7,100.

Credit Card Behavior and Credit Risk

The financial and other circumstances of individuals affect both their demand for credit cards and the willingness of issuers to provide them with this form of payment device and credit instrument. In general, the willingness of lenders to supply unsecured credit—the type of credit provided through bankcard borrowing—is inversely related to the credit risk posed by consumers. At very high levels of credit risk, issuers may be unwilling to extend any credit at all or will severely restrict the size of lines made available and price such credit accordingly. Consumers who have demonstrated difficulty handling credit in the past and

Table 1. Family holdings of debt, by type of debt, 2010 Survey of Consumer Finances

Item	Any debt	Secured by residential property		Installment loans	Nonmortgage lines of credit	Other[2]	Credit card[3]	
		Primary residence	Other[1]				All[4]	Share with positive balance
Percentage of families holding debt	74.9	47.0	5.4	46.3	2.1	6.4	68.0	39.4
Median value of holdings for families holding debt (thousands of 2010 dollars)	70.3	110.0	97.0	12.7	6.0	4.5	...	2.7
Share of all debt	100.0	74.1	9.8	11.2	1.0	1.1	...	2.9

1 Second or vacation homes and investment properties.

2 Consists primarily of single-payment loans.

3 Balances owed after last payment.

4 Includes households that have credit cards but that do not have any credit card debt. Among households with a credit card, 95.7 percent hold a bankcard.

. . . Not applicable.

Source: Federal Reserve Board, Survey of Consumer Finances.

15 See Kathleen W. Johnson, "Convenience or Necessity? Understanding the Recent Rise in Credit Card Debt," Finance and Economics Discussion Series 2004-47 (Washington: Board of Governors of the Federal Reserve System, September), www.federalreserve.gov/pubs/feds/2004/200447/200447abs.html.

16 See Jesse Bricker, Arthur B. Kennickell, Kevin B. Moore, and John Sabelhaus (2012), "Changes in U.S. Family Finances from 2007 to 2010: Evidence from the Survey of Consumer Finances," *Federal Reserve Bulletin*, vol. 98 (June), www.federalreserve.gov/pubs/bulletin/2012/default.htm.

17 The estimate of the number of bankcards is from HSN Consultants Inc., *Nilson Report,* in note 14.

18 See Bricker and others, "Changes in U.S. Family Finances from 2007 to 2010," in note 16.

those using large amounts of credit relative to their income and wealth are generally riskier than consumers who have good payment histories or use smaller amounts of credit.

Consumers who pose an elevated credit risk often seek credit to support greater current consumption and sometimes resort to unsecured, high-rate credit products, which may include some bankcards, to augment their secured borrowing. In seeking to augment their borrowing, such consumers signal that they pose a higher risk of default and often find it difficult to obtain additional credit. One sign that a consumer is seeking additional credit is the presence of inquiries for credit in his or her credit record data.[19] For example, individuals who have relatively low credit scores have a notably higher incidence of credit inquiries in their files than those with higher credit scores, and they typically have more inquiries indicating that they are actively searching for more credit. As of the end of 2011, 68 percent of individuals with credit scores in the lowest 20 percent of the score distribution had a record of a credit inquiry in the previous 12 months in their credit history files, and, on average, these individuals had 3.3 inquiries (data not shown in tables). By comparison, less than 30 percent of those with credit scores in the top 20 percent of the score distribution had an inquiry in the previous 12 months, and, on average, these individuals had 1.6 inquiries.

The result of these opposing supply and demand effects—the reluctance of lenders to extend unsecured credit to individuals who pose a higher credit risk and the elevated demand for such credit by such individuals—can be seen by examining data from a nationally representative sample of individuals drawn from credit record files.[20] Several relationships are revealed by an analysis of the credit record data. First, the share of individuals holding at least one bankcard was for many years quite stable, at about 80 percent, until the onset of the Great Recession; afterward, the incidence of cardholding fell to about 72 percent in 2010 (table 2).[21] (Note that the unit of observation in credit record data is the individual, not the household as in earlier analyses.) The reduction in the incidence of cardholding appears to have come from individuals in all credit score groups, although the largest percentage declines were among those with scores in the two lowest credit score quartiles (derived from data in table 2). Second, the incidence of cardholding is notably smaller in the two lowest credit score quartiles than in the two highest. At the end of 2011, about 53 percent of those in the lowest score quartile and about 65 percent of those in the second-lowest score quartile held a bankcard, compared with about 80 percent of those in the third quartile and 90 percent of those in the highest. The lower incidence of cardholding among those with lower scores means that most individuals with bankcards have fairly high credit scores: At the end of 2011, roughly 60 percent of all bankcard holders had a credit score that placed them in the top two quartiles of the score distribution.

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[19] A credit inquiry arises when a consumer has sought credit from a lender and that lender seeks information on the consumer's credit history by contacting the credit-reporting company. Inquiries that arise when a consumer is reviewing his or her own credit record are treated differently by those assessing the creditworthiness of the consumer and are not used in calculating a credit score.

[20] The credit record data used here are from the Federal Reserve Bank of New York Consumer Credit Panel/Equifax (CCP) data. For a description of these data, see Donghoon Lee and Wilbert van der Klaauw (2010), "An Introduction to the FRBNY Consumer Credit Panel," Federal Reserve Bank of New York Staff Reports 479 (New York: Federal Reserve Bank of New York, November), www.newyorkfed.org/research/staff_reports/sr479.html. The data are provided each quarter by Equifax, Inc., one of the three national consumer-reporting agencies, and are derived from a nationally representative sample of the credit records of individuals. For the CCP the same individuals are tracked over time. As individuals drop out of the sample (for example, because of death) they are replaced in a manner that continues to provide a nationally representative sample. The data are anonymous; all personally identifying information (including name, Social Security number, and residential address) is excluded from the data received by the Federal Reserve.

[21] For the analysis here, individuals are considered to have had a bankcard during a given year if they had such an account at any point during that year.

Table 2. Share of individuals holding bankcards, by credit score quartile, 2001–11
Percent

Year	Credit score quartile[1]				
	Lowest	Second	Third	Highest	All
2001	71	79	85	90	81
2002	71	78	84	89	80
2003	69	76	84	90	80
2004	67	76	84	90	79
2005	67	76	84	91	79
2006	65	76	84	91	79
2007	67	76	85	91	80
2008	65	76	86	91	79
2009	57	69	83	89	74
2010	54	65	80	90	72
2011	53	65	81	90	72

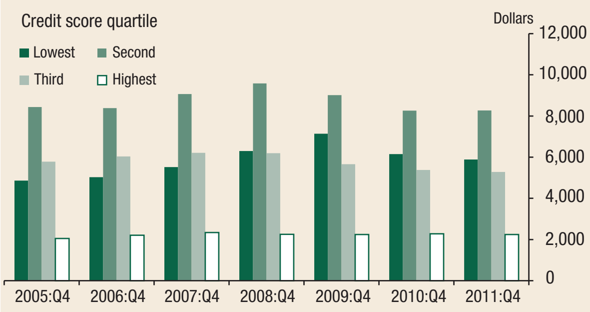
1 Credit score quartiles are based on the credit score distribution at the end of the previous year.
Source: FRBNY Consumer Credit Panel/Equifax.

In the years leading up to and into the recession, bankcard holders across the credit risk spectrum increased their revolving debt. Since then, all groups have reduced such borrowing (figure 2). This behavioral pattern reflects the long-standing observation that consumers borrow more heavily during economic expansions, when prospects are good, and pay down debts during recessions.[22] Determining the extent to which changes in outstanding debt over the current business cycle are driven by creditor actions or by consumer behavior is difficult. However, because the bankcard holders with the highest credit scores are the least likely to face lender-imposed constraints on borrowing, arguably the relatively small reduction in debt (about 6 percent from its peak at the end of 2007) by cardholders in the highest score quartile is most likely driven by consumer choice.

Payment Performance and the Great Recession

Although delinquency rates on credit cards tend to be relatively high even in good economic times, the recent recession triggered a significant upswing in delinquencies and charge-offs. The delinquency rate on bankcards reached just over 5 percent of the number of outstanding accounts in June 2009 (the official end of the Great Recession), receding to about 3 percent by the end of 2011 (figure 3).[23] In contrast, delinquency rates on closed-end consumer credit (such as automobile

Figure 2. Average total bankcard balance outstanding, by credit score quartile, 2005–11



Note: See notes to table 2.

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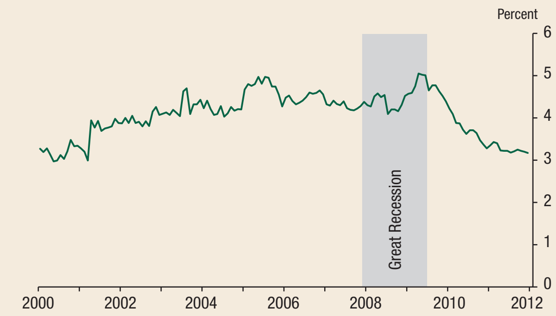
22 See George Katona (1975), *Psychological Economics* (New York: Elsevier), or, more recently, Dean Maki (2002), "The Growth of Consumer Credit and the Household Debt Service Burden," in Thomas A. Durkin and Michael E. Staten, eds., *The Impact of Public Policy on Consumer Credit* (Boston: Kluwer Academic Publishers), pp. 43–63.

23 Delinquency rates rose even more sharply when stated in dollar terms than when measured by the percentage of accounts. The elevated charge-offs associated with the Great Recession resulted in card issuers' experiencing

loans) peaked at about 4 percent during the recession before falling to about 2 to 3 percent during the recovery.

Figure 3. Credit card delinquency rate, 2000–11



Note: Loans 30 days or more past due at commercial banks. The shaded bar indicates the period of the Great Recession as defined by the National Bureau of Economic Research.
Source: American Bankers Association, *Consumer Credit Delinquency Bulletin*.

Although a delinquency rate of 5 percent of bankcard accounts might suggest that payment problems arise for only a relatively small share of bankcard holders, a snapshot view such as this understates the extent of payment problems that individuals experience. First, the measure of the share of bankcard accounts that are currently delinquent tends to downplay the proportion of active accounts that experienced difficulties because it includes in the denominator accounts that are dormant or inactive but still open and available for use at the consumer's discretion. Second, many more individuals experience some payment problem over an interval of time, such as a year or more, than at any single point in time (for example, at the end of a calendar quarter). The difference between the two measures reflects the fact that many individuals who experience a problem at some point get their payments back on track and that lenders close and charge off an account after an extended period of delinquency.

Therefore, to gain a more comprehensive view of payment performance during the years of the Great Recession and the early recovery, we determined the number of cardholders who experienced some payment problem at any point during that period. For the analysis, we tracked a sample of individuals who were consistently included in the credit record files from the end of 2007 through the end of 2011 (this population is referred to here as the *constant panel*). Over this entire four-year period, about 20 percent of individuals with a bankcard in the constant panel fell behind on payments on one or more such cards by 30 days or more *at least once* (data not shown in tables). By comparison, at the end of 2009 (on a randomly selected single date within this four-year period), only 10 percent of individuals with a bankcard in the constant panel were in arrears by 30 days or more on at least one of their cards.

One unusual aspect of cardholder behavior during the Great Recession was that consumers' hierarchy of debt payments seemed to change. In the past, when consumers experienced financial distress, they tended to fall behind on their credit card accounts before other debts. During the Great Recession, many cardholders continued to make their card payments as scheduled even as they fell behind on their mortgages. In all likelihood, delinquency rates on credit cards would have been worse had cardholders followed their historical payment hierarchy.[24]

negative returns on credit card activities in 2009, the first time issuers had had negative returns since at least 1986. See Board of Governors of the Federal Reserve System (2011), *Report to the Congress on the Profitability of Credit Card Operations of Depository Institutions* (Washington: Board of Governors, June), www.federalreserve.gov/publications/other-reports/credit-card-profitability-2011.htm.

[24] Ezra D. Becker (2011), "A Perspective on Credit Card Usage and Consumer Performance," paper presented at the Consumer Financial Protection Bureau conference on the Credit Card Act, Washington, D.C., February 22, www.consumerfinance.gov/credit-cards/credit-card-act/card-act-conference-key-findings.

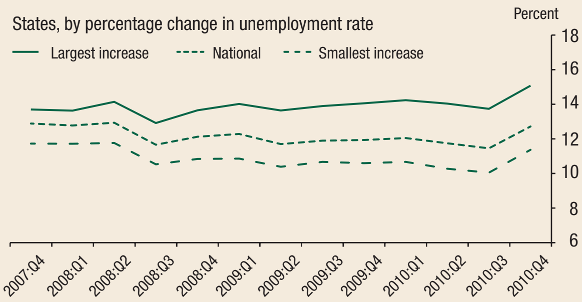
Geographic Differences in Bankcard Delinquencies

The Federal Reserve Bank of New York Consumer Credit Panel/Equifax (CCP) data can offer further insight into the payment experiences of cardholders. Although the Great Recession and the ensuing recovery have been national phenomena, cardholders in different areas of the country have experienced considerably different economic environments, which may have affected their willingness or ability to meet their debt obligations, including credit card payments. As noted, the economic environments different individuals have encountered and their personal experiences may have influenced their responses to the February 2012 consumer survey.

To gain insight into the extent to which different economic environments may have influenced bankcard holder behavior, we examined cardholder payment performance across groups of states categorized according to changes in their job market conditions. For this exercise, we compared the rates of delinquency lasting 60 days or more among cardholders residing in states that experienced particularly poor employment markets with the delinquency rates of those residing in states that had relatively better outcomes. Specifically, we compared the bankcard delinquency rates of the residents of the 10 states that experienced the largest percentage increase in their unemployment rate from the end of 2007 to the end of 2010 with the delinquency rates of the residents of the 10 states that experienced the smallest percentage increase over this period.[25] The bankcard delinquency rate for the nation as a whole was calculated as a point of reference.

The analysis reveals variation in bankcard performance across the two groups of states as the Great Recession took hold and during the initial phases of the ensuing recovery. As one might expect, bankcard holders in states that experienced the largest percentage increase in their unemployment rate had worse payment performance than bankcard holders in the states that experienced the smallest increase in unemployment. From the end of 2007 to the end of 2010, bankcard holders in the 10 states with the poorest job performance experienced about a 10 percent increase in the rate of delinquency lasting 60 days or more, compared with a 3 percent decrease for bankcard holders in the 10 states with the strongest job markets. These outcomes are derived from the data portrayed in figure 4, which show a widening of the gap in delinquency rates between cardholders in the states that experienced poor employment outcomes and those in states with better outcomes.

Figure 4. Bankcard holders 60 days or more delinquent, by states grouped by the percentage change in their unemployment rate, 2007:Q4–2010:Q4



Note: States with the largest percentage increase in unemployment consist of Alabama, Arizona, Colorado, Florida, Idaho, Maryland, Nevada, New Mexico, Utah, and Wyoming. States with the smallest percentage increase in unemployment consist of Alaska, Arkansas, Iowa, Kansas, Maine, Michigan, Minnesota, North Dakota, Ohio, and Vermont.
Source: FRBNY Consumer Credit Panel/Equifax.

[25] An alternative approach to distinguishing states that had particularly poor employment conditions from those with relatively good conditions is to consider the absolute increase in each state's unemployment rate, as opposed to the percentage increase. Analysis using this approach yielded time patterns that were quite similar, showing that states that had poor job market outcomes according to this metric also had notably worse bankcard delinquency rate outcomes than other states (data not shown in tables).

Issuer Responses

Credit card issuers have responded to the recent economic difficulties, new regulations, and other events in a variety of ways. One response has been to reprice many accounts, most notably by increasing the interest rates charged on revolving balances for some cardholders. Also in the pricing realm, issuers have altered their fee schedules for cardholders who make late payments or exceed their credit limits. Issuers have also curtailed potential losses by reducing the size of credit lines made available to cardholders and by closing some accounts.[26] Another response has been to reduce or reorient promotional activities, particularly away from those consumers judged to pose elevated credit risk. Each of these responses is explored below.

Repricing

Over the past few years issuers have repriced millions of bankcard accounts. Data representing a subset of the largest bankcard issuers indicate that many accounts experienced an increase in interest rates as a consequence of either late payments or changes in terms around the time when bankcard delinquencies increased coincident with the Great Recession and when the Credit Card Act rulemaking was in play. However, the share of accounts experiencing interest rate increases as a penalty or because of a change in terms dropped substantially once the provisions of the Credit Card Act took effect. For example, about 4 percent of bankcard accounts experienced an increase in their APR because of a penalty or change in terms each quarter in the first half of 2008, but this share dropped to about 1.5 percent each quarter by the second half of 2010.[27] Also, the incidence of late fees and the typical amount of such fees fell once the provisions of the Credit Card Act became effective.[28]

Credit Limits

The data show that in the aggregate, credit limits on credit cards grew steadily in the period before the Great Recession, reaching a peak of about $3.7 trillion in the third quarter of 2008 before falling to about $2.7 trillion at the end of 2011 (data not shown in tables).[29] As the economy has recovered, aggregate credit limits have grown modestly, but they still remain about 25 percent below their peak value. Consistent with the large drop in the aggregate dollar amount of credit lines made available, credit record data also indicate that issuers have

[26] The Senior Loan Officer Opinion Survey on Bank Lending Practices, sponsored by the Federal Reserve, indicates that most credit card issuers were reducing credit limits during the recession, but since that time the share curtailing limits has fallen sharply back to the levels seen during the years preceding the financial crisis and recession. See Board of Governors of the Federal Reserve System (various dates), "Senior Loan Officer Opinion Survey on Bank Lending Practices," Board of Governors, www.federalreserve.gov/boarddocs/SnloanSurvey. During the recession issuers also closed many dormant or little-used accounts as well as accounts that had become delinquent. This move represented an aggressive response by issuers to the difficult economic environment; inactive or little-used accounts pose considerable risk of loss while offering little potential for profit, as cardholders may draw on them as emergency lines of credit when they are in financial distress.

[27] See Consumer Financial Protection Bureau (2013), *CARD Act Report: A Review of the Impact of the CARD Act on the Consumer Credit Card Market* (Washington: CFPB, October), www.consumerfinance.gov/reports/card-act-report. For additional research into the effects of the Credit Card Act, see Sumit Agarwal, Souphala Chomsisengphet, Neale Mahoney, and Johannes Stroebel (2013), "Regulating Consumer Financial Products: Evidence from Credit Cards," NBER Working Paper Series 19484 (Cambridge, Mass.: National Bureau of Economic Research, September), www.nber.org/papers/w19484.

[28] See the slides regarding changes in penalty fees and over-the-limit fees in Jennifer Faulkner (2011), "The CARD Act—One Year Later: Impact on Pricing Fees" (Washington: Department of the Treasury, Office of the Comptroller of the Currency, Administrator of National Banks), http://files.consumerfinance.gov/f/2011/03/OCC-Presentation.pdf.

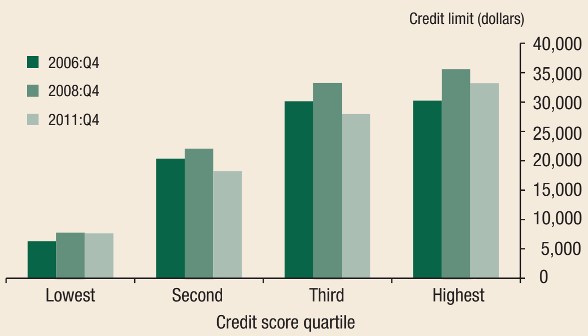
[29] Estimates are based on credit records included in the CCP data. See Federal Reserve Bank of New York (2012), "Delinquent Debt Shrinks While Real Estate Debt Continues to Fall," press release, February 27, www.newyorkfed.org/newsevents/news/research/2012/an120227.html.

reduced limits on millions of credit card accounts, particularly accounts that were inactive or little used by cardholders. These data indicate that about 60 percent of the individuals who had at least one bankcard at the end of 2007 experienced a reduction in the aggregate limit available on all of their bankcards by the end of 2011. This estimate includes those individuals who had at least one bankcard account closed, which, all else being equal, would result in a lower aggregate limit.[30]

Credit record data provide further insight into changes in individuals' aggregate credit limits in recent years. A review of these data finds that average aggregate dollar limits on bankcards vary with the credit risk posed by the cardholder and respond to changing economic circumstances. Individuals with lower credit scores have substantially smaller aggregate limits available to them than do individuals with higher scores. For example, at the end of 2011, bankcard holders with credit scores that placed them in the lowest quartile of all people with credit scores had an average aggregate credit limit across all of their bankcards of about $7,600 (figure 5). By contrast, those with scores that placed them in the highest quartile typically had an aggregate credit limit of about $33,200. This pattern holds across time; the data show the same basic relationship for each of the years reviewed. Credit record data also indicate that bankcard issuers curtailed limits (including by closing accounts) as the recession took hold, particularly for those with better credit scores. The cut in limits for those with higher scores may have been larger because such individuals tend to use their cards less and to have larger numbers of cards that they rarely use.

Credit limit curtailments did not appear to result in widespread constraints on cardholder access to credit. Despite the curtailment of credit lines, the credit record data indicate that at the end of 2011, in the aggregate, individuals were using only about one-fourth of the total dollar amount available on their lines under bank-issued credit card plans (data not shown in tables). Of course, such aggregate estimates mask considerable variability; some bankcard holders have very low rates of utilization (calculated as outstanding balances on all cards divided by the sum of the credit limits on all cards), while others are near or even over their limits as reflected in the credit record data.[31] For example, credit record data indicate that at the end of 2011 roughly one-fourth of bankcard holders had balances that were 80 percent or more of their available credit limit across all bankcards.[32] At the other extreme, about half of bankcard holders were using less than 20 percent of their available limit.

Figure 5. Credit limits, by credit score quartile and selected periods, 2006–11



Source: FRBNY Consumer Credit Panel/Equifax.

The changes in credit limits experienced by cardholders over the past

[30] The incidence of line curtailment presented here is based on an analysis that tracked the same individuals from the end of 2007 to the end of 2011. Some additional individuals may have entered the credit record files between these dates and also experienced a reduction in their total available bankcard limit. Statistics are derived from the CCP data.

[31] Utilization rates calculated from credit record data may exceed 100 percent on a single account or in the aggregate across all of an individual's accounts. An individual may be allowed to exceed his or her limit by a card issuer, or the reported limit in the credit record data may not accurately reflect the current limit if it has changed since the last time it was reported to the credit bureau.

[32] Statistics are derived from the CCP data.

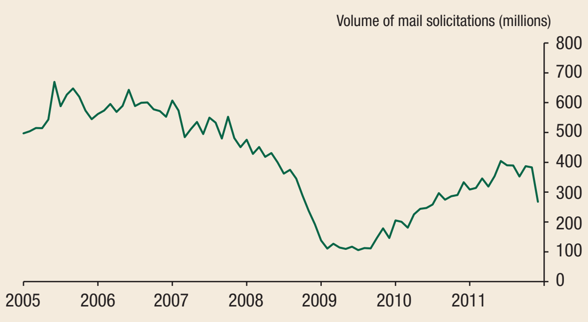
few years are likely to influence consumers' attitudes about their cards and their issuers. In general, reductions in credit limits are not likely to be well received by some consumers, although the extent to which such changes meaningfully affect their financial circumstances very much depends on their particular situation. Cardholders who experience line reductions on inactive or little-used cards but have other accounts with available capacity are less likely to be upset than cardholders who were using their accounts to the fullest extent possible. Indeed, restrictions on inactive or little-used accounts may hardly be noticed.

Solicitations

Direct mail solicitation is an important channel for card issuers to acquire new credit card accounts and retain existing accounts.[33] After reaching an all-time annual high of 6.8 billion in 2005, mail solicitations for general-purpose credit cards fell sharply as the Great Recession took hold (derived from figure 6).[34] The effects of the weak economic environment, including surging delinquencies and losses on credit card activities, led card issuers to mail only about 1.5 billion solicitations in 2009. Industry data indicate that the retrenchment in mail solicitations began to reverse in the latter portion of 2009, as prospects for economic recovery improved. Mailing volumes continued to recover throughout 2010, increasing 128 percent from December 2009 to December 2010 (data not shown in tables). Overall, nearly 3.0 billion mail solicitations were sent out in 2010, and another 4.2 billion in 2011.

Whether measured before, during, or after the most recent recession, the number of mail solicitations has been large. However, aggregate mail-volume figures reflect the receipt of multiple offers by the same individual, sometimes for the same card from the same card issuer. Another way to portray the extent of mail solicitations and their reach into the overall population is to measure the *penetration rate*—that is, the share of individuals who received at least one credit card mailing during a given period (for example, over the course of a month or a calendar quarter). A portion of the mail solicitation data available for such an analysis has been linked to the credit records of the individuals receiving the solicitations, so it is possible to assess the change over time in mailings to individuals grouped into credit score quartiles.[35] The mail solicitation data available for this analysis that include credit scores are limited to mailings received in calendar year 2007 and from the middle of 2009 onward; our analysis used data through the end of 2011. We considered both the overall penetration rate (beginning in 2007) and the distribution of mailings received by individuals grouped into credit score quartiles

Figure 6. Number of general-purpose bankcard mail solicitations, 2005–11



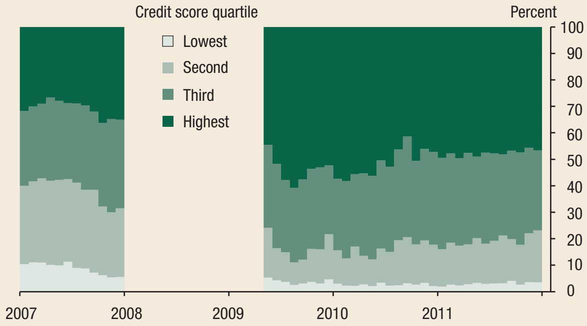
Source: Mintel Comperemedia.

[33] Other key channels for new account acquisition include the Internet and branch office interactions.

[34] The Federal Reserve receives data from Mintel Comperemedia (Mintel) on mailings received by a nationally representative sample of 8,000 consumers each month. Mintel asks these consumers to forward all incoming mail containing credit solicitations, such as offers of credit cards, home equity loans, and so on. The mail solicitations shown in figure 6 are monthly, and they include solicitations for general-purpose credit cards and exclude those for retail cards.

[35] Credit scores are available for most but not all individuals who participated in the mail survey conducted by Mintel.

Figure 7. Share of bankcard mail solicitations, by credit score quartile, 2007–11



Note: Credit score data are available only for the periods shown.
Source: Mintel Comperemedia; TransUnion LLC.

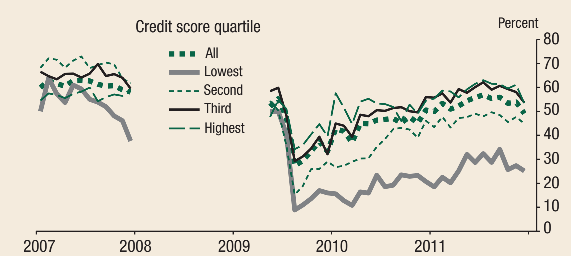
for the months in which the data are available.

The share of individuals receiving general-purpose credit card mail offers has varied over time, primarily reflecting broad economic conditions. The penetration rate reached about 63 percent of individuals around the middle of 2007 before falling to a low point of 27 percent in August 2009 as issuers responded to increasing delinquencies and losses in the credit card market (data not shown in tables). The mail solicitation data also reveal a sharp reduction once the recession took hold in offers to individuals posing a higher expected risk of default (those with lower credit scores). In June 2007, about 11 percent of credit card solicitations were sent to individuals with credit scores in the lowest quartile (figure 7). Mailings to such individuals fell sharply after that, reaching a low point in January 2011, when only 2 percent of mailings were sent to individuals with the lowest scores. More broadly, the share of all mailings sent to individuals with credit scores in the bottom half of the score distribution fell from 43 percent in June 2007 to only 16 percent in January 2011. After the beginning of 2011, card issuers' risk tolerance appears to have recovered some, as the share of mailings received by those in the bottom half of the score distribution increased, reaching 23 percent in December 2011.

Another way to demonstrate the changing risk tolerance of issuers of general-purpose credit cards is to consider the share of individuals in each credit score quartile who received a mail solicitation. Consistent with the overall volume of mailings, all score groups experienced a falloff in solicitations as the recession emerged, but those in the lower score bands experienced a much sharper decline. The data show that in June 2007 about 59 percent of individuals with scores in the bottom quartile received at least one mail solicitation; by January 2011 that share had fallen to 19 percent (figure 8). By comparison, in June 2007, about 58 percent of those with scores in the highest quartile received a solicitation; in January 2011 that figure was about 55 percent. Mailings to individuals with credit scores in the lowest two quartiles recovered some over the course of 2011 after reaching their low points.

Although the volume of credit card mail solicitations is quite large, only a very small proportion of such solicitations result in an application for or the establishment of a new credit card account. To learn more about those who actually establish a new credit card account, one must look at data beyond mailings of solicitations for new cards. Using nationally representative samples of the credit records drawn as of June 30, 2007, and at the ends of 2008 and 2010, it is possible to profile the characteristics of individuals opening new bankcard accounts at dif-

Figure 8. Share of individuals in each credit score quartile receiving bankcard mail solicitations, 2007–11



Note: See notes to figure 7.

ferent points in the business cycle.[36] These credit record data show that as the economy slid into recession there was a notable decrease in the share of individuals taking out new accounts who had credit scores in the lowest quartile, a pattern consistent with the change in mail solicitations. For example, over the six-month time frame of July to December 2008, 15 percent of the individuals opening new bankcard accounts had scores that fell in the lowest credit score quartile, a share down notably from the period preceding the recession: During the July to December 2006 period, the share of individuals opening new bankcard accounts with credit scores in the lowest quartile was 20 percent (table 3).

Table 3. Establishment of new bankcard accounts, by credit score quartile, July through December, 2006, 2008, and 2010
Percent

Account opening date	Credit score quartile				
	Lowest	Second	Third	Highest	Total
July–December 2006	20.2	33.1	28.1	18.6	100.0
July–December 2008	14.5	30.2	32.6	22.7	100.0
July–December 2010	12.7	28.1	31.4	27.8	100.0

Source: TransUnion LLC.

Findings from Consumer Surveys

Taken together, the data presented earlier reveal wide differences in credit card–related experiences and outcomes for individuals across a number of dimensions, including the economic conditions of their state of residence and one key measure of the credit risk they pose—their credit score. The following sections highlight findings from the February 2012 Survey of Consumers. The findings here indicate that credit risk was an important determinant of consumers' responses to the recession and the Credit Card Act. The survey responses identify consumers whose payment practices make them risky. Such patterns include hardly ever paying balances in full and hardly ever making more than minimum payments, behaviors that are associated with incurring relatively high credit card balances and making late payments relatively often. An examination of such cardholders' awareness of APRs, use of information, and decision processes provides insights on questions such as whether they systematically overestimate their ability to repay and whether their decisions are purposive and thoughtful.

Trends in Bankcard Holder Behavior, 2000 to 2012

Although bankcard holding declined somewhat in the wake of the recent recession and the implementation of the Credit Card Act, the majority of U.S. households continue to hold bankcards. Among households holding bankcards, the share having more than one such card (about one-fourth) has not changed much in recent years (table 4). However, the per-

[36] The credit record data used for the analysis of new account acquisition are from TransUnion, one of the three national consumer credit-reporting companies, and are derived from a nationally representative sample of the credit records of individuals. The data used in this analysis rely on the portion of the sample of credit records that tracks the same individuals over time. The data are anonymous; all personally identifying information (including name, Social Security number, and residential address) is excluded from the data received by the Federal Reserve. The data provide extensive information on each credit account in an individual's credit record, including the date the account was opened. The account opening date allows the identification of newly established accounts. Credit scores are available only as of the time the samples were drawn, so they may differ somewhat from the scores as of the time the accounts were opened. Some individuals drop out of the panel and are replaced by a representative draw from those who newly entered the credit record files during the time periods between the dates on which the samples were drawn. For details about the nature of the TransUnion credit record data used here, see Board of Governors, *Report to the Congress on Credit Scoring,* in note 4.

Table 4. Cardholding information and behavior or attitudes of holders of bankcards, selected years, 2000–12

Percent

Behavior or attitude	2000	2001	2004	2005	2012
Number of bank-type cards					
One	40	31	25	27	27
Two	29	28	32	30	31
Three	13	19	21	22	21
Four	9	11	10	8	11
Five or more	9	11	12	13	10
Total	**100**	**100**	**100**	**100**	**100**
Balance owed after latest payment (in constant 2012 dollars)					
0	35	40	45	40	50
1–1,499	32	23	21	20	16
1,500–4,999	15	17	15	16	16
5,000 or more	18	20	20	24	19
Total	**100**	**100**	**100**	**100**	**100**
Has card that provides rewards	n.a.	n.a.	n.a.	n.a.	73
Adequacy of available credit					
Too much	n.a.	n.a.	n.a.	n.a.	44
Just enough	n.a.	n.a.	n.a.	n.a.	52
Too little	n.a.	n.a.	n.a.	n.a.	3
Do not know	n.a.	n.a.	n.a.	n.a.	1
Total					**100**
Usual payment behavior					
Almost always pays in full	50	n.a.	n.a.	54	62
Sometimes pays in full	19	n.a.	n.a.	14	16
Hardly ever pays in full	31	n.a.	n.a.	32	22
Total	**100**			**100**	**100**
Payments more than minimum					
Almost always	80	n.a.	n.a.	n.a.	75
Sometimes	11	n.a.	n.a.	n.a.	14
Hardly ever	9	n.a.	n.a.	n.a.	11
Total	**100**				**100**
Memo: Continues using the card when paying the minimum	7	n.a.	n.a.	n.a.	16
Makes payments using the Internet	n.a.	n.a.	n.a.	n.a.	48
Cards' effect on managing finances					
Makes less difficult	n.a.	72	n.a.	n.a.	82
No different	n.a.	16	n.a.	n.a.	8
Makes more difficult	n.a.	10	n.a.	n.a.	8
Do not know	n.a.	3	n.a.	n.a.	2
Total		**100**			**100**
Paid a late fee in the past 12 months	41	30	n.a.	n.a.	27
Satisfaction with bank-type cards					
Very satisfied	n.a.	48	n.a.	n.a.	47
Somewhat satisfied	n.a.	42	n.a.	n.a.	37
Not satisfied or dissatisfied	n.a.	5	n.a.	n.a.	7
Somewhat dissatisfied	n.a.	5	n.a.	n.a.	7
Very dissatisfied	n.a.	1	n.a.	n.a.	1
Total		**100**			**100**
Memo: Has bank-type card	72	72	68	73	67

Note: Components may not sum to 100 because of rounding.

n.a. Not available.

Source: Thomson Reuters/University of Michigan Surveys of Consumers.

centage of households having five or more bankcards appears to have decreased slightly (3 percentage points) since 2005.

The Surveys of Consumers reveal a trend since 2000 toward greater use of bankcards as a transaction medium rather than as a source of credit. In 2000, only 35 percent of bankcard holders reported that they paid their latest statement balance in full; in the 2012 survey this figure was 50 percent. Bankcard holders' reports of their habitual or usual behavior indicate the same trend. In 2000, 50 percent of bankcard holders said that they almost always paid the balance they owed in full; in 2012 the proportion was 62 percent. Part of the increase in transactions use has occurred since the recent recession and the implementation of the new credit card regulations. The percentage of bankcard holders who paid their latest statement balance in full increased 10 percentage points between 2005 and 2012. The proliferation of rewards cards likely contributed to the increase in the transactions use of credit cards. We do not have data for earlier years, but nearly three-fourths of bankcard holders reported that they had one or more cards with reward features in 2012.[37]

The increase in transactions use may also include broader adoption of this pattern of use among bankcard holders who previously owed relatively small amounts of bankcard debt. In 2000, 32 percent of bankcard holders owed $1 to $4,999 (in constant 2012 dollars) after their most recent payment; in 2012, the share had fallen to 16 percent. Once revolving balances are repaid, cardholders may continue to use their bankcards for the sake of convenience in making transactions and in order to receive credits for rewards while paying balances in full on their monthly statements.

The share of bankcard holders with relatively large amounts of bankcard debt is little changed since 2000. In that year, 33 percent of bankcard holders had $1,500 or more of bankcard debt, and 18 percent had $5,000 or more. In 2012, 35 percent had $1,500 or more of bankcard debt, and 19 percent had $5,000 or more. Use of relatively large amounts of debt was more common shortly before the recent recession than in 2000 or 2012, however. In 2005, 40 percent of bankcard holders had $1,500 or more of bankcard debt, and 24 percent had $5,000 or more.[38] That credit card debt was greater before the recession reflects the long-standing observation that consumers borrow more heavily during economic expansions, when prospects are good, and pay down debts during recessions.

The feature of bankcard credit that allows cardholders to repay debt largely at their own discretion provides them with considerable flexibility in managing their accounts but is somewhat controversial. Critics of the feature contend that it leads some consumers to overestimate their ability to repay their credit card debt, causing them to consistently make

[37] The fact that some cardholders report that they almost always pay in full but also report that they currently owe bankcard debt is not necessarily a contradiction. At any point in time, a cardholder who normally pays the statement balance in full may have borrowed. The prearranged line of credit provided by a bankcard may be a convenient and economical source of short-term credit. See Dagobert L. Brito and Peter R. Hartley (1995), "Consumer Rationality and Credit Cards," *Journal of Political Economy*, vol. 103 (April), pp. 400–33. Another incentive for cardholders to carry a balance is a 0 percent promotional rate, which has been a common incentive used by issuers to acquire new accounts. Even the most steadfast transactions user might rationally carry a balance for the duration of a zero-interest-rate period.

[38] Just before the recession, data from the 2007 Survey of Consumer Finances indicated that 41 percent of bankcard holders had $1,500 or more of bankcard debt, and 26 percent had $5,000 or more. See Brian K. Bucks, Arthur B. Kennickell, Traci L. Mach, and Kevin B. Moore (2009), "Changes in U.S. Family Finances from 2004 to 2007: Evidence from the Survey of Consumer Finances," *Federal Reserve Bulletin*, vol. 95 (February), www.federalreserve.gov/pubs/bulletin/2009/articles/scf/default.htm.

only minimum payments and incur high finance charges for long periods of time.[39] The Credit Card Act addressed this concern by requiring new disclosures on monthly statements intended to encourage bankcard holders to make more than minimum payments. It is not evident from the survey results, however, that the new disclosure rules have altered consumer behavior. In 2012, 11 percent of bankcard holders said that they hardly ever made more than minimum payments, and 14 percent said that they sometimes made more than minimum payments.[40] This pattern is little different from the one revealed in the 2000 survey, which found that 9 percent of bankcard holders hardly ever made more than minimum payments and 11 percent sometimes made more than minimum payments. The next subsection discusses in greater detail consumers' use of information and credit card payment behavior using data from the 2012 survey.

Consumers' Decisionmaking and Their Credit Cards

Economic theory typically focuses on the outcomes of decisions but provides little insight into the decision process underlying the behavior of consumers. To better understand consumers' credit use behavior—in particular, the extent to which their behavior is purposive and thoughtful—researchers have turned to the cognitive information processing model of the decision process developed by psychologists. Psychologists model the decision process as a series of steps, involving recognition of a problem, evaluation of alternatives with internal search (that is, retrieval from memory of information on past experiences) and external search, choice, and evaluation of the outcome. For any individual, the decision process varies from one decision to another. An individual evaluating a new or unfamiliar product may gain little from internal search and move quickly to the external search stage. If an individual has sufficient information from past experience to evaluate alternatives, external search may not occur. Extended search tends to occur when the product is relatively expensive, long lived, or infrequently purchased or has both desirable and undesirable features; the consumer's need for the product is not urgent; or previous experience with the product has proven unsatisfactory.[41] This subsection examines aspects of bankcard holders' decision process, especially their access to and use of information about such cards.

Bankcards have features that can lead to limited or extended decision processes depending on how cardholders choose to use their cards. When they use their cards primarily as a convenient means of payment, the decision process may be limited or even habitual. Use is likely to be frequent, and the cost to the cardholder is generally negligible. When they use their cards as a means of financing purchases over time, the decision process is more likely to be extensive and to occur over an extended period. Bankcard credit is expensive relative to secured credit, and the debt may be outstanding for several months or even longer. The ability to borrow additional amounts and to decide on the repayment rate at the cardhold-

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39 See, for example, Lawrence M. Ausubel (1991), "The Failure of Competition in the Credit Card Market," *American Economic Review*, vol. 81 (March), pp. 50–81; Oren Bar-Gill (2004), "Seduction by Plastic," *Northwestern University Law Review*, vol. 98 (4), pp. 1373–434; and Michael S. Barr, Sendhil Mullainathan, and Eldar Shafir (2012), "Behaviorally Informed Regulation," in Michael S. Barr, ed., *No Slack: The Financial Lives of Low-Income Americans* (Washington: Brookings Institution Press), pp. 246–78.

40 Durkin ("Credit Card Disclosures," in note 3) argues that the disclosure of the number of months it will take the cardholder to repay the balance in full when making only minimum payments (one of the Credit Card Act disclosures) is informative only if bankcard holders both make the minimum payments and stop making additional charges on the bankcard. Examining actual account transaction data, he found such behavior on only a very few accounts. Thus, one might expect little effect from the disclosure. Empirical evidence from a recent experimental study suggests that Credit Card Act disclosures are not effective in increasing credit card payments. See Daniel Navarro-Martinez, Linda Court Salisbury, Katherine Lemon, Neil Stuart, William J. Matthews, and Adam J. L. Harris (2011), "Minimum Required Payment and Supplemental Information Disclosure Effects on Consumer Debt Repayment Decisions," in "Consumer Financial Decision Making," special issue, *Journal of Marketing Research*, vol. 48 (November), pp. S60–S77.

41 For further discussion, see Roger D. Blackwell, Paul W. Mineard, and James F. Engel (2006), *Consumer Behavior*, 10th ed. (Stamford, Conn.: Thomson South-Western).

er's discretion can be viewed as both good (offering flexibility) and bad (enabling cardholders to borrow excessively and repay too slowly). These considerations suggest that the decision process of cardholders who almost always pay in full may differ from that of cardholders who sometimes or hardly ever pay in full.

An individual's attitudes about alternatives for purchase and consumption reflect his or her orientations toward or against those alternatives. These orientations may affect subsequent information processing and behavior. The 2012 survey asked respondents whether they thought using credit cards was a "good thing" or a "bad thing." Their attitudes toward credit cards differed by their credit behavior. Cardholders making greater use of their credit cards for borrowing were likely to view credit cards as bad: Considerably more than half of cardholders who hardly ever paid in full and of those who sometimes or hardly ever made more than minimum payments said that credit cards were bad or bad with qualifications (table 5). In contrast, cardholders who sometimes or almost always paid in full were more divided in their views. A little more than half of each group said that credit cards were good or good with qualifications. Nearly all of the rest of these cardholders said that credit cards were bad or bad with qualifications. The more critical view of credit cards among those who hardly ever paid in full and those who sometimes or hardly ever paid more than the minimum suggests that these heavy credit users may be predisposed to undertake more deliberative decision processes than transactions users, although the qualified positive responses of transactions users also suggest that they, too, may be deliberative.

Presumably, use of information on account terms is part of cardholders' deliberative process. Because awareness of price is a prerequisite for informed use of credit, price disclosure is a key component of federal disclosure rules for consumer credit and a focal point for researchers studying the effect of awareness of price on credit decisions.[42] Since the implementation of TILA in 1968, the price of credit has been measured by the APR, and researchers have used survey reports of APRs to investigate consumer awareness of credit costs. Because the APRs reported by respondents in interview surveys cannot be checked against the rates they actually pay, researchers have relied on the concept of "awareness zones" to measure knowledge of APRs. If a respondent reports an APR within a range

Table 5. Attitudes toward credit cards, by payment behavior, 2012
Percent aware

Attitude toward credit cards	Usual payment behavior			Payments more than minimum	
	Almost always pays in full	Sometimes pays in full	Hardly ever pays in full	Almost always pays more than minimum	Sometimes or hardly ever pays more than minimum[1]
Good or good with qualifications	52	54	28	41	34
Both good and bad	3	1	1	1	†
Bad or bad with qualifications	45	45	71	58	66
Total	**100**	**100**	**100**	**100**	**100**

1 Weighted sample size is less than 50.
† Less than 0.5.
Source: Thomson Reuters/University of Michigan Surveys of Consumers.

42 The fact that consumers can recall information does not necessarily mean that they used the information in making a decision, and that they have forgotten information does not necessarily mean that they were not aware of it at the time a decision was made. However, information that is useful is more likely to be retained in memory than information that is not useful. For discussion, see George S. Day (1976), "Assessing the Effects of Information Disclosure Requirements," *Journal of Marketing*, vol. 40 (April), pp. 42–52.

that is deemed reasonable based on the distribution of actual market rates, the respondent is classified as "aware." If the respondent reports a rate that is outside the range or answers "do not know," the respondent is classified as "unaware."

This article uses the same awareness zones as those used to assess responses to the January 2000 Survey of Consumers in a *Federal Reserve Bulletin* article published the same year.[43] In that article, two definitions of awareness were considered. The first was a narrow definition, in which respondents reporting interest rates greater than 7.9 percent were classified as aware, and respondents reporting rates of 7.9 percent or lower or saying that they did not know the rate were classified as unaware. The second alternative was a broad definition recognizing that low teaser rates were common in the marketplace at that time, so reports of rates below 7.9 percent may have been accurate. Under the broad definition, respondents reporting any interest rate were classified as aware, and respondents reporting that they did not know their rate were classified as unaware.

Regardless of the definition considered, cardholders' awareness of APRs was very high in the 2012 survey. Among cardholders who sometimes paid in full, 92 percent were aware under the narrow definition, and 96 percent were aware under the broad definition (table 6). Eighty percent of cardholders who hardly ever paid in full were aware under the narrow definition. But if one allows for the possibility that these cardholders may have been paying low teaser rates—that is, if one adopts the broad definition—then up to 95 percent of cardholders who hardly ever paid in full may have been aware. The payment-behavior cohort with the lowest levels of awareness was the group of cardholders who almost always paid in full. Eighty-one percent of these cardholders were aware under the narrow definition, and 88 percent were aware under the broad definition. Cardholders who almost always paid in full were least likely to pay finance charges and therefore least likely to need to know their APR. Since APR information is not pertinent to their behavior, they may not retain the information in memory. In contrast, nearly all of the cardholders who actually paid finance charges were aware of their APR.

To further examine the role of information in the decision process, the survey asked cardholders how often they reviewed the APR information in their monthly statements. Cardholders who sometimes paid card balances in full were the payment behavior group who most frequently reviewed APR information; 53 percent of these respondents reported reviewing APR information every month (table 7). Cardholders who hardly ever paid in full were less likely than cardholders who sometimes paid in full to review APR information every month (44 percent), but the two groups were about equally likely to review APR information at least quarterly (77 percent and 80 percent, calculated as the sum of the first three rows in

Table 6. Awareness of annual percentage rates, by awareness definition and payment behavior, 2012
Percent aware

Awareness definition	Usual payment behavior			Payments more than minimum	
	Almost always pays in full	Sometimes pays in full	Hardly ever pays in full	Almost always pays more than minimum	Sometimes or hardly ever pays more than minimum[1]
Narrow	81	92	80	84	90
Broad	88	96	95	95	99

Note: For explanation of awareness definition, see text.
[1] Weighted sample size is less than 50.
Source: Thomson Reuters/University of Michigan Surveys of Consumers.

[43] See Durkin, "Credit Cards," in note 3.

Table 7. Frequency with which monthly statement information on annual percentage rate is reviewed, by payment behavior, 2012
Percent

Frequency of review	Usual payment behavior			Payments more than minimum	
	Almost always pays in full	Sometimes pays in full	Hardly ever pays in full	Almost always pays more than minimum	Sometimes or hardly ever pays more than minimum[1]
Every month	34	53	44	49	45
Every other month	5	14	10	11	14
4–5 times a year	10	13	23	19	20
Less than 4 times a year	51	20	23	22	21
Do not know	†	†	†	†	†
Total	**100**	**100**	**100**	**100**	**100**

Note: Components may not sum to 100 because of rounding.
[1] Weighted sample size is less than 50.
† Less than 0.5.
Source: Thomson Reuters/University of Michigan Surveys of Consumers.

columns 3 and 2, respectively). In contrast, only 34 percent of cardholders who almost always paid in full reported reviewing APR information every month, and just 49 percent of them reviewed APR information at least quarterly. These patterns indicate that cardholders who make decisions on whether or not to borrow and how much to borrow are the ones most likely to review price information frequently.[44] This finding is consistent with the hypothesis that borrowers are more likely to be deliberative than transactions users.

Cardholders were then asked whether the disclosed APR or the disclosed dollar finance charge on their monthly billing statement affected their decision to use credit in any way. Cardholders who sometimes or hardly ever paid balances in full were more likely than cardholders who almost always paid in full to report that the APR or the finance charge affected their decisions (table 8). Again, as cardholders who almost always pay in full hardly ever incur finance charges, it makes sense that information on the APR and the finance charge would not be especially relevant for them. For cardholders who sometimes or hardly ever paid in full, the finance charge was more likely than the APR to affect their decisions. About half of cardholders who sometimes or hardly ever paid in full said that the APR or the finance charge (or both) affected their decisions.

Table 8. Effect of annual percentage rate and finance charge information on consumer decisions, 2012
Percent reporting that information affects behavior

Item	Usual payment behavior			Payments more than minimum	
	Almost always pays in full	Sometimes pays in full	Hardly ever pays in full	Almost always pays more than minimum	Sometimes or hardly ever pays more than minimum[1]
Annual percentage rate (APR)	17	30	32	31	32
Finance charge	18	48	40	41	51
APR or finance charge	24	52	50	51	51

[1] Weighted sample size is less than 50.
Source: Thomson Reuters/University of Michigan Surveys of Consumers.

[44] Cardholders were also asked how often they reviewed descriptive material in their monthly statements. Cardholders reported reviewing descriptive material less frequently than APR information (about 1 in 10 reviewed descriptive material each month), and the frequency distributions of the three payment-behavior groups were similar (data not shown in tables).

Table 9. Effect of annual percentage rate and finance charge information on decisions to use credit, 2012
Percent of mentions

Effect on decision	APR information		Finance charge information	
	Almost always pays in full[1]	Sometimes or hardly ever pays in full	Almost always pays in full[1]	Sometimes or hardly ever pays in full
Paid off faster	33	11	22	19
Limited card use	23	20	17	31
Influenced decision on whether to use cash or credit	22	28	20	19
Decided which card to use	14	12	12	8
Stopped using credit cards	4	14	5	7
Changed spending habits	†	8	14	9
Other	5	8	10	7
Total	**100**	**100**	**100**	**100**

[1] Weighted sample size is less than 50.
† Less than 0.5.
APR Annual percentage rate.
Source: Thomson Reuters/University of Michigan Surveys of Consumers.

When asked in what way their decision to use credit was affected, most cardholders indicated that the APR or finance charge information influenced their decisions on whether or not to use credit or how much credit to use (table 9). However, only a relatively small share of cardholders changed their spending habits or stopped using credit cards altogether because of this information, and relatively few cardholders used the information to choose which card to use. Although the percentages vary, these conclusions hold for responses about both APR and finance charge information and do not differ substantively by cardholders' payment behavior.

Bankcard holders who used credit cards for the purpose of borrowing were somewhat more likely than transactions users to believe that obtaining information on credit terms is easy, perhaps because borrowers were more likely to use such information. Half of bankcard holders who sometimes or hardly ever paid in full reported that obtaining information on credit terms was at least somewhat easy, compared with 44 percent of cardholders who almost always paid in full (table 10). While a significant minority of cardholders found

Table 10. Ease of obtaining useful information on credit card terms, by payment behavior, 2012
Percent

Ease of obtaining useful information	Usual payment behavior			Payments more than minimum	
	Almost always pays in full	Sometimes pays in full	Hardly ever pays in full	Almost always pays more than minimum	Sometimes or hardly ever pays more than minimum[1]
Very easy	8	8	6	9	†
Somewhat easy	36	42	44	43	43
Somewhat difficult	43	43	37	38	44
Very difficult	13	7	11	10	8
Do not know	1	†	3	1	5
Total	**100**	**100**	**100**	**100**	**100**

Note: Components may not sum to 100 because of rounding.
[1] Weighted sample size is less than 50.
† Less than 0.5.
Source: Thomson Reuters/University of Michigan Surveys of Consumers.

obtaining information on credit terms somewhat difficult, only a relatively small share of cardholders overall found it very difficult.

Bankcard holders' responses to a question asking whether credit cards make managing finances less difficult or more difficult provide evidence of cardholders' post-purchase evaluations of credit cards. Bankcard holders did generally believe that credit cards made managing their finances less difficult, and this belief was more widely held in 2012 than earlier (see table 4). Eighty-two percent of bankcard holders in 2012 said that bankcards made managing finances less difficult, compared with 72 percent in the 2001 survey. Only small percentages of respondents to both the 2012 and 2001 surveys believed that credit cards made managing their finances more difficult (8 percent and 10 percent, respectively).[45] A belief that cards make managing one's finances less difficult would seem inconsistent with the view that cards induce consumers to overestimate their ability to repay.

Hardly ever paying balances in full, and sometimes or hardly ever making more than minimum payments, is behavior that might occur if cardholders overestimate their ability to repay credit card debt. If so, and if paying high finance charges over long periods of time burdens them, then these cardholders might be expected to believe that credit cards make managing their finances more difficult. Responses to the 2012 survey do not provide much support for this hypothesis, however (table 11). Eighty-seven percent of cardholders who only sometimes paid in full and 85 percent of cardholders who hardly ever paid in full said that credit cards made managing their finances less difficult (compared with 80 percent of those who almost always paid in full). Among the cardholders who sometimes or hardly ever paid more than the minimum, 90 percent believed that credit cards made managing their finances less difficult. The percentage of cardholders who said they believed that credit cards made managing their finances more difficult increases as cardholders' tendency to pay in full becomes less frequent, but even among cardholders who hardly ever paid in full, only a relatively small share (14 percent) believed that credit cards made managing their finances more difficult.

Cardholders reported a high degree of satisfaction with their bankcards. Satisfaction was greatest for cardholders who almost always paid in full; among these respondents,

Table 11. Effect of credit cards on managing finances, by payment behavior, 2012
Percent

Cards' effect on managing finances	Usual payment behavior			Payments more than minimum	
	Almost always pays in full	Sometimes pays in full	Hardly ever pays in full	Almost always pays more than minimum	Sometimes or hardly ever pays more than minimum[1]
Less difficult	80	87	85	85	90
No different	13	†	†	†	†
More difficult	5	11	14	13	10
Do not know	2	2	1	2	†
Total	**100**	**100**	**100**	**100**	**100**

Note: Components may not sum to 100 because of rounding.
1 Weighted sample size is less than 50.
† Less than 0.5.
Source: Thomson Reuters/University of Michigan Surveys of Consumers.

45 The ability to manage credit card accounts using the Internet may be one factor contributing to the rise in the percentage of bankcard holders who believed that bankcards made managing their finances easier. In 2012, 48 percent of bankcard holders reported having made a credit card payment using the Internet. Financial services have become more widely available on the Internet since 2000.

58 percent were very satisfied and 92 percent were at least somewhat satisfied (table 12). Satisfaction was lowest for cardholders who hardly ever paid in full or made minimum payments. Even so, many more than half (68 percent) of these cardholders were at least somewhat satisfied, and only a small share were very dissatisfied. Considering that by far the majority of cardholders said that cards made managing their finances easier, these high levels of satisfaction are not surprising. That the satisfaction levels of more constrained cardholders—that is, cardholders who hardly ever paid in full or made minimum payments—were somewhat lower than those of other cardholders may reflect that some of these constrained cardholders may have experienced difficulty in servicing their debts, relatively high interest costs, and adverse actions taken by credit card companies.[46]

New Accounts

Cardholders may have used bankcards for many years, and their behavior may have become habitual, especially if they use bankcards as a convenient means of payment rather than as a source of credit. Examining behavior on recently opened accounts may provide insights on behavior before usage patterns have become established and possibly habitual.

Sixteen percent of cardholders responding to the 2012 survey had opened a new bankcard account in the previous 12 months. Reasons for opening a new account differed significantly by cardholders' payment behavior. Reasons related to availability and rates were reported most frequently by bankcard holders who only sometimes or hardly ever paid in full. Twenty-six percent of cardholders opening a new account who sometimes or hardly ever paid in full reported opening the account to rebuild or increase their available credit, and 19 percent opened the account to obtain a lower or zero interest rate (table 13). These responses are consistent with their payment behavior. The desire to receive rewards was mentioned most frequently by cardholders who almost always paid in full. Beyond the convenience in making payments, transactions users might reasonably be expected to seek cards with more generous rewards. Cardholders who almost always paid in full did not mention opening new accounts to rebuild or increase credit availability. Only 11 percent of

Table 12. Satisfaction with credit cards, by payment behavior, 2012
Percent

Degree of satisfaction	Usual payment behavior			Payments more than minimum	
	Almost always pays in full	Sometimes pays in full	Hardly ever pays in full	Almost always pays more than minimum	Sometimes or hardly ever pays more than minimum[1]
Very satisfied	58	38	27	36	19
Somewhat satisfied	34	44	41	40	49
Neither satisfied nor dissatisfied	4	8	15	11	16
Somewhat dissatisfied	4	11	13	12	12
Very dissatisfied	1	†	4	1	5
Total	**100**	**100**	**100**	**100**	**100**

Note: Components may not sum to 100 because of rounding.
[1] Weighted sample size is less than 50.
† Less than 0.5.
Source: Thomson Reuters/University of Michigan Surveys of Consumers.

[46] Cardholders who hardly ever paid in full were 2.5 times more likely to have paid a late fee and 2.4 times more likely to have experienced an adverse event in the past 12 months than cardholders who almost always paid in full (data not shown in tables). Cardholders who sometimes paid in full were 1.6 times more likely to have paid a late fee and 1.4 times more likely to have experienced an adverse event than cardholders who almost always paid in full. Adverse events include credit limit reductions, account closures, interest rate increases, and denials of limit increase requests or new account applications.

Table 13. Reason for opening a new account in the previous 12 months, by payment behavior, 2012
Percent

Reason	Distribution
Cardholders who sometimes or hardly ever pay in full[1]	
Make a specific purchase	35
Rebuild or increase available credit	26
Obtain a lower/zero interest rate	19
Receive rewards	8
Receive purchase discount	6
Other	6
Total	**100**
Cardholders who almost always pay in full	
Receive rewards	33
Make specific purchase	14
Receive purchase discount	13
Obtain lower/zero interest rate	11
Bank offered account	10
Life-cycle consideration (for example, college, marriage, retirement)	7
Other	11
Total	**100**

Note: Components may not sum to 100 because of rounding.
[1] Weighted sample size is less than 50.
Source: Thomson Reuters/University of Michigan Surveys of Consumers.

these cardholders opened an account to obtain a lower or zero interest rate, which transactions users might rationally do on occasion.

Both groups reported opening new accounts for specific purchases, and making a specific purchase was the reason most frequently reported by bankcard holders who sometimes or hardly ever paid in full (35 percent). Bankcard holders who almost always paid in full mentioned opening a new account to make a specific purchase far less frequently (14 percent). The relatively heavy reliance on new accounts by cardholders who sometimes or hardly ever paid in full further suggests the importance of credit availability for this group.

The reason for opening a new account most frequently mentioned by bankcard holders who almost always paid in full was to receive rewards (33 percent). Cardholders who sometimes or hardly ever paid in full also opened new accounts to receive rewards, but much less frequently (8 percent). Thirteen percent of cardholders who almost always paid in full and 6 percent of cardholders who sometimes or hardly ever paid in full opened new accounts to receive purchase discounts.

For both cardholders who almost always paid in full and cardholders who sometimes or hardly ever paid in full, the source of initial information about the new account was most frequently a salesperson in a store—28 percent and 36 percent, respectively (table 14). This result reflects the prevalence of accounts opened to make specific purchases or obtain purchase discounts or also, for the latter group, to receive low or zero interest rates. Mail solicitations were important sources of information for cardholders who sometimes or hardly ever paid in full; 33 percent of these respondents initially learned about an account from a mail solicitation. This percentage is three times greater than the share of cardholders who almost always paid in full who received initial information from mail solicitations. That those who revolve balances are more likely than transactions users to respond to mail solicitations is consistent with the observation that respondents to mail solicitations are riskier than nonrespondents, which supports the hypothesis of adverse selection in the

Table 14. Source of initial information about new account, by payment behavior, 2012
Percent

Source	Almost always pays in full	Sometimes or hardly ever pays in full
Mail solicitation	11	33
Internet	22	13
Salesman in store	28	36
Telephone solicitation	9	5
Bank employee	23	14
Other	7	†
Total	**100**	**100**

Note: Weighted sample size is less than 50. Components may not sum to 100 because of rounding.
† Less than 0.5.
Source: Thomson Reuters/University of Michigan Surveys of Consumers.

credit card market.[47] Cardholders who almost always paid in full were more likely to obtain initial information from a bank employee or the Internet.

Cardholders who had opened a new account were asked a series of questions about the information they received when they opened the account. The first question asked how carefully they read the information. A little more than two-thirds of those who almost always paid in full and nearly three-fourths of those who sometimes or hardly ever paid in full read the account disclosure information at least somewhat carefully (table 15).[48] Regardless of payment behavior, by far the majority of new cardholders filed the information away for possible future use, including some cardholders who did not read the infor-

Table 15. Use of information received at account opening, by payment behavior, 2012
Percent

Item	Almost always pays in full	Sometimes or hardly ever pays in full
How carefully account information was read		
Very carefully	24	28
Somewhat carefully	44	46
Not very carefully	18	13
Not carefully at all	15	14
Total	**100**	**100**
Filed information in case needed later	79	81
Usefulness of information		
Very useful	18	33
Somewhat useful	16	52
Not very useful	48	15
Not at all useful	17	†
Total	**100**	**100**

Note: Weighted sample size is less than 50. Components may not sum to 100 because of rounding.
† Less than 0.5.
Source: Thomson Reuters/University of Michigan Surveys of Consumers.

47 See Lawrence Ausubel (1999), "Adverse Selection in the Credit Card Market," working paper (College Park: University of Maryland, June), www.ausubel.com/creditcard-papers.htm.

48 The somewhat lower levels of satisfaction of cardholders who sometimes or hardly ever paid in full, discussed in the previous subsection, may have contributed to the higher percentage of these cardholders who carefully read account disclosure information. As mentioned, research on consumer behavior indicates that dissatisfaction tends to lead to more-extended decision processes.

mation very carefully. A larger share of cardholders who sometimes or hardly ever paid in full than of cardholders who almost always paid in full found the information at least somewhat useful (85 percent versus 34 percent).

It is not surprising that cardholders who use the credit feature of credit cards are more likely than others to find account disclosure information useful, because much of this information involves credit costs and terms and is mandated by TILA. Cardholders who always pay in full have little need for information on credit costs and terms. Responses to a follow-up question asking what makes the information useful or not useful support this view. About one-fourth of cardholders who sometimes or hardly ever paid in full found the information about interest rates useful, and one-third reported that the information helped them understand the account or was useful as a reference (data not shown in tables). These responses were far less frequent for cardholders who almost always paid in full. About one-fourth of cardholders who almost always paid in full said that the information was irrelevant precisely because they paid in full. Also, cardholders who almost always paid in full frequently said that they already knew the information or that they never needed to use the information. Even though these consumers reported that they did not find the account opening information useful, many read the information at least somewhat carefully, and most kept the information for later use.

Adverse Experiences with Credit Card Companies

The February 2012 Survey of Consumers questioned bankcard holders about adverse experiences involving their credit cards during the 12-month period prior to the interview. Adverse experiences were defined to include actions such as denials or limitations of credit and increases in interest rates or fees. Some of these events may have been prompted by the high delinquency rates and credit losses experienced by card issuers during the recession or by regulatory changes, including those related to allowable risk-management practices and various forms of consumer protection. This section investigates the prevalence of adverse actions and examines how they may have affected consumer attitudes toward credit.

Overall, 26 percent of cardholders reported having an adverse experience in the past year (data not shown in tables). Previous Surveys of Consumers did not ask about adverse experiences, so a benchmark is not readily available. The credit record data described earlier confirm that a large share of cardholders experienced an adverse event over the past several years. Many of the limitations of credit imposed by card issuers were in response to consumer-initiated requests. For example, 17 percent of cardholders applied for a new bankcard in the past year (table 16). Of those applying, 9 percent were turned down. Six percent of cardholders requested an increase in a credit line; of those, 36 percent received less than the amount requested. However, by far the majority of the cardholders who received less credit than requested also reported that they had made a late payment on the account in the previous 12 months.

Some limitations were initiated by the credit card companies in conjunction with managing their existing account relationships. Five percent of cardholders reported that a credit card company had reduced the credit limit on an existing account in the past 12 months. In part, credit limit reductions were prompted by account inactivity (accounting for 23 percent of the line reductions reported) or late payments (21 percent).[49] In addition, 5 percent of cardholders reported that a credit card company had closed one of their accounts in the past year.

[49] Analysis of credit record data indicates that of the bankcard holders who fell behind on their payments by 30 days or more at least once from the end of 2007 to the end of 2010, over two-thirds subsequently experienced a reduction in their aggregate credit limit across all of their cards.

Table 16. Adverse experiences with credit card companies in past 12 months, 2012
Percent of bankcard holders unless otherwise noted

Experience	Percent
Applied for new bankcard	17
Of those applying for a new card	
Cardholders who were denied	9
Requested an increase in credit limit	6
Of those who requested an increase	
Cardholders who received less than requested[1]	36
Of those receiving less than requested	
Cardholders who had a late payment on the account in the past 12 months[1]	80
Credit card company reduced credit limit	5
Of those having credit limit reduction	
Cardholders who did not use the account in the past 12 months	23
Cardholders who had a late payment on the account in the past 12 months	21
Had account that was closed by the credit card company	5
Of those having accounts closed	
Cardholders who did not use closed account in the past 12 months[1]	51
Cardholders who had a late payment on the closed account in the past 12 months[1]	38
Credit card company increased interest rate/margin	14
Of those having a rate/margin increase	
Cardholders who did not use account in the past 12 months	21
Cardholders who had a late payment on the account in the past 12 months	34
Credit card company increased or added annual fee for account	7

[1] Weighted sample size is less than 50.
Source: Thomson Reuters/University of Michigan Surveys of Consumers.

Just over half of these cardholders said that the closed account was inactive during that period, and 38 percent said that they had made late payments on the closed account.

Such turndowns and limitations do not necessarily impose a binding constraint on the consumer. For example, a cardholder who has been turned down can apply for a different credit card and perhaps receive approval (although the terms may be less favorable than those for the denied account), or a cardholder may choose to borrow a greater proportion of his or her available credit line. Closures and reductions in credit limits affecting inactive accounts in particular would seem not to be binding.

Some cardholders had experienced increases in interest rates or annual fees in the previous 12 months. Increases in interest rates (or margins, for variable-rate accounts) were reported by 14 percent of cardholders. A considerable share of the rate increases may be attributed to the credit card companies' reassessment of the customers' risk: Just over one-third of cardholders said that they had made late payments in the past year on the accounts that received interest rate increases. Changes in annual fees were less frequent than interest rate increases; 7 percent of cardholders reported an increased or additional annual fee for a bankcard account.

Not surprisingly, adverse experiences significantly influenced cardholders' opinions. Cardholders who had adverse experiences were more likely to have a negative opinion of credit cards than cardholders who did not have adverse experiences: 57 percent of the former and 49 percent of the latter said that credit cards were "bad" or "bad with qualifications" (table 17). Cardholders who had adverse experiences were over three and a half times more

Table 17. Opinions about credit cards and credit card companies, by adverse experiences in the past 12 months, 2012
Percent

Opinion	Had any adverse experience	Did not have an adverse experience
Opinion about credit cards		
Good or good with qualifications	40	50
Both good and bad	2	2
Bad with qualifications or bad	57	49
Total	**100**	**100**
Cardholders' satisfaction with own accounts		
Very satisfied	35	52
Somewhat satisfied	41	36
Not particularly satisfied or dissatisfied	8	7
Somewhat dissatisfied	15	4
Very dissatisfied	3	1
Total	**100**	**100**
Cardholders' agreement that their own credit card companies treat them fairly		
Strongly agree	32	51
Agree somewhat	57	43
Disagree somewhat	5	5
Strongly disagree	5	2
Total	**100**	**100**
Cardholders' agreement that they can easily get a card from another company if they are not treated well		
Strongly agree	54	57
Agree somewhat	33	35
Disagree somewhat	5	6
Strongly disagree	9	2
Total	**100**	**100**

Note: Components may not sum to 100 because of rounding.
Source: Thomson Reuters/University of Michigan Surveys of Consumers.

likely to be somewhat or very dissatisfied with their own accounts than cardholders who did not have adverse experiences (18 percent and 5 percent, respectively). However, it is notable that by far the majority of cardholders who had adverse experiences were satisfied with their own accounts and believed that their credit card companies treated them fairly (although they held these opinions less strongly than cardholders who did not have adverse experiences). Also notable is that cardholders who had adverse experiences believed that they had options available to them: Eighty-seven percent of cardholders who had adverse experiences believed that they could easily get a bankcard from another company if they were not treated well. This share is only slightly smaller than the 92 percent of cardholders who did not have adverse experiences who believed that they could easily get a card from another company.

In sum, the survey responses pick up the incidence of credit limitations and interest rate increases that credit card companies implemented in response to changes in macro-economic conditions, cardholder behavior, and regulatory initiatives. Overall, one-fourth of cardholders had experienced adverse events over the previous year. The lack of a bench-mark precludes us from saying whether this incidence of adverse events differs from the rate that obtained before the Great Recession and the implementation of the Credit Card Act. And it is not necessarily the case that every cardholder who had an adverse experience was forced to use less credit or paid higher interest or fees, although some clearly did. While having adverse experiences was associated with cardholders' feeling less satisfaction with their own accounts and having less positive opinions of credit cards in general, most cardholders who had adverse experiences were satisfied with their own accounts. And by far the majority of cardholders with adverse experiences, like other cardholders, believed that their credit card companies treated them fairly and that they could easily get a card from another company if they were not treated well.

Changes in Attitudes in the Aftermath of the Recession and the Credit Card Act

As mentioned, individuals' attitudes reflect their orientations toward or against alternatives for purchase and consumption, which may affect their behavior. Changes in attitudes may thus change behavior. The question on the Surveys of Consumers asking respondents whether using credit cards is a good or a bad thing has been asked several times over the years, beginning with the 1970 survey. As consumers have gained experience with credit cards, their opinions about credit card use have polarized. In 1970 about 65 percent of cardholders and 71 percent of consumers overall expressed an unqualified view that card use was either a "good thing" or a "bad thing" (table 18). In 2012 more than 95 percent of both cardholders and consumers overall expressed unqualified views about credit cards. Notably, the share of cardholders who viewed card use as a bad thing rose substantially between 2000 and 2012, while the share of cardholders viewing card use as a good thing was little changed.

Also notable is that the percentage of bankcard holders who said that credit card use was bad increased among those who hardly ever paid in full and those who hardly ever paid more than the minimum monthly payment. These behaviors can be relatively risky, making these consumers vulnerable to financial difficulties. Between 2000 and 2012, the percentage of cardholders who hardly ever paid balances in full and said that credit card use is bad increased 12 percentage points, from 59 percent to 71 percent, and the share of cardholders who hardly ever paid more than the minimum payment due rose 10 percentage points, from 63 percent to 73 percent (data not shown in tables). In contrast, among cardholders who almost always paid in full, the percentage viewing credit card use as bad did not change materially between 2000 and 2012. The change in attitudes of the former groups may reflect their experiences with delinquencies, which rose dramatically in the recent recession, and may have inhibited subsequent growth in revolving debt.

Table 18. Opinions about the use of credit cards, 1970, 1977, 2000, and 2012
Percent

Opinion	1970		1977		2000		2012	
	All families	Have bank-type cards	All families	Have bank-type cards	All families	Have bank-type cards	All families	Have bank-type cards
Good	28	45	39	54	33	42	40	46
Good, with qualifications	13	17	19	20	10	9	2	2
Both good and bad	12	14	11	8	6	5	2	2
Bad, with qualifications	4	4	4	3	1	1	†	†
Bad	43	20	27	14	51	42	56	51
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Note: Components may not sum to 100 because of rounding.

† Less than 0.5.

Source: For 1970 and 1977, Federal Reserve Board, Survey of Consumer Finances; for 2000 and 2012, Thomson Reuters/University of Michigan Surveys of Consumers.

Survey responses can reflect not only an individual's own experiences but also his or her perceptions of the experiences of other individuals. Cardholders' views about the ability of other consumers to manage credit cards wisely may account for some of the negative opinions of credit card use. These views are informed, at least in part, by media coverage of consumer credit, which tends to be stimulated by recessions and is largely negative.[50]

Over 60 percent of cardholders believed strongly that credit card companies made too much credit available to most people, and 75 percent believed strongly that solicitations offering low rates for a short time confuse many people (table 19). These beliefs were held a little less strongly in 2012 than they were in 2000: The percentages of cardholders agreeing

Table 19. Attitudes of holders of bank-type credit cards toward credit cards and card issuers, 2012
Percent

Attitude	Agree strongly	Agree somewhat	Disagree somewhat	Disagree strongly	Total
Specific practices of card issuers					
The interest rates charged on credit cards are reasonable.	6	13	25	55	100
Credit card billing statements are accurate.	58	34	6	2	100
Card issuers and consumers in general					
Credit card companies make too much credit available to most people.	61	28	7	3	100
Sending solicitations that offer low rates but for only a short time probably misleads a lot of people.	75	20	4	2	100
Credit card companies make it hard for people to get out of debt.	61	27	7	5	100
Credit card companies should not be allowed to issue credit cards to college students.	33	21	31	16	100
Overspending is the fault of consumers, not the credit card companies.	57	30	9	4	100
Card issuers and me					
I am generally satisfied in my dealings with my credit card companies.	51	44	4	1	100
My credit card companies treat me fairly.	46	47	5	3	100
It is easy to get a credit card from another company if I am not treated well.	56	34	6	4	100
General satisfaction or dissatisfaction					
Credit card companies provide a useful service to consumers.	47	46	5	2	100
Most people are satisfied in their dealings with credit card companies.	9	41	28	21	100
Consumers would be better off if there were no credit cards.	14	25	35	26	100
Information availability					
Information on the statement on how long it would take to pay off the balance if I make only the minimum payment [would be/is] useful to me.[1]	51	27	10	12	100
Mailings and other ads that offer a low rate at first followed by a higher rate are confusing to me.	35	19	17	29	100

Note: Components may not sum to 100 because of rounding.

1 The question read "would be" in 2000 and "is" in 2012. This change reflects a revision to Truth in Lending that requires disclosure of months to repay if only the minimum payment is made.

Source: Thomson Reuters/University of Michigan Surveys of Consumers.

50 Thomas A. Durkin and Zachariah Jonasson (2002), "An Empirical Evaluation of the Content and Cycle of Financial Reporting: The Case of Consumer Credit," Working Paper 64 (Washington: Credit Research Center, Georgetown University, April).

somewhat with these statements increased 8 percentage points and 6 percentage points, respectively, between 2000 and 2012 (table 20). However, the percentage of cardholders strongly believing that credit card companies made getting out of debt difficult increased about 6 percentage points, to 61 percent, over this time period.

Despite their pessimistic views about other consumers, cardholders were fairly confident in their own dealings with credit card companies. Almost all cardholders believed that their credit card companies treated them fairly and were satisfied in their dealings with credit card companies, although only about half of the respondents held these beliefs strongly. The vast majority of all cardholders also felt confident that they could obtain credit from another credit card company if they became dissatisfied with any of their present card providers. The survey responses suggest that in 2012 many cardholders were a little less positive in their attitudes toward credit card companies and less confident of the ease of obtaining a credit card from another company than they had been in 2000. These opinions

Table 20. Changes in attitudes of holders of bank-type credit cards toward credit cards and card issuers, 2000–12

Percentage points

Attitude	Agree strongly	Agree somewhat	Disagree somewhat	Disagree strongly	Overall
Specific practices of card issuers					
The interest rates charged on credit cards are reasonable.	3	-3	-1	0	-1
Credit card billing statements are accurate.	4	-5	1	0	0
Card issuers and consumers in general					
Credit card companies make too much credit available to most people.	-6	8	-2	-1	-1
Sending solicitations that offer low rates but only for a short time probably misleads a lot of people.	-4	6	0	-1	1
Credit card companies make it hard for people to get out of debt.	6	0	-3	-4	-1
Credit card companies should not be allowed to issue credit cards to college students.	3	-4	8	-6	1
Overspending is the fault of consumers, not the credit card companies.	-6	2	3	0	-1
Card issuers and me					
I am generally satisfied in my dealings with my credit card companies.	0	4	-2	-3	-1
My credit card companies treat me fairly.	-8	11	-1	-1	1
It is easy to get a credit card from another company if I am not treated well.	-7	11	-4	0	0
General satisfaction or dissatisfaction					
Credit card companies provide a useful service to consumers.	3	-2	-1	0	0
Most people are satisfied in their dealings with credit card companies.	-6	-13	8	10	-1
Consumers would be better off if there were no credit cards.	-1	-1	5	-3	0
Information availability					
Information on the statement on how long it would take to pay off the balance if I make only the minimum payment [would be/is] useful to me.[1]	-14	3	3	8	0
Mailings and other ads that offer a low rate at first followed by a higher rate are confusing to me.	-1	-6	2	5	0

[1] The question read "would be" in 2000 and "is" in 2012. This change reflects a revision to Truth in Lending that requires disclosure of months to repay if only the minimum payment is made.

Source: Thomson Reuters/University of Michigan Surveys of Consumers.

seem consistent with the tightening of credit standards associated with the recession and the Credit Card Act.

Cardholders believe that credit cards are useful to consumers generally. In 2012, nearly all cardholders believed that credit card companies provide a useful service to consumers. More than 60 percent of cardholders disagreed with the statement that consumers would be better off if there were no credit cards, and most of the rest did not feel strongly that this statement was true. These beliefs were little changed from 2000.

Cardholders were decidedly more negative in their assessments of other consumers' satisfaction than of their own satisfaction with their credit card companies: Twenty-eight percent of cardholders disagreed somewhat and 21 percent disagreed strongly with the statement that most consumers were satisfied in their dealings with credit card companies. These assessments stand in stark contrast to their assessments of their own satisfaction with their own credit card issuers (only 4 percent disagreed somewhat and 1 percent disagreed strongly with the statement that they were satisfied in their dealings with their credit card companies; table 19) and are significantly more negative than those reported in 2000 (increases of 8 percentage points for cardholders who disagreed somewhat and 10 percentage points for cardholders who disagreed strongly that most consumers are satisfied in their dealings with credit card companies; table 20).

Information and Truth in Lending

On several occasions since 1977, Federal Reserve–sponsored Surveys of Consumers have asked consumers about their views regarding disclosures required by TILA. One series of questions asked consumers about the extent to which they agreed or disagreed with several statements about these disclosures. First, cardholders were asked whether they agreed or disagreed with the statement, "Truth in Lending statements are complicated." Agreement with this statement has trended upward over the years. In 1977, 38 percent of cardholders agreed strongly with this statement, and 73 percent agreed strongly or somewhat (table 21). In 2012, the percentage of consumers agreeing strongly with the statement increased to 52 percent, and the percentage agreeing strongly or somewhat increased to 86 percent.

The second statement on which respondents gave their opinion was, "Some information in Truth in Lending statements is not very helpful." Responses were similar to those for the first statement. The percentage of cardholders who agreed at least somewhat with this statement has also trended upward, from 59 percent in 1977 to 66 percent in 2001 and, most recently, 75 percent in 2012. These perceptions seem consistent with developments in the card market. Credit card regulation has tended to require disclosure of more information as new credit card products have been developed and features have been added to existing products. Also, some required disclosures may confuse consumers because the disclosures rely on unstated assumptions about consumers' future behavior.[51]

A third question asked whether cardholders agreed or disagreed with the statement, "Truth in Lending makes people more confident when dealing with creditors." Seventy-three percent of cardholders agreed somewhat or strongly with this statement in 1977. The percentage agreeing somewhat or strongly fell gradually over the next 24 years to 67 percent in 2001. The percentage agreeing somewhat or strongly fell 10 percentage points further in the 2000s to 57 percent in 2012.

[51] Some of the issues are whether a feature is a characteristic of credit or an ancillary product, how to disclose items that depend on unknown future events, and how to disclose the price of credit when credit is obtained jointly with the product. For discussion, see Durkin and Elliehausen, *Truth in Lending*, in note 6.

Table 21. Consumers' agreement with observations about Truth in Lending statements, selected years, 1977–2012
Percent

Statement and opinion	1977	1981	1994	1997	2001	2012
Truth in Lending statements are complicated.						
Agree strongly	38	31	41	49	45	52
Agree somewhat	35	37	36	32	30	34
Disagree somewhat	11	18	13	11	9	10
Disagree strongly	5	8	5	5	8	3
Do not know	12	6	5	2	8	1
Total	**100**	**100**	**100**	**100**	**100**	**100**
Some information on Truth in Lending statements is not very helpful.						
Agree strongly	20	16	21	23	28	33
Agree somewhat	39	41	43	42	38	42
Disagree somewhat	16	23	19	21	18	17
Disagree strongly	5	6	9	10	7	7
Do not know	20	14	8	3	9	2
Total	**100**	**100**	**100**	**100**	**100**	**100**
Truth in Lending makes people more confident when dealing with creditors.						
Agree strongly	31	28	24	26	26	15
Agree somewhat	42	44	46	43	41	42
Disagree somewhat	12	14	17	19	15	24
Disagree strongly	5	6	8	10	11	17
Do not know	11	8	5	2	7	1
Total	**100**	**100**	**100**	**100**	**100**	**100**
Most people read their Truth in Lending statements carefully.						
Agree strongly	8	7	9	7	19	6
Agree somewhat	19	24	26	22	30	14
Disagree somewhat	33	38	34	35	22	26
Disagree strongly	31	26	27	34	24	53
Do not know	9	5	4	1	5	†
Total	**100**	**100**	**100**	**100**	**100**	**100**

Note: Components may not sum to 100 because of rounding.
† Less than 0.5.
Source: Thomson Reuters/University of Michigan Surveys of Consumers.

Finally, cardholders were asked for their opinion on the statement, "Most people read their Truth in Lending statements carefully." Agreement with this statement trended upward from 1977 to 2001 but fell dramatically from 49 percent in 2001 to 20 percent in 2012. The change in the percentage of cardholders who disagreed strongly with the statement was equally dramatic: It increased from 24 percent in 2001 to 53 percent in 2012. The disclosure law's requirements have been accretive since its inception. It appears that as perceptions of TILA's complexity and doubts about the usefulness of some of the disclosures it requires have increased, cardholders' attitudes toward the law have become less positive over the years.[52]

[52] See Durkin and Elliehausen, *Truth in Lending*, in note 6.