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The 2011 and 2012 Surveys of Consumer Payment Choice

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Abstract:

In 2012, the number of consumer payments did not change significantly from 2010 as the economy settled into steady expansion following the financial crisis and recession. After increasing by 28 percent from 2008 to 2010, cash payments by consumers fell back by 10 percent from 2010 to 2012, while the share of cash payments dropped for a third straight year to 26.8 percent. However, the number and dollar value of cash withdrawals and the dollar value of cash holdings by consumers increased in 2012. Credit and charge card payments by consumers, which declined in 2009, rebounded further, increasing by 14 percent from 2010 to 2012. The steady trend decline in paper check payments by consumers continued. Debit cards and cash continued to account for the two largest shares of consumer payments in 2012 (29.9 and 26.8 percent, respectively), but the credit share reached 21.6 percent—surpassing its highest level recorded in the SCPC in 2008. The 2011 and 2012 SCPC include methodological improvements to the measurement of prepaid cards and mobile banking and payments. In 2012, 52 percent of consumers had at least one type of prepaid card, up slightly from 2011; also in 2012, 36 percent of consumers used mobile banking and 18 percent made a mobile payment. The 2008–2012 SCPC contains results that may help researchers and policymakers identify potential indirect effects of Regulation II (the Durbin Amendment) on consumers and may help to inform the Federal Reserve’s new strategic plan for the payment system.

JEL Classifications: D12, D14, E42

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This report, which may be revised, is available on the web site of the Federal Reserve Bank of Boston at <http://www.bostonfed.org/economic/rdr/index.htm>.

Complete and detailed acknowledgments appear on the first page of this report. The primary authors are responsible for any errors that may remain.

The views expressed in this paper are those of the authors and the Federal Reserve Bank of Boston. They do not necessarily represent the views of the other Federal Reserve Banks or the Board of Governors of the Federal Reserve System.

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I. Introduction

The 2012 Survey of Consumer Payment Choice (SCPC) is the fifth in a series of annual studies conducted by the Federal Reserve Bank of Boston to gain a comprehensive understanding of the cash and noncash payment behavior of U.S. consumers.¹ This report summarizes data collected in two separate surveys, the 2011 and 2012 SCPC, and contains 49 tables with detailed estimates of the number of consumer payments, rate of adoption, and share of consumers using nine common payment instruments—cash, checks, money orders, traveler’s checks, debit cards, credit cards, prepaid cards, online banking bill payments (OBBP), and bank account number payments (BANP)—plus payments made directly from consumers’ income source. The report also contains estimates of consumer activity related to banking, cash management, and other payment practices; consumer assessments of payment characteristics; and a rich set of consumer and household demographic characteristics.

Because this report summarizes the results of two separate annual surveys—2011 and 2012—most of the change results presented here focus on the 2010–2012 period. However, in cases when a change from 2011 to 2012 was especially important and/or statistically significant, we mention a change from 2011 to 2012.² Because we now have several years of the SCPC data, part of the analysis presented here focuses on the longer-term time trend: from 2008 to 2012.³

In 2012, the number of consumer payments declined about 4 percent (statistically insignificant) from 2010, to 68.9 per month, as the economy settled into steady expansion after the financial crisis and recession. During this time, the share of transactions conducted with payment cards

¹ For detailed reports on earlier versions of the SCPC, see Foster, Meier, Schuh, and Zabek (2009, 2011) and Foster, Schuh and Zhang (2013).

² For details on the statistical significance of the results see a separate technical appendix (Angrisani, Foster, and Hitczenko 2014).

³ Some of the numbers from SCPC surveys conducted prior to 2011 might have been revised since the earlier results were published.

increased, while the share of transactions conducted with paper instruments declined, although the overall shift in shares by payment instrument group was not statistically significant.⁴ Debit cards remained the most popular payment instrument among consumers in 2012, accounting for 29.9 percent of their monthly payments. But credit and charge card payments experienced the largest increase, reaching 21.6 percent share in 2012—surpassing its highest level recorded in the SCPC in 2008.⁵ The share of cash transactions, which had jumped 7 percentage points in 2009, has been declining slowly since then to 26.8 percent in 2012. However, the number and dollar value of cash withdrawals, and the dollar value of cash holdings, increased in 2012. Finally, the share of online transactions—both bill and nonbill payments—increased significantly from 2010 to 2012, while the shares of transactions made in person, by mail, or by phone declined.

The timing of the 2012 SCPC coincides with the data collection for the 2013 Federal Reserve Payments Study (FRPS; Federal Reserve System 2013). However, the latter study includes *noncash* payments made by businesses and government as well as those made by consumers. Therefore, the number of payments by consumers as reported in the SCPC is not comparable with the number of payments in the whole economy as reported in the FRPS. Nevertheless, the SCPC findings are generally consistent with those in the FRPS in two ways. First, the relative importance of payment instruments is the about same: the number (volume) of debit card transactions exceeded the number of credit card transactions; this volume in turn was higher than the volume of paper checks. However, electronic payments (via the ACH) exceeded check payments in 2012 for the whole economy, whereas check and electronic payments (OBBP and BANP) by consumers were similar in magnitude. Second, changes from 2009 to 2012 in noncash

⁴ The statistical hypothesis of no change in shares by payment instrument type—paper, card and electronic—from 2010 to 2012 cannot be rejected at the 95 percent significance level.

⁵ Henceforth “credit and charge” card payments will be referred to as “credit card” payments, unless otherwise indicated.

payments by consumers (SCPC) were broadly similar to changes in all noncash payments (FRPS): total noncash payments grew 2.9 percent per year for the SCPC and 3.1 percent per year for the FRPS, although the growth rates of consumer payments relative to the total varied across individual instruments. In the near future, the FRPS is expected to provide estimates of payments made by consumers to allow for a more exact comparison across the two data sources.

The SCPC may provide useful data for the Federal Reserve's strategic focus for financial services during the next decade (Pianalto 2012). An important element of the Fed's plan is to begin taking into account the preferences of end users, such as consumers, when making decisions about the payment system. The SCPC includes data on actual consumer payment choices as well as consumers' attitudes toward payment instruments and practices, in order to determine consumers' preferences toward payment instruments. A particular advantage of the SCPC data is that it contains estimates for the same consumer over multiple years. This longitudinal panel of consumers' data, which now extends to five years (2008–2012), offers unique information that is especially useful for researchers and policymakers.

The SCPC was developed by the Consumer Payments Research Center (CPRC) of the Boston Fed and implemented by the RAND Corporation as an online survey, using RAND's American Life Panel.⁶ The 2011 SCPC had 2,151 respondents and the 2012 SCPC had 2,065 respondents; responses were weighted to represent all U.S. consumers 18 years old and older. Of the 2012 SCPC respondents, 1,926 of them (93 percent) were also in the 2011 SCPC, and 615 respondents completed all five surveys since 2008. The surveys were implemented in the fall of 2011 and 2012, primarily in October. Also in October 2012, the CPRC teamed with representatives of the

⁶ In 2013, the American Life Panel became a joint venture between the RAND Corporation (Labor and Population Division) and the University of Southern California (Dornsife Center for Economic and Social Research).

Federal Reserve Banks of Richmond and San Francisco to implement a consumer payment diary to supplement the SCPC.⁷

As in prior years, the results of the 2011–2012 SCPC reflect modifications in the questionnaire and other aspects of survey methodology, introduced to improve the overall quality and measurement of consumer payment choices. To this end, the following revisions were made to the 2010 survey questionnaire:

- Questions were modified and added to improve measurement of mobile banking and mobile payments,
- The prepaid card classification was expanded to facilitate respondent recall,
- New questions were added about nonbank accounts and online banking,
- An improved methodology was introduced for detecting and reducing online reporting errors.

Improvements were also made to the treatment of invalid and outlier observations in the SCPC data. The process of data cleaning was fully automated, making it possible to release simultaneously two years of results and presumably to accelerate the publication of data and results in future years.

All SCPC data are available free of charge to the public once the official results have been published, along with complete technical documentation. As with previously published results, the SCPC estimates reported here may be revised in the future due to additional process improvement and insights from new data.

The remainder of this paper comprises three parts: 1) a written summary of the key SCPC results; 2) a set of official tables containing most of the SCPC results; and 3) a set of tables

⁷ Official Diary of Consumer Payment Choice results are being prepared for publication.

containing the official definitions of important survey concepts. More details are available in a separate technical appendix by Angrisani, Foster, and Hitczenko (2014).

II. Concepts and Content

The main overall aim of the SCPC program is to measure U.S. consumer payments behavior. Broadly speaking, the SCPC asks consumers what payment accounts and instruments they have and how they use these accounts and instruments. The two main goals of the SCPC program are: 1) to provide aggregate data on trends in U.S. consumer payment choices; and 2) to provide a consumer-level database to support research on consumer payment choices. This section provides motivation, definitions, and explanations for the key concepts in the survey.

Unit of Measurement

The reporting unit of the SCPC is an *individual* consumer in the United States, age 18 or older. The primary reason for choosing this unit over the household is that it is costlier to obtain estimates for all consumers in a household and it is unlikely that a head of household can accurately track payments of all members, especially for those payments that are made with cash. Consequently, the SCPC does *not* provide comprehensive estimates of the payment choices of *household* units. However, information about each reporting consumer's household is collected in the survey and can be used to tabulate consumer payment behavior by type of household, and for research on the relationship between consumer payment choice and household characteristics.⁸

⁸ The decision not to collect payment information at the household level should not affect the statistical properties of the aggregate estimates of consumer payment behavior. However, the SCPC sampling weights do not account for household characteristics, and the CPRC is continuing to study the statistical and economic relationships between

Money, Credit, and Payments

The core concept of measurement in the SCPC is a *payment instrument*, something consumers use to initiate payment to another party (see Definitions Table 2 for more information). The payment instrument authorizes the transfer of some form of *money* from the payer (consumer) to the payee (a merchant, for example) to settle transactions. Economists most commonly define money as M1, which consists of the following:⁹

- Currency, or “cash” (coins, bills and notes),
- Balances in a demand deposit account (checking) or other checkable deposit account at a bank or other depository institution,
- Traveler’s checks.

Thus, money and payment instruments are integrally related. The time between authorization of payment (using the instrument) and the time when ownership of money is transferred from payer to payee involves provision of (very) short-term credit.

The relationship between money and payments varies by instrument, however. Two forms of money, cash and traveler’s checks, also serve as the actual payment instrument; in these cases, consumers give the payment instrument (money) to the payee. Other payment instruments are not money *per se* but a technology that instructs a bank to transfer money from the consumer’s

individual consumer payments and household payments in multi-consumer households. The SCPC contains a modest number of respondents who are members of the same household.

⁹ For the official definition of M1 and recent statistics, see Federal Reserve Statistical Release H.6, “Money Stock Measures,” at <http://www.federalreserve.gov/releases/h6/current/h6.htm>.

deposit account to the payee.¹⁰ Four technologies serve as payment instruments that can access funds in checking and other deposit accounts:

- Paper checks,
- Debit cards (also called check cards),
- Online banking bill payments (OBBP), which consumers initiate from their bank's online banking web site,
- Bank account number payments (BANP), which occur when consumers give their bank routing and account numbers to a third party other than the bank to authorize payment.

One recent, complicating exception to this classification is that some traveler's checks are now being issued as prepaid cards (see below). Two other payment instruments have unique properties:

- Credit cards authorize payments to be settled much later and hence are based on medium-term debt (up to 30 days) rather than money,
- Prepaid cards (also called gift cards, stored-value cards, or prepaid debit cards—including some types of traveler's checks) authorize payment from balances that consumers pre-fund with some kind of payment instrument.¹¹

The SCPC also tracks payments made by consumers directly from their income source (for example, from their paycheck). Although payments made directly from income sources replace

¹⁰ For more details about the difference between ("basic") money and payment instruments ("derivative media"), see Tobin (2008).

¹¹ Depending on the type of prepaid card, including traveler's checks, the consumer's pre-funded balances may or may not be held in a bank account and could be paid using many different instruments, including cash, credit card, or BANP. In any case, the variety of sources of funds backing the prepaid card, as well as the legal and financial protections associated with them, may not be known or understood well by consumers. Also, prepaid cards funded by one consumer may be accessed and used by another consumer.

conventional payments, they are not counted as a payment instrument at this time. See Definition Tables 1 and 2 for more details about banking concepts and payment instruments.

Beginning in 2011–2012, the official SCPC results include new tables that classify consumer payments by whether their source of funding is an asset or a liability (see SCPC Tables 5, 20, 26a, and 26b). The purpose of these new tables is to link directly the measurement of consumer choice of payment instruments to the underlying demand for money by consumers.¹²

A small portion of payments are funded by assets other than M1 money.¹³ Some prepaid card payments may be funded by M1 money, but the SCPC does not ask consumers to distinguish prepaid card use by source of funding so it is not possible to determine the type of asset that funds these payments.

Payment instruments have various types of *characteristics* that affect their appeal to consumers: acceptance, convenience, cost of use, cost of setup, recordkeeping, and security. For each payment instrument, the SCPC asks consumers to rate each of these characteristics as it applies to that instrument on a 1-to-5 scale (with 5 being the highest or best rating). Presumably, consumers base their ratings on their own objective knowledge about the actual payment characteristics they face. However, these ratings may reflect incomplete information, memory loss, faulty estimation, or even subjective perception, making them imperfect measures of the instruments' true characteristics. See Definition Table 6 for more information about payment instrument characteristics.

¹² For an introduction and summary of the demand for money, see Briglevics and Schuh (2013).

¹³ Some of the other assets may be funded by M1 money, but we cannot identify that from a consumer survey.

Adoption and Use of Accounts and Instruments

The SCPC focuses primarily on two types of consumer payment choice: adoption and use. It measures the *adoption* (or *ownership*) of payment accounts, payment instruments, and other payment practices by asking whether or not consumers have the item and, for many items, whether they ever had it if they did not have it at the time of the survey. The proportion of consumers who did not have an item at the time they responded to the survey but had it in the past reflects a minimum estimate of the percentage of consumers who had *discarded* the item. For some payment instruments, such as cash and money orders, adoption and discarding occur naturally as part of their use, so ownership of these instruments is defined by their use during the 12 months preceding their taking the survey.

The SCPC also measures consumers' *use* of payment instruments and other payment practices in two ways: it considers the share of consumers who use them in a month or year and the number of times consumers use them. In principle, it would be useful for the SCPC to measure the *dollar value* of consumer payments in addition to the number (volume) of payments. However, the SCPC does not attempt to measure the dollar value of payments because the dollar values are presumably more difficult for consumers to report.¹⁴ See Definition Tables 3 and 4 for more information about adoption and use.

The SCPC also measures consumer payments by *type of transaction*. Consumer payment transactions are broadly classified as bills or nonbills. A bill is a recurring payment—typically paid monthly, but potentially paid at any one of a variety of frequencies—that is usually made after the purchase of a good or service (bills include loan repayments, utility payments,

¹⁴ The dollar values are included in the new 2012 Diary of Consumer Payment Choice (forthcoming). See also Angrisani, Kapteyn, and Schuh (forthcoming) and Hitczenko (2013) for evidence on recall of the number and dollar value of payments.

subscription fees, membership dues, etc.). Nonbills are all other payments, which are further broken down into two categories: payments for retail goods and services and person-to-person (P2P) payments. Both nonbill payment categories can be further divided according to the locations where they are made: online and other electronic payments (such as those made on mobile phones), and by mail, in-person, or by phone.¹⁵ See Definitions Table 5 for more details about transactions.

The SCPC employs a flexible reporting strategy to enhance recall and maximize the accuracy of its estimates of the number (use) of payments. First, respondents are asked to report the number of payments made in a *typical* period rather than a *specific* calendar period. A typical period is intended to be interpreted as a sort of implicit average that ideally is consistent with consumers' sense of their regular or trend behavior; typical periods also have the advantage of eliminating unusual events that might affect high-frequency payments and obscure longer-run trends.¹⁶ Second, respondents are allowed to choose the frequency (week, month, or year) that best suits their recollection of payments for each combination of payment instrument and type of transaction. Third, respondents are asked to report their number of payments at relatively detailed levels—for each combination of 10 uniquely defined means of payment (nine payment instruments and direct deduction from income) and seven uniquely defined transaction types: three types of bills and four types of nonbill payments for goods and services, including payments to other people who are not merchants. Not all combinations of payment instrument and transaction type are possible because not all instruments are accepted for all transactions. Thus, respondents may report up to 41 categories of payments, depending on how many instruments they have adopted.

¹⁵ The respondents were asked about their bill payments, but what is classified as a bill payment may vary across the respondents. The CPRC is currently developing a more detailed and comprehensive survey on bill payments.

¹⁶ For a comparison of the effectiveness of using the typical period relative to a specific calendar period in a survey of consumer payment choice with recall, see Angrisani, Kapteyn, and Schuh (forthcoming).

Banking and Payment Practices

Most payments are made directly or indirectly through funds in an account at a bank or other depository institution, so it is informative to track consumer access to bank accounts as part of understanding consumer payment choice. The SCPC asks consumers whether they have a *bank account* or not; if so, it asks whether they have a checking or saving account, including money market fund (MMF), and the type of financial institution in which they hold their primary checking and saving accounts. The survey also asks consumers about their *bank account access* in general (to check balances, make transfers, or conduct other banking business) using the following methods: payment instruments (blank checks, ATM/debit cards, OBBP, and BANP), by visiting a bank branch or ATM, and by remote banking (telephone banking, online banking, and mobile banking).

The manner in which consumers access their bank accounts to make payments and perform other banking tasks is becoming increasingly complex. For example, as of 2011 the SCPC tracks at least three different *technology platforms* for online banking: computer (including laptops), mobile phone, or other internet-connected device (such as a tablet). Consumers can even perform online banking two ways on a mobile phone: via the phone's internet browser, in which case it works essentially the same way as on a computer or tablet, or by using a downloaded app that is optimized for online banking on a mobile phone.

Payment services also are provided by *nonbank payment service providers*. One example is an online payment account, offered by Amazon Payments, Google Checkout, and PayPal, which can process payments using traditional payment instruments. The SCPC does not have the capacity to track these payments separately. Thus, for example, if a consumer reports making six credit card payments per month, this estimate may comprise four payments at retail stores and two payments via PayPal, but only the total credit card payments (six) are counted. Another type of nonbank payments provider is a prepaid card. Some prepaid cards are issued by a single merchant and accepted for payment only with that merchant (cards like this are

called a “closed-loop” prepaid card). Other prepaid cards may be issued by nonbank prepaid card companies such as NetSpend. The funds received for these prepaid cards may be deposited in a commercial bank account of the card issuing company, but it is not always possible for individual cardholders to identify the location of the funds. Finally, commercial banks also offer their own bank prepaid cards. In summary, the relationship between the prepaid card issuer (bank or nonbank) and the storage of the funds (bank account or not) varies and is difficult to track.

Official SCPC Tables and Data

The official 2011–2012 survey results appear in SCPC Tables 1–39 of this paper (a total of 49 tables). The tables are organized into seven sections:

1. *Adoption* – Consumer adoption of bank accounts, nonbank payment accounts, and payment instruments and practices. **[Tables 1–12]**
2. *Liquid assets* – Cash and prepaid holding and cash withdrawals. **[Tables 13–17]**
3. *Incidence of use* – Share of consumers using their adopted payment instruments to pay bills, purchase goods and services, and make other payments. **[Tables 18–25]**
4. *Frequency of use* – Number and share of payments by type of transaction. **[Tables 26a–32]**
5. *Loss, theft, or fraud* – Percentage of consumers experiencing loss, theft or fraud by payment instrument. **[Table 33]**
6. *Assessments* – Consumer assessments of key characteristics of payment instruments and payment practices. **[Tables 34–35i]**
7. *Demographics* – Information about consumer demographic characteristics and financial status. **[Tables 36–39]**

A complete set of analogous tables containing estimates of the standard errors for the SCPC results is available online.¹⁷ The official definitions of survey concepts are found in Definition Tables 1–7.

The SCPC tables contain most, but not all, of the results from the 2011 and 2012 surveys. The 2012 SCPC public-use microdata set contains the consumer-level SCPC responses to all of the survey questions, including those used to create the official tables, and also many more responses that are not tabulated or presented here.¹⁸ A complete list of variables in the 2011 and 2012 SCPC datasets can be obtained from the data codebook and questionnaire.¹⁹ All SCPC data users are strongly encouraged to read Section XII, Survey Methodology and Data, and the technical appendix (Angrisani, Foster, and Hitczenko 2014) for more information and instructions on how to use the data.

III. Consumer Use of Payment Instruments

Total Payments

Following an increase in 2010, the total number of consumer payments in a typical month dropped slightly in 2011 and again in 2012, as shown in Figure 1, but the change from 2010 to 2012 was not statistically significant.²⁰ The average number of payments made by consumers

¹⁷ To obtain the standard error tables, see <http://www.bostonfed.org/economic/cprc/SCPC/index.htm>

¹⁸ The full 2012 SCPC survey was administered to 3,176 respondents. However, to facilitate the year-to-year comparisons, the 2012 SCPC tables are based on 2,065 respondents who had taken any of the earlier surveys. Including the 1,111 new SCPC panelists significantly shifted the sample composition.

¹⁹ To obtain the 2012 SCPC data set, codebook, and questionnaire, see <http://www.bostonfed.org/economic/cprc/SCPC/index.htm>

²⁰ The statistical hypothesis of no change in the number of payments by consumers from 2010 to 2012 cannot be rejected at the 95 percent significance level.

(per capita) decreased by 3.0 from 2010 to 2012 (Q4 to Q4) to 68.9 in a typical month.²¹ Overall, fluctuations in the number of consumer payments were relatively modest in 2008-2012. However, with only five time-series observations thus far, it is still far too early to determine the true volatility and cyclicalities in these data.

It is important to bear in mind that the number of consumer payments is a relatively uncommon measure that is not comparable to mainstream estimates of consumer spending. In particular, the number (quantity of) of consumer payments in the SCPC differs from the economic measure of real (quantity of) consumption in the National Income and Product Accounts (NIPA), perhaps the most common measure of consumer spending. The two measures differ in at least three conceptually substantive ways: 1) the types of spending included (the number of payments includes the quantity of consumption plus other consumer spending, such as mortgage payments, person-to-person payments, and payments associated with buying assets); 2) the units of measurement of consumption spending (the number of consumer payments measures how many times a consumer pays for something, not the number of things a consumer buys); and 3) the population of consumers covered (the SCPC includes only consumers in the noninstitutional population age 18 and above, rather than all consumption, and it may not accurately reflect all household spending). For extended discussion on the relationship between the number of payments and consumption, see Foster, Schuh, and Zhang (2013).

²¹ All numbers reported in the text are copied from numbers in the official tables or, in the case of transformations such as growth rates, calculated using the numbers in the official tables, which are rounded to integers or a small number of decimals. Similar calculations using variables from the official SCPC dataset, which have more precision, may produce slightly different estimates in some cases due to the lack of rounding.

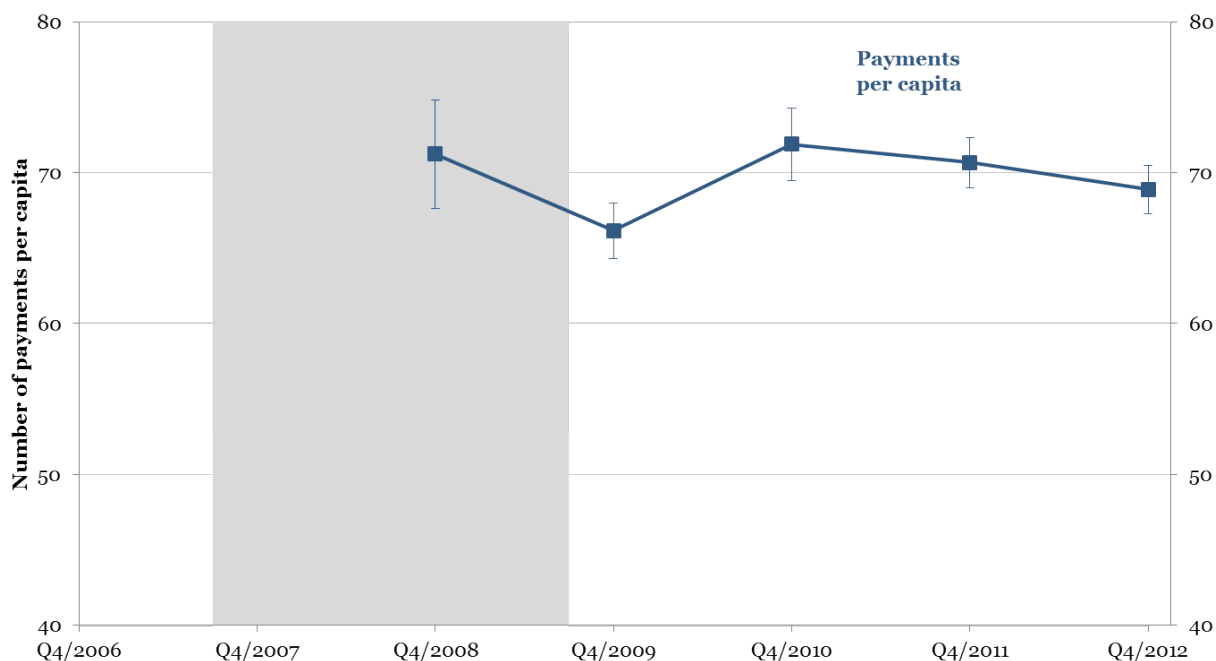


Figure 1: Number of consumer payments per capita per month

Source: 2011–2012 Survey of Consumer Payment Choice, Table 27. The vertical lines around each point estimate represent two standard deviations.

Note: The shaded area indicates recession as defined by the NBER.

Payments by Instrument and Transaction Type

In 2012, the SCPC tracked the number of payments made by consumers, using nine means of payment (eight payment instruments plus automatic deductions from income sources) for seven transaction types, as shown in Table 1. The table shows the average number of payments made by consumers in a typical month for each combination of instrument and transaction.²² Blank table entries indicate combinations for which the means of payment is assumed not to be accepted for the transaction. For example, consumers cannot use cash to pay online.

²² The average U.S. household had about two consumers (age 18 or older) in 2012, so doubling the numbers in Table 1 yields an approximate estimate of payments per household (excluding payments by children).

The most common payment instrument/transaction type combinations were: cash (8.7 transactions per month), debit cards (8.2), and credit cards (5.6) to pay for retail goods, followed by payments for services using cash (5.6), debit cards (4.7) and credit cards (3.7). The largest numbers of bill payments were made by mail, phone, or in person using check (2.9), cash (2.2) or debit cards (2.2). Among payment instruments, however, debit cards were used to make the most bill payments: 1.7 automatically, 2.3 online, and 2.2 by mail, phone, or in person, for a total of 6.2 debit card bill payments. The average consumer also makes several automatic and online bill payments each month using OBBP and BANP.²³

	Bill Payments			Nonbill Payments			
	Automatic	Online	Mail, phone, in person	Online	Retail Goods	Services & other	Person to person
Cash			2.2		8.7	5.6	1.9
Check			2.9	0.8	1.2	1.1	0.5
Money order			0.2	0.1	0.1	0.1	0.0
Traveler's check*							
Debit card	1.7	2.3	2.2	1.3	8.2	4.7	0.3
Credit card	1.5	1.2	1.5	1.3	5.6	3.7	0.1
Prepaid card			0.1	0.1	0.4	0.3	
OBBP	1.1	1.8					0.3
BANP	1.3	1.3		0.5			0.2
Income deduction	0.5						

Table 1: Average number of payments made in typical month of 2012, by transaction type

* Traveler's checks are reported in a separate section, outside the payment instrument/transaction type section, and average 0.0 payments after rounding.

Source: 2011–2012 Survey of Consumer Payment Choice, Tables 29–31.

²³ The number of payments in each category may not necessarily reflect consumers' preferred choices if there are constraints on their adoption and use of payment instruments, if merchants vary in their acceptance of payments, or if other factors influence consumer decisions. However, if these actual choices do reflect consumers' preferred payment choices, then consumer preferences can be estimated from a model of consumer payment choice as shown in Koulayev, Rysman, Schuh, and Stavins (2012).

Payments by Transaction

Of the 68.9 payments the average consumer made in a typical month in 2012, 22.0 were bill payments (31.9 percent of total payments) and 46.9 were nonbill payments (68.1 percent), as shown in Figure 2.²⁴ Among bills, the most common method of payment by consumers was by mail or in person (9.2 per month), followed by discretionary bill payments made online (6.7) and bill payments set up by consumers to be made automatically each month (6.1).

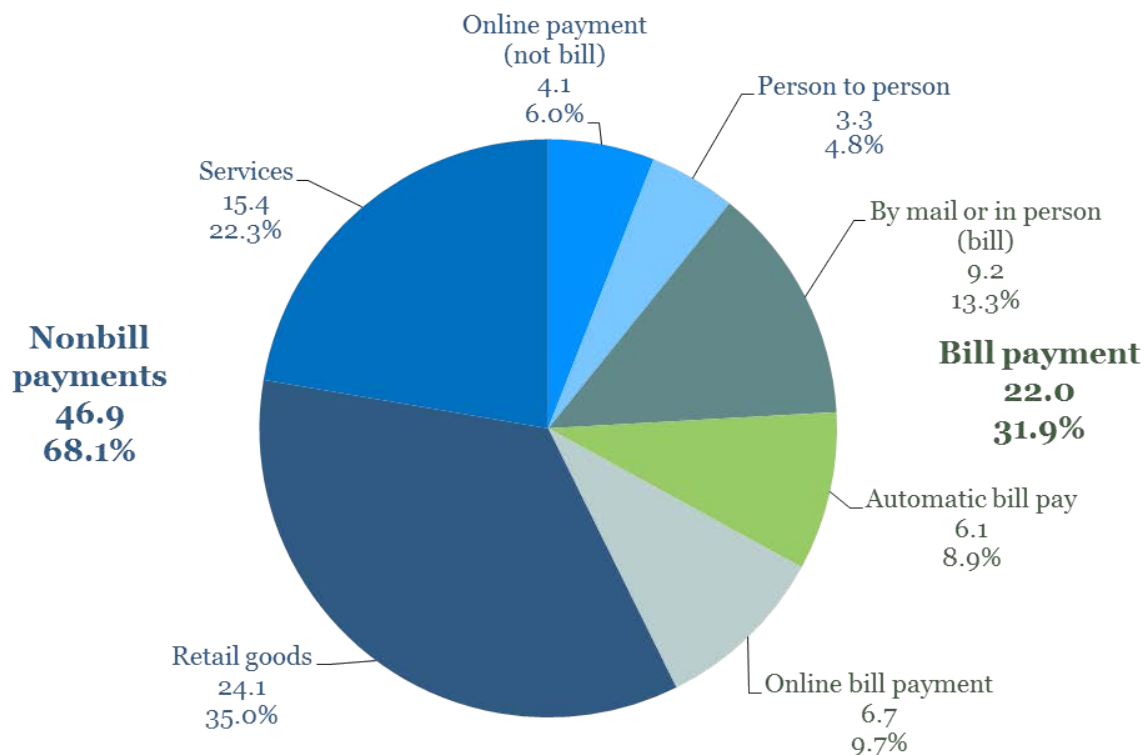


Figure 2: Number of consumer payments per month by transaction type

Source: 2011–2012 Survey of Consumer Payment Choice, Tables 28.

²⁴ The number of bill payments in the SCPC tend to be higher than the estimates from the United States Postal Service (<http://about.usps.com/current-initiatives/studying-americans-mail-use.htm>). The possible reasons for this discrepancy were explained in Foster et al. (2013).

Approximately 89.4 percent of nonbill consumer payments were made in person, by mail, or by phone. Of these transactions, in a typical month consumers made an average of 24.1 payments for retail goods and 15.4 payments for services while shopping offline, plus another 2.5 payments directly to another person (person-to-person, or P2P). Consumers made an average of 5 nonbill online payments per month.

The shares by transaction type changed significantly in 2011 and again in 2012.²⁵ The share of online transactions—both bill and nonbill—increased over the two-year period, while the share of payments for services and P2P dropped. The share of retail payments did not change significantly during the 2010–12 period (Figure 3a). The share of consumer payments for services made by mail, in-person, or by phone declined by 2.8 percentage points and the share of P2P payments declined by 1 percentage point, while the share of consumer payments made online for retail goods and services combined increased by 1 percentage point and the share of online bill payments increased by 1.6 percentage points. Overall, the share of payments made in person, by mail, or by phone declined by 3.1 percentage points, while the share made online increased by 3.1 percentage points.

²⁵ The statistical hypothesis of no change in the mix of transaction payments by consumers from 2010 to 2012 can be rejected at the 99 percent significance level.

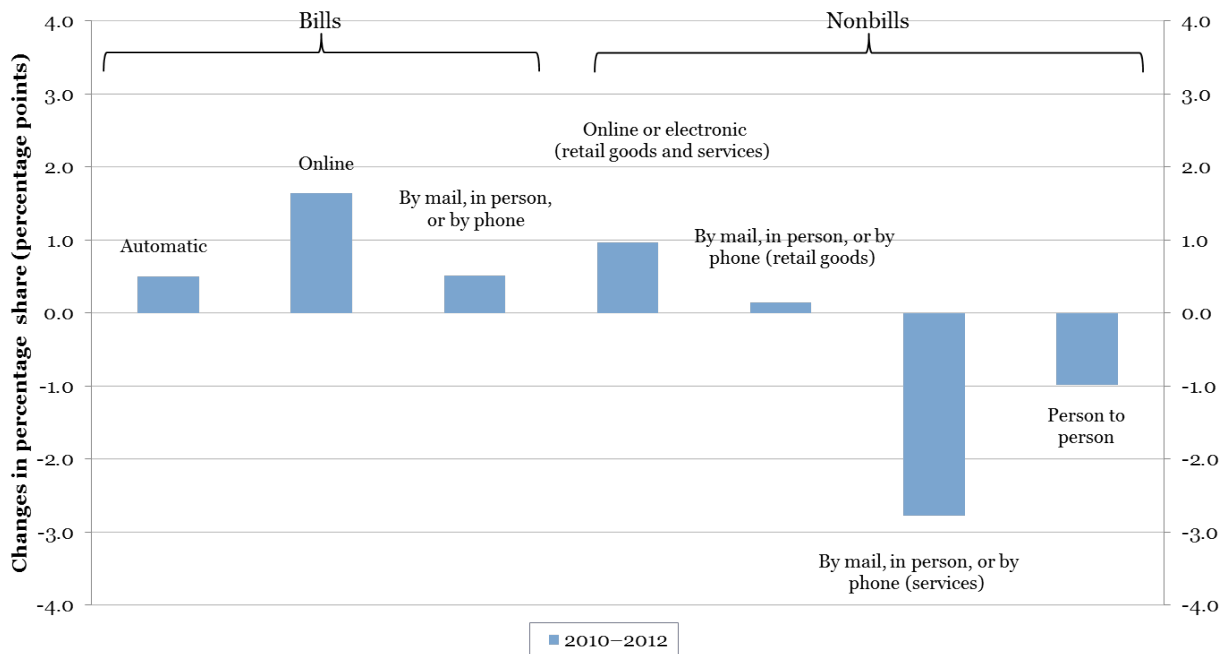


Figure 3a: Changes in shares of consumer payments by transaction type, 2010–2012

Source: 2011–2012 Survey of Consumer Payment Choice, Tables 29–31.

Figure 3b shows the five-year trend in consumer bill payment shares by transaction type and Figure 3c shows the trend for consumer nonbill payment shares, both based on the 2008–2012 SCPC data. As both figures show, none of the shares exhibited monotonic shifts during those five years. However, among bill payments (Figure 3b), the share of bill payments made in person or by mail increased until 2011, when it dropped slightly. The share of bill payments made online increased after 2010. Among nonbill payments (Figure 3c), the share of retail goods moved in the opposite direction from the share of services.

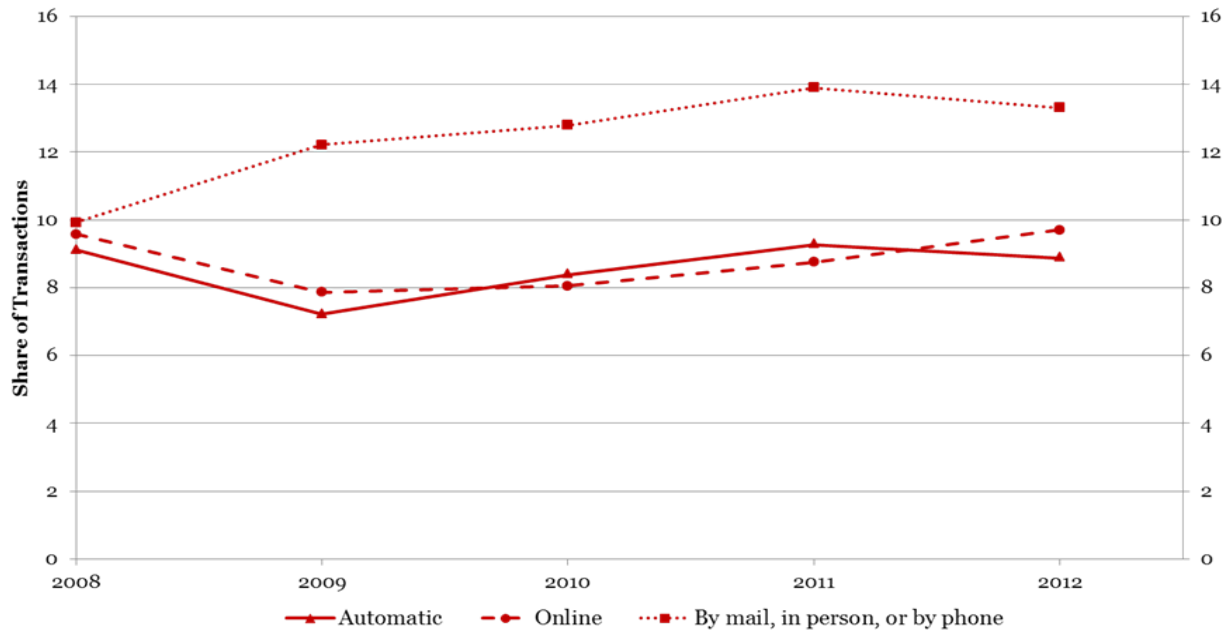


Figure 3b: Consumer bill pay as a share of all transactions, by transaction type, 2008–2012

Source: 2010, 2011–2012 Survey of Consumer Payment Choice.

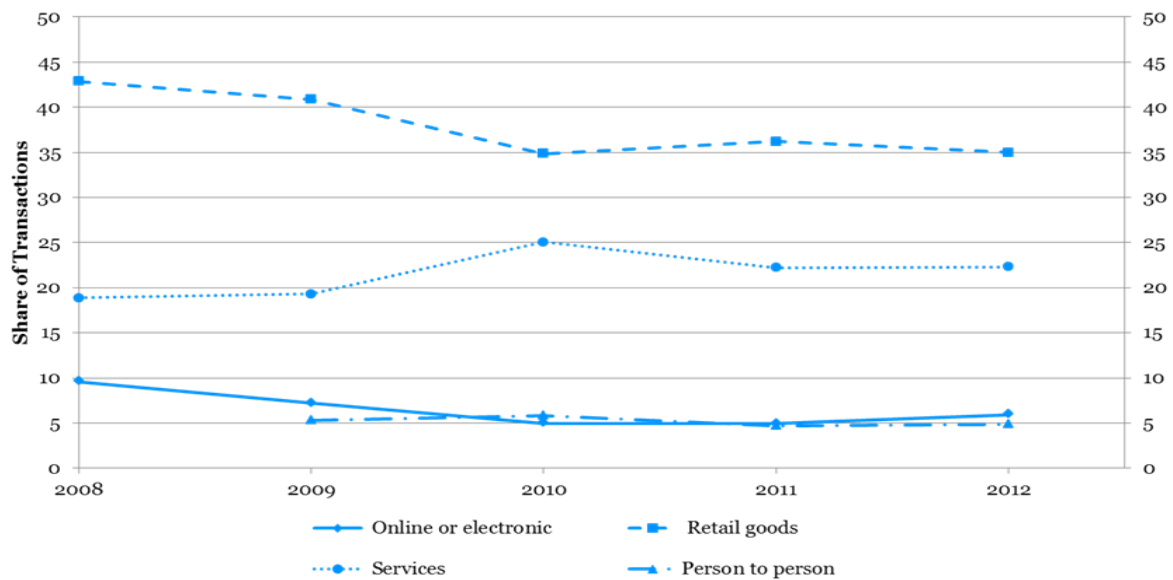


Figure 3c: Consumer nonbill pay as a share of all transactions, by transaction type, 2008–2012

Source: 2010, 2011–2012 Survey of Consumer Payment Choice.

Payments by Instrument Type

In 2012, consumers made an average of 36.4 payments using payment cards (or 52.8 percent of total payments), 25.5 payments using paper instruments (37.0 percent), and 6.5 payments using electronic and other instruments (9.4 percent) in a typical month, as shown in Figure 4. Debit cards and cash continued to be most popular among consumers. Consumers made an average of 20.6 debit card and 18.4 cash payments in a typical month, accounting for about three-fifths of all consumer payments in a typical month (57 percent). The next most popular payments instruments were credit cards (14.9 payments) and checks (6.5 payments). All other payment instruments were used for an average of 8.4 payments per month.

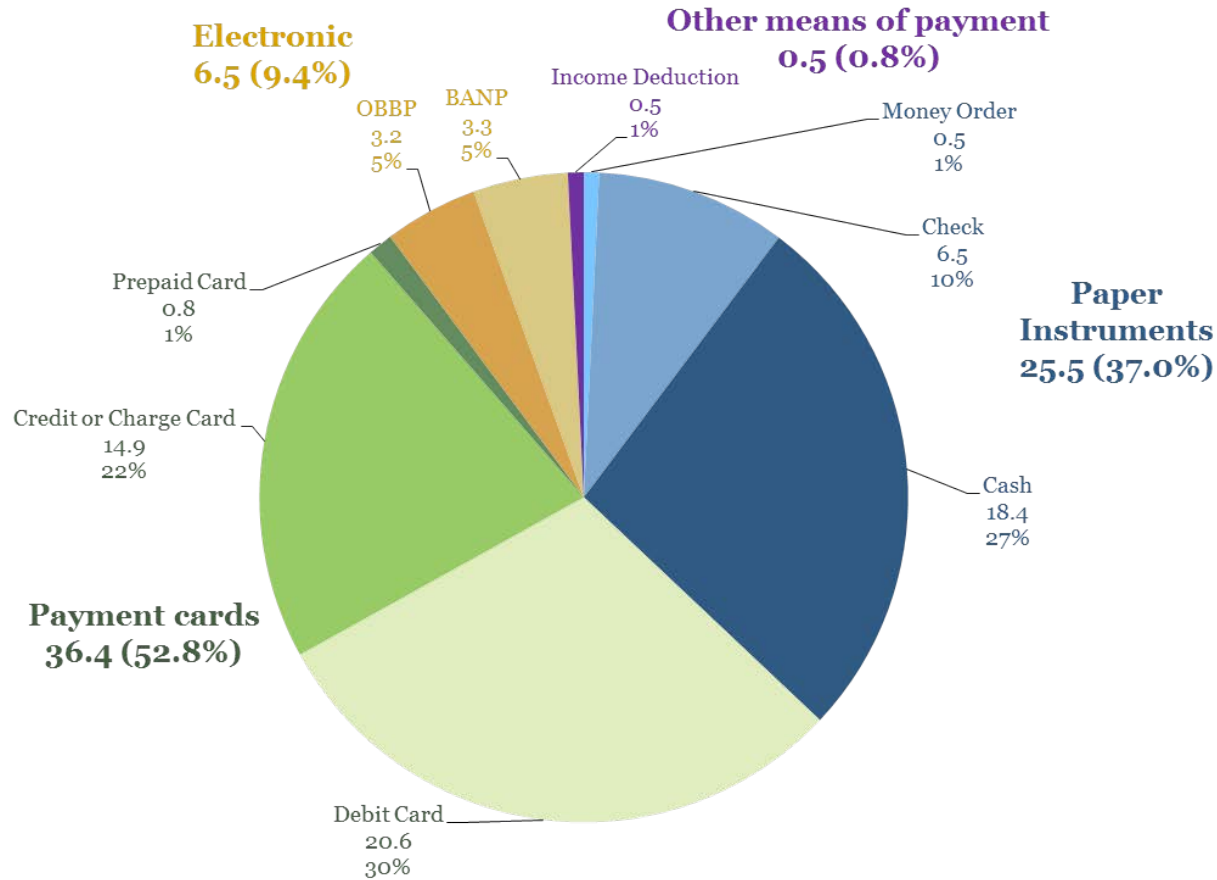


Figure 4: Number and share of consumer payments in a typical month, by payment instrument

Source: 2011–2012 Survey of Consumer Payment Choice, Table 27.

Note: Percentages do not sum to 100 and number of transactions do not sum to aggregated payment instrument categories due to rounding.

Between 2010 and 2012, consumers' use of payment instruments shifted somewhat to credit cards from cash, checks and debit cards, as shown in Figure 5a.²⁶ The shares of consumer payments made using credit cards increased 3.4 percentage points, while the shares made using cash, checks and debit declined by 1.9, 0.7, and 1.4 percentage points, respectively. Overall, the share of payments made with paper instruments declined by 2.7 percentage points, while the share made with cards increased by 2.3 percentage points. The 2011 and 2012 decrease in check share was consistent with a longer-term trend decline in consumer check use. The shares of other payment methods exhibited smaller changes, and none of the changes in individual shares are highly statistically significant.

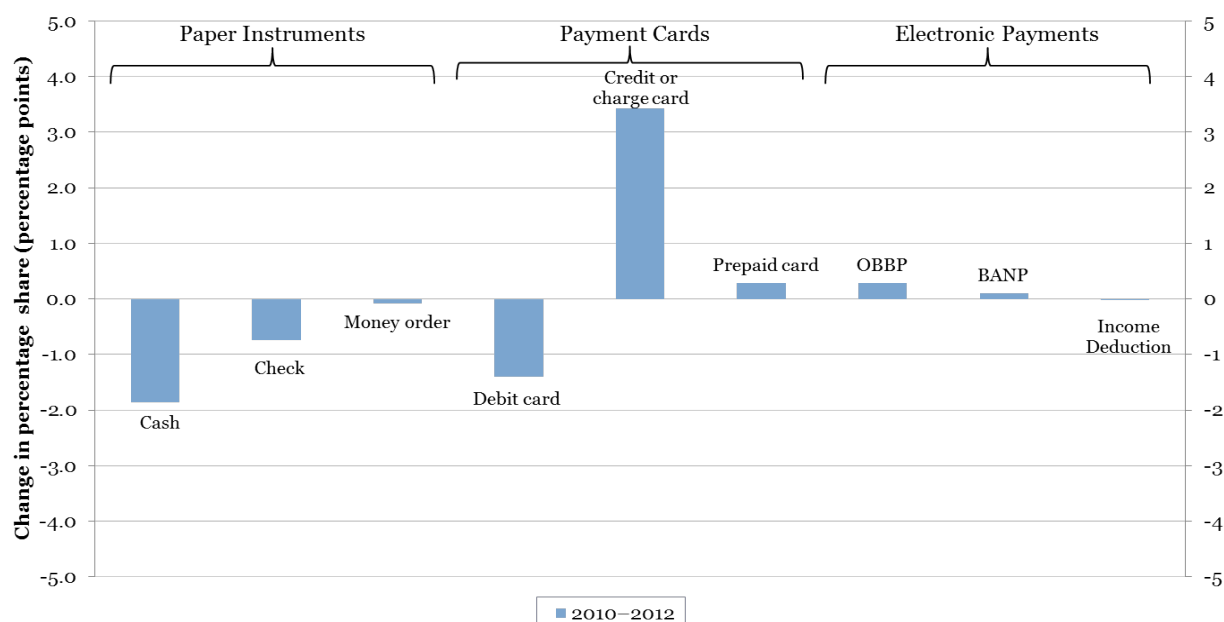


Figure 5a: Change in shares of consumer payment by instrument type, 2010–2012

Source: 2011–2012 Survey of Consumer Payment Choice, Table 27.

²⁶ The statistical hypothesis of no change in the mix of payment instrument use by consumers from 2010 to 2012 can be rejected at the 95 percent significance level.

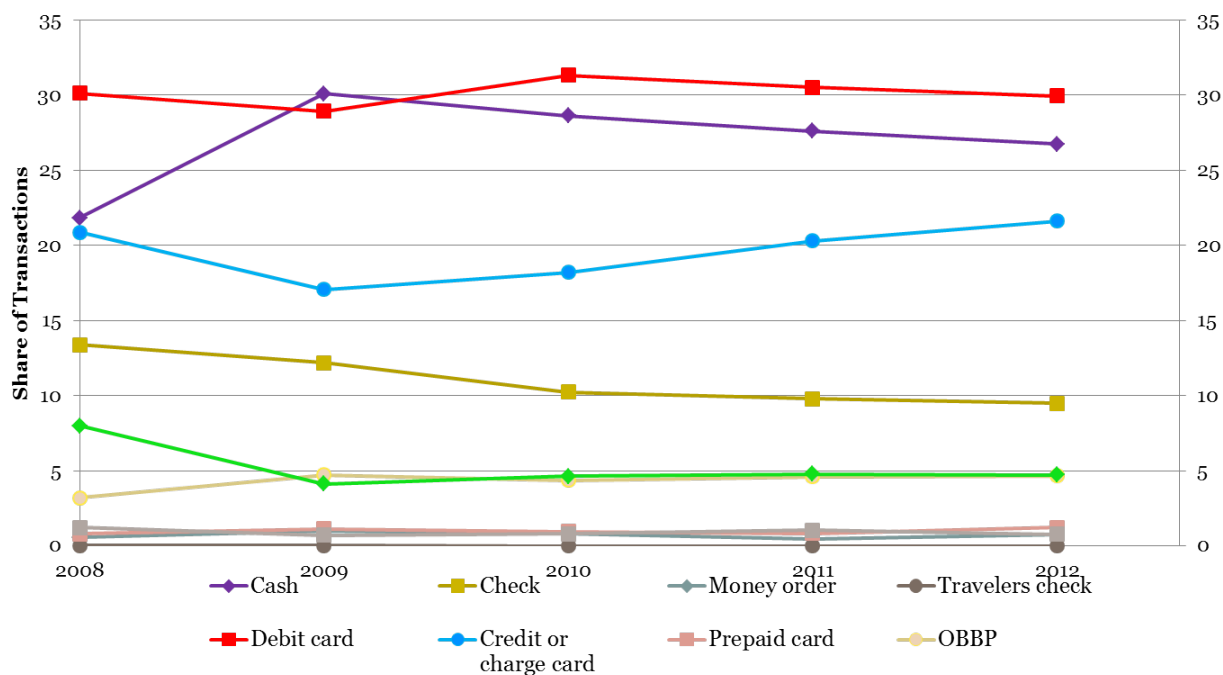


Figure 5b: Shares of consumer payments by instrument type, 2008–2012

Source: 2010, 2011–2012 Survey of Consumer Payment Choice.

Figure 5b shows the five-year trend in shares of consumer payments by payment type. The figure indicates an increase in credit card payments and a corresponding decline in the share of cash payments since 2009 and check payments throughout the survey period. Compared to earlier SCPC reports, having five years of data allows for a fairly clear picture of a longer time trend. Note that the small sample size in 2008—approximately 1,000 respondents, compared to more than 2,000 in each subsequent survey year—and changes in the questionnaire starting in 2009 might have caused some of the 2008–2009 changes observed in the data.

Payments by Source of Funding

In 2012, consumers settled more than three-fourths (78.4 percent) of their payments using short-term liquid assets, and the remainder (21.6 percent) with credit cards (SCPC Table 26b). The most common source of money used to fund payments was demand deposit accounts, which funded nearly half (48.8 percent) of all consumer payments. Cash funded another quarter (26.8 percent) of consumer payments and credit cards funded over one-fifth of all payments (21.6 percent).

IV. Consumer Adoption of Payment Instruments

This section reports 2012 estimates of consumer adoption of payment instruments measured three ways: 1) adoption rates of individual payment instruments; 2) number of payment instruments adopted by consumers; and 3) portfolios of payment instruments adopted by consumers.

Individual Instruments

Between 2010 and 2012, consumer adoption of OBBP increased significantly, as shown in Figure 6.²⁷ The share of consumers having OBBP increased by 7 percentage points. No other change in the rate of adoption of an individual payment method from 2010 to 2012 was statistically significant. The rate of adoption of payment cards—credit, debit and prepaid—rose somewhat from 2011 to 2012 and the change was weakly statistically significant (because the prepaid card adoption measurement changed in 2011, we cannot compare the rate of adoption in 2010 to the later years).

²⁷ The statistical hypothesis of no change in the adoption of OBBP by consumers in 2012 can be rejected at the 99 percent significance level.

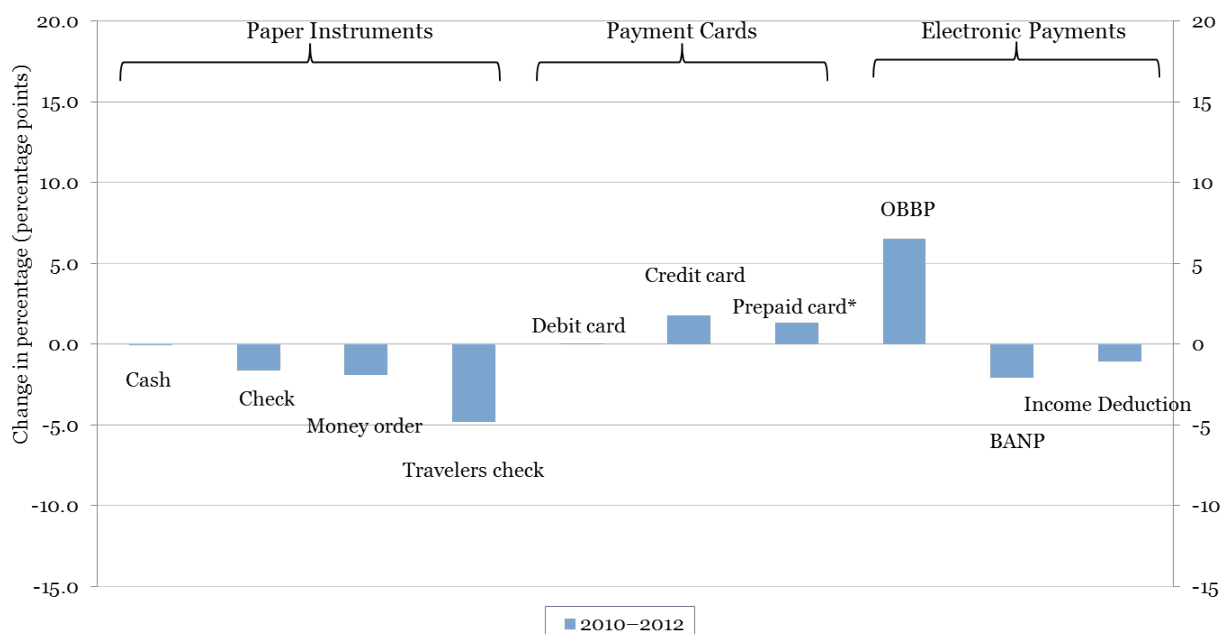


Figure 6: Changes in consumer adoption of payment instruments, 2010–2012

Source: 2011–2012 Survey of Consumer Payment Choice, Table 6.

Note: * Prepaid card adoption change is for 2011–2012 only, as the adoption question in 2010 is not comparable.

Figure 7 puts into perspective the recent changes in consumer holding of payment instruments by plotting adoption rates over time.²⁸ As of 2012, about two-thirds of consumers had adopted the five most popular payment instruments: cash (100 percent), checks (85.4 percent), debit cards (78.5 percent), credit cards (72.1 percent), and BANP (62.7 percent). Over half of consumers had adopted OBBP (55.3 percent) and prepaid cards (52.3 percent), and more than one in five consumers had adopted money orders (21.7 percent).

²⁸ Figure 7 combines SCPC data on consumer adoption of payment instruments with similar data for households from the Survey of Consumer Finances (SCF), where available and comparable, to provide a perspective on longer term trends. See <http://www.federalreserve.gov/econresdata/scf/scfindex.htm> for more details. Except for credit card spending, the SCF does not contain data on the use of payment instruments comparable to data from the SCPC.

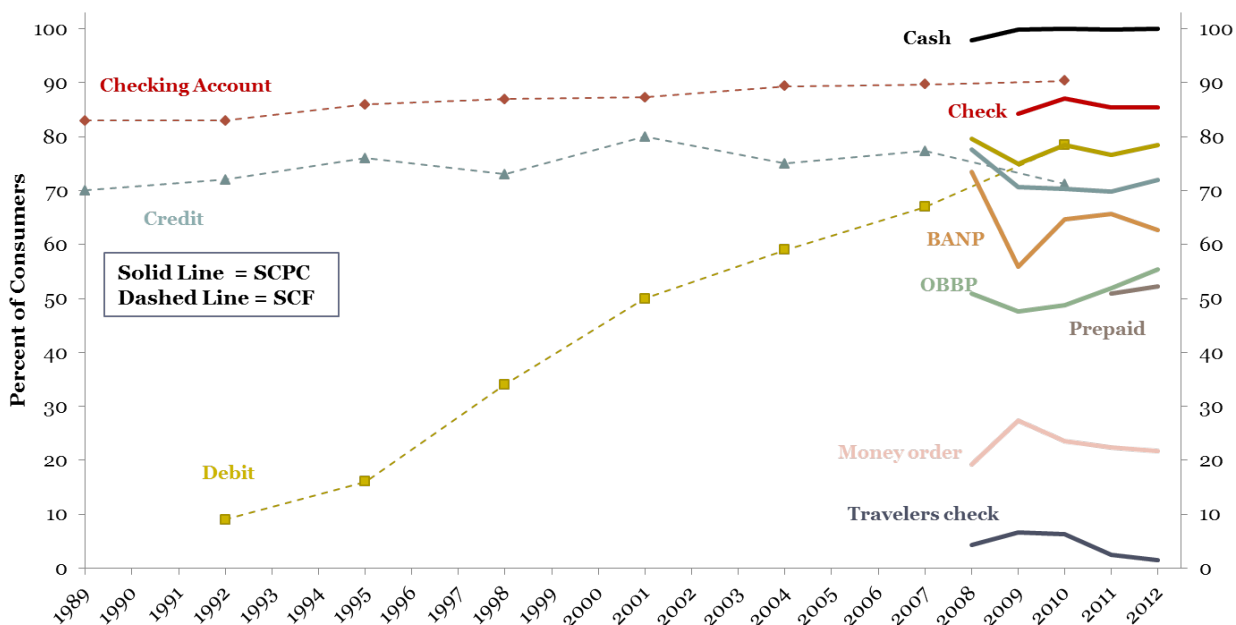


Figure 7: Consumer adoption of payment instruments, 1989–2012

Source: 2008–2012 Survey of Consumer Payment Choice; 1983–2010 Survey of Consumer Finances.

Most rates of consumer adoption of payment instruments generally appear to have been stabilizing during recent years. The shares of consumers holding cash, checks, and credit cards have been relatively high and steady for many years. After a long trend increase, the share of consumers with debit cards appears to be leveling off in the range of 75–80 percent.

Because the way we collect data on prepaid card adoption changed in 2011, we cannot compare the latest data with earlier results and therefore show only the 2011 and 2012 prepaid adoption rates. Section V explains how the prepaid part of the questionnaire changed from 2010 to 2012.

Actual transactions data from NACHA (The Electronic Payments Association) show a longer-run trend increase in total consumer electronic payments.²⁹ However, the OBBP and BANP definitions in the SCPC pertain only to certain subcategories of the NACHA consumer electronic payments data, making it difficult to match the two data sources exactly, as discussed in Section XII.

Portfolios of Instruments

In 2012, the number of payment instruments held by consumers was essentially unchanged, as shown in Figure 8. On average, consumers held 5.3 instruments of the nine common instruments tracked by the SCPC, an insignificant change from their holdings in 2010. From a smaller group of four payment instruments, including only a subset of BANP (automatic ACH bill payments), consumers held 3.0 on average as of 2012, the same number as in 2010 and 2011.³⁰ This is approximately twice as many as in 1989, reflecting a long-term trend increase in consumer holdings of payment instruments. However, average holdings in both the four-instrument set and the nine-instrument set appear to have grown more slowly in recent years.

²⁹ We thank NACHA CEO Janet Estep for bringing this issue to our attention. From 2008 to 2012, the NACHA estimate of total consumer electronic payments closest to the SCPC measure grew at the compounded growth rate of 4.7 percent per year in per capita terms.

³⁰ These four payment instruments—check, credit card, debit card and automatic ACH bill payments—were included in the Federal Reserve Board’s Survey of Consumer Finances (SCF). The 2013 SCF data were not available when this report was written.

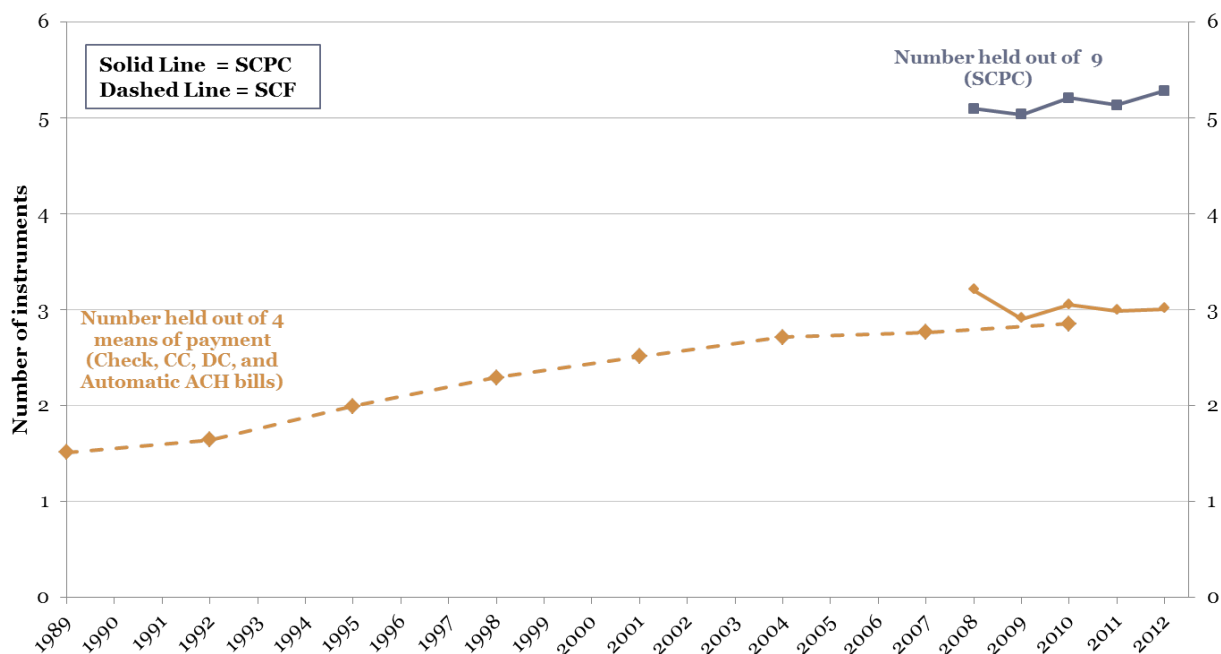


Figure 8: Average number of payment instruments adopted by consumers

Source: 2011–2012 Survey of Consumer Payment Choice, Table 12; 1989–2009 Survey of Consumer Finances.

Another way to view consumer adoption of payment instruments is to look at individual portfolios of instruments held by consumers, as shown in Figure 9. In 2012, the most common number of payment instrument types held by individual consumers was six (held by 28.4 percent of consumers). Somewhat fewer consumers had five instruments (22.5 percent), and another 30.6 percent of consumers had four or seven instruments. Only about one in six consumers (18.6 percent) held fewer than four or more than seven payment instruments.

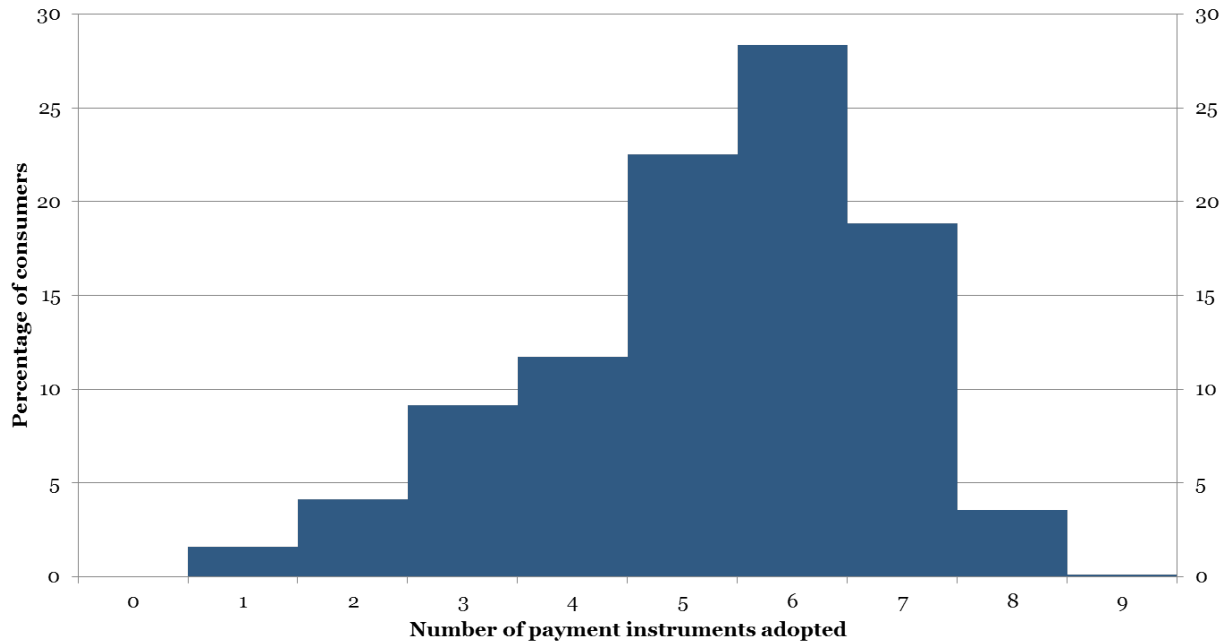


Figure 9: Number of payment instruments adopted by individual consumers, 2012

Source: 2012 Survey of Consumer Payment Choice, authors' calculations.

An even deeper look at individual portfolios of payment instrument reveals considerable variety, as Table 2 shows. The most common portfolio of seven instruments (two paper, three cards, and two electronic: cash and check, credit, debit and prepaid cards, and OBBP and BANP) was held by only 12.1 percent of all consumers and the top five portfolios account for less than 40 percent of consumers. Consumers held 92 unique combinations of payment instruments in 2012.

Number of PI	Cash	Check	Traveler's Check	Money Order	Credit Card	Debit Card	Prepaid Card	OBBP	BANP	Percent of Consumers
7	X	X			X	X	X	X	X	12.1
6	X	X			X	X		X	X	10.2
6	X	X			X	X	X		X	5.6
5	X	X			X	X			X	5.5
5	X	X			X	X		X		4.7

Table 2: Top 5 payment instrument portfolios adopted by individual consumers, 2012

Source: 2012 Survey of Consumer Payment Choice, authors' calculations.

Cash Management

Total per-capita domestic U.S. currency in circulation increased by 15.2 percent from 2010 to 2012. This estimate reflects total cash holdings by all domestic U.S. agents (households, firms, nonprofits, and government).³¹ For consumers only, the average amount of currency held rose from \$142 in 2010 to \$174 in 2012, as Figure 10 shows; these amounts exclude unusually large-value cash holdings.³² The two-year increase in consumer cash holdings is statistically significant. Note that dollar figures in this section are not adjusted for inflation during the two-year period from 2010 to 2012. During this time, the annual percentage change (Q4/Q4) in the consumer price index was about 2.6 percent.

Although the number of consumer cash payments declined from 2010 to 2012 (Figure 5a), cash holdings increased moderately (Figure 10). It is therefore not surprising that the average number and the average value of cash withdrawals increased somewhat as well. Consumers withdrew \$655 per month on average in 2012, a statistically significant increase from 2010, when they withdrew \$468 on average.

³¹ The estimate of domestic currency in circulation follows the methodology developed by the Board of Governors of the Federal Reserve System using Flow of Funds data (Federal Reserve Board 2013b). It excludes U.S. currency held in foreign countries.

³² Average cash holdings by consumers in Figure 10 exclude large-value holdings of currency (that is, holdings greater than the 95th percentile, which is approximately \$1,500). This exclusion is motivated by the fact that the SCPC obtains only a very small number of observations of very large cash holdings each year; hence, fluctuations in the composition of large-value cash holdings exert statistically excessive influence on estimates of the average value of total cash holdings. See Section 5.2, “Cash Values,” in the technical appendix for more information.

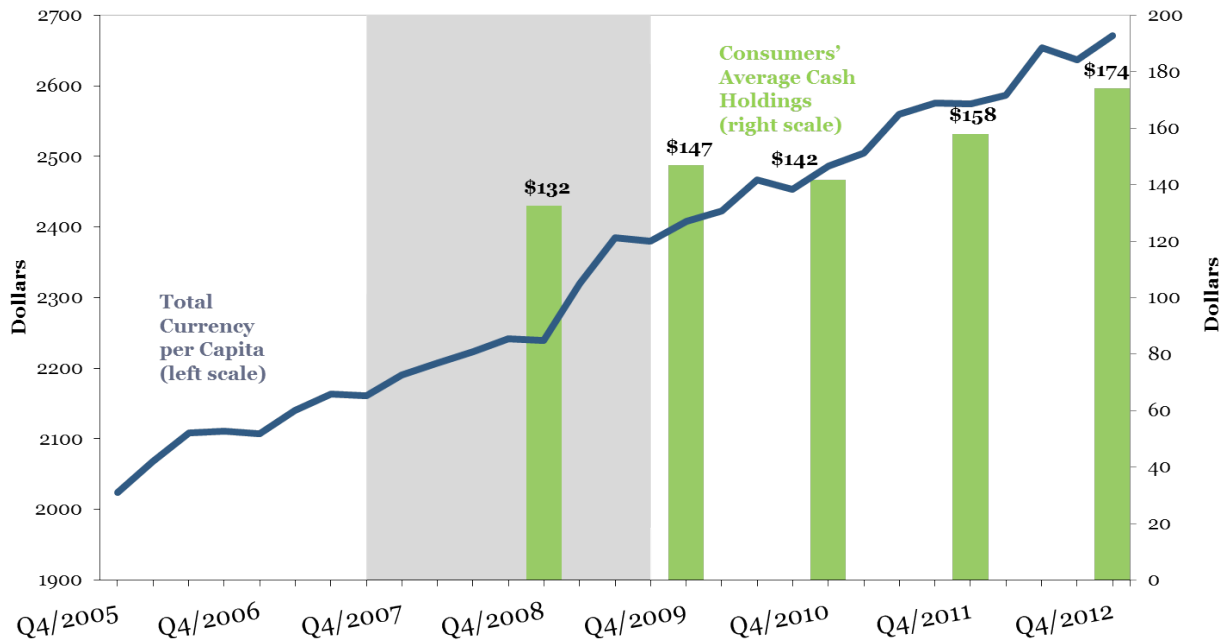


Figure 10: U.S. domestic currency in circulation, 2005–2012

Source: 2011–2012 Survey of Consumer Payment Choice, Table 13; Haver Analytics.

Figure 11 shows cash withdrawals by the amount of withdrawal made most often and the typical number of withdrawals per month.³³ The amount per withdrawal and the number of withdrawals are measured at two sources: 1) the location where the consumer gets cash most often, and 2) all other locations combined. In 2012, the typical amount of withdrawal at the most frequented location was \$138 and the typical amount at all other locations was \$58. Although both amounts were up from 2010, neither increase was statistically significant. Also in 2012, the number of withdrawals per month was 4.1 at the most frequent location and 2.3 at all other

³³ The number of withdrawals in a typical period follows the methodology for the number of payments. The amount of withdrawal made most often by a consumer may not be the same as the average amount of withdrawal by the consumer. Statistically, “most often” corresponds to the mode of a distribution rather than the mean. The SCPC asks for the most common amount to enhance consumer recall. If the mode and mean are not equal, this survey methodology choice produces bias in the SCPC estimate of total withdrawal amount in a month. The direction of bias depends on whether the mean is larger or smaller than the mode.

locations. Both estimates of the number of withdrawals increased significantly from their 2010 levels (which were 3.6 and 1.3 per month, respectively).

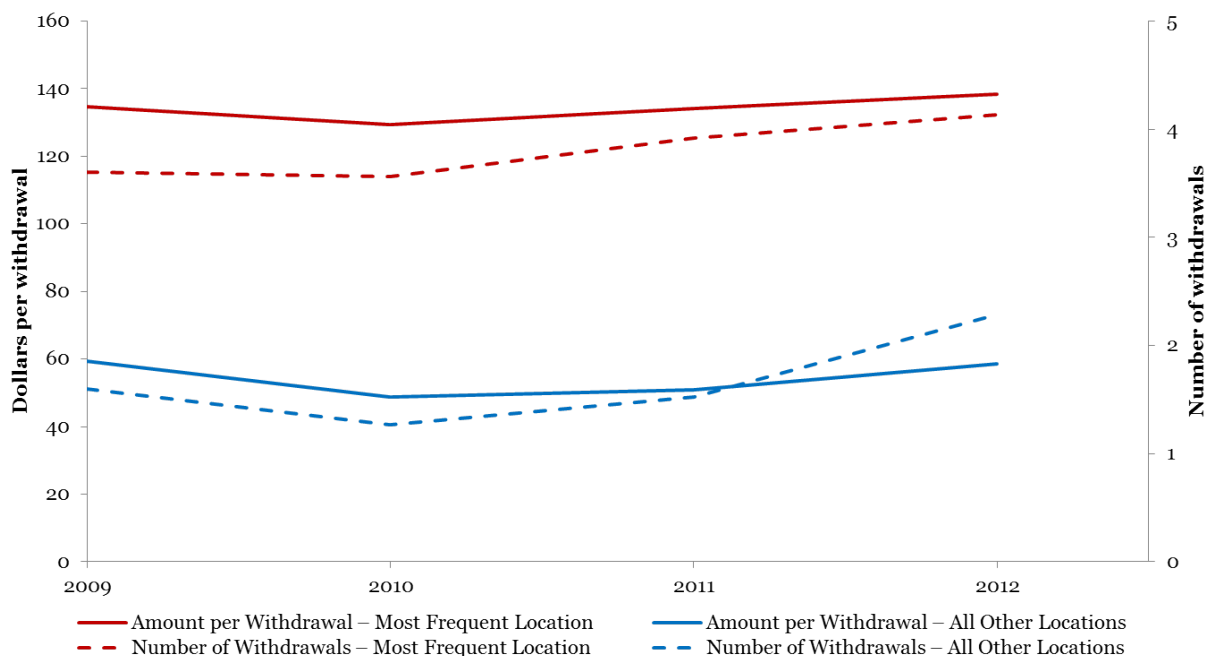


Figure 11: Amount and number of cash withdrawals by location per month, 2009–2012

Source: 2010, 2011–2012 Survey of Consumer Payment Choice.

Note: The left axis shows the amount of cash per withdrawal and the right axis shows the number of cash withdrawals per month per consumer.

V. Prepaid Cards

The SCPC questionnaire has been improved and expanded to better measure the adoption and use of prepaid cards, which have become more widespread since the inception of the SCPC in 2008.³⁴ This section provides a nontechnical summary of Hitczenko and Tai (2014), which contains a detailed analysis of survey methodology experiments and results associated with

³⁴ According to the Federal Reserve Payments Study (Federal Reserve System 2013), prepaid card payments increased at a rate of 15.8 percent annually from 2009 to 2012, faster than credit, debit, ACH, or check, reaching a total of 9.2 billion transactions in 2012.

questions about prepaid card adoption. Their primary finding is that it is necessary to include many detailed questions about prepaid cards to assist respondent recall and obtain more accurate estimates of adoption.

To separate the changes in prepaid card adoption in the population as a whole from the effect of changes in the questionnaire, we conducted an experiment in 2011, where the SCPC respondents were randomly divided into two equal samples, each receiving a different prepaid card adoption question. Half of the respondents were asked about prepaid card adoption using the same four categories of prepaid cards that were used in 2010 (left column in Table 3). The other half of the respondents were given a finer breakdown and were asked about prepaid card adoption using 12 categories (middle column in Table 3). The goal of the experiment was to test whether the finer detail on the question affected recall and the overall adoption rates. The 12-category breakdown was expected to generate a higher adoption rate than the four-category breakdown because a finer breakdown facilitates better recall, and because the 12-category breakdown listed some categories that respondents are most likely to forget otherwise, such as a phone card or a rebate card. The more detailed list also included prepaid card categories commonly used by consumers, such as “gift card” or “Direct Express” instead of the terminology more likely to be used by the industry, such as “general purpose cards” or “government issued cards.”³⁵

³⁵ Hitczenko and Tai (2014) did not find conclusive evidence on the importance of the order of categories, but did find that disaggregation of the categories significantly affects the adoption rates.

Table 3: Prepaid Card Categories in the 2011 and 2012 SCPC

2011 SCPC		2012 SCPC
<u>Four Categories</u> <u>(half of the sample)</u>	<u>12 Categories</u> <u>(half of the sample)</u>	<u>13 Categories</u> <u>(entire sample)</u>
1. General purpose 2. Specific Purpose 3. Employer issued 4. Government issued	1. Gift card from a store, merchant or website 2. General purpose prepaid card (has logo from Visa, MasterCard, Discover, or American Express) 3. Public transportation (subway, bus, train, or ferry) 4. Phone card 5. Direct Express 6. EBT (Electronic Benefit Transfer) 7. Payroll card (for wages or salary) 8. Incentive card (for bonus pay from your employer) 9. Benefit card (FSA, HRA, HSA, health care, day care). 10. Remittance card (for sending money overseas) 11. Merchant rebate card 12. Location specific card (for spending in shopping malls or university campus)	1. Gift card from a store, merchant, or website 2. General purpose prepaid card (include only cards not reported above) 3. Public transportation card 4. Phone card 5. Direct express 6. EBT, WIC, SNAP, or TANF 7. Payroll card (for wages or salary) 8. Employee incentive card (for bonus pay, awards, or recognition from your employer) 9. Benefit card (FSA, HRA, HSA, health care, day care) 10. Remittance card (for sending money overseas) 11. Rebate card from store, merchant, or website 12. Location specific card (for spending in shopping malls or university campus) 13. Other federal, state, or local government benefit card

The experiment revealed that rates of adoption differed significantly between the two subsamples, as shown in Figure 12. In 2011, the four-category adoption rate was 28.8 percent, while the 12-category adoption rate was 51.0 percent.³⁶ This result indicates that a finer breakdown with more categories facilitates respondents' recall and raises the estimated rate of adoption, indicating that the two sub-sample estimates are not comparable. Based on this result, the 2012 SCPC prepaid adoption question was very similar to the 12-category version in 2011, except that it included one more type of prepaid card (other government benefits) for a total of 13 categories, and the same question was given to the full sample of respondents. The last column in Table 3 lists the categories in the 2012 SCPC.

Figure 12 also shows two other results from ongoing improvements in the SCPC measure of prepaid card adoption. Based on the four-category breakdown, the rate of prepaid card adoption declined significantly from 38.2 percent in 2010 to 28.8 percent in 2011. Based on the more detailed categories, the adoption rate in 2012 (52.3 percent) did not change significantly from 2011 (because of the change in the number of categories, we cannot compare the 2010 and 2012 rates of adoption).³⁷ The 2010–2011 decline in four-category adoption rates is particularly puzzling and unexplained, even by randomized experiments conducted in a separate 2013 survey on prepaid cards (see Hitczenko and Tai 2014 for details). The figure also shows a much lower estimate of prepaid card adoption in 2008 (17.5 percent) obtained from a one-category question with likely poorer recall than the four-category version in 2009.

³⁶ These estimates are significantly different at the 99 percent level of confidence.

³⁷ Based on the four-category breakdown, the statistical hypothesis of no change in the rate of adoption of prepaid cards from 2009 to 2010, and from 2010 to 2011 can be rejected at the 99 percent significance level. However, based on the 12-category breakdown, the statistical hypothesis of no change in the rate of adoption of prepaid cards from 2011 to 2012 cannot be rejected.

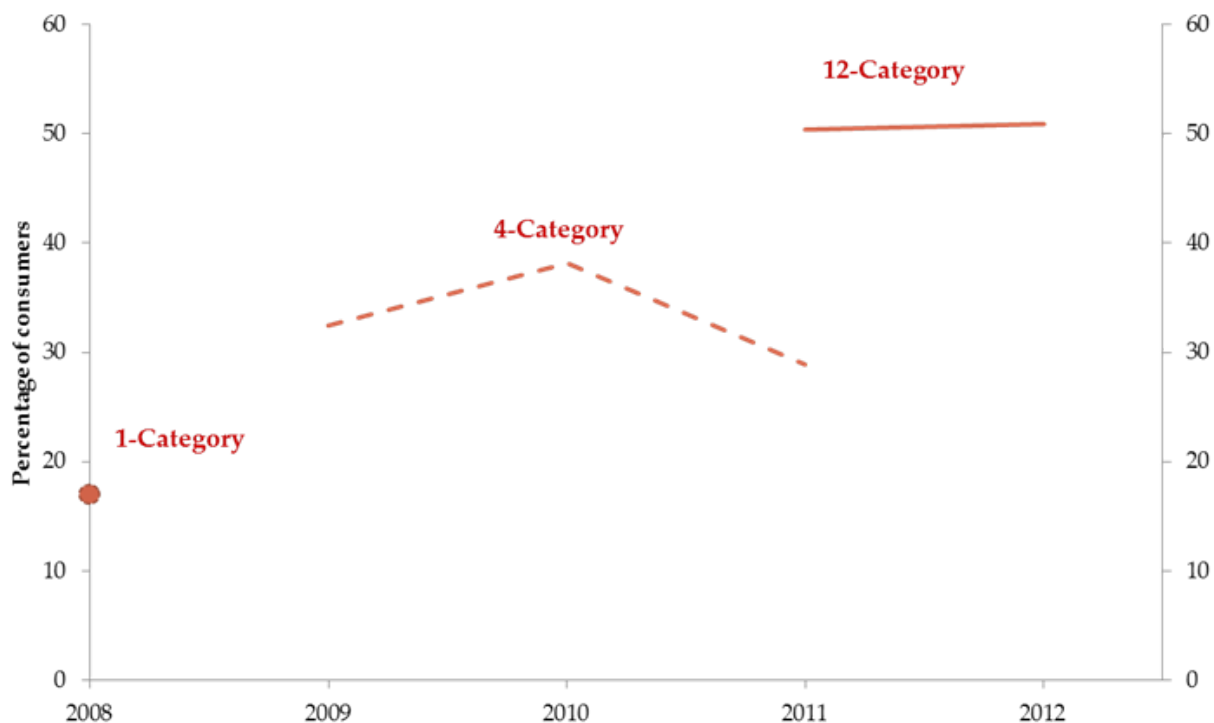


Figure 12: Prepaid card adoption rates.

Source: 2010, 2011–2012 Survey of Consumer Payment Choice.

The number of prepaid cards held per adopter and the percentage of adopters using prepaid cards did not change significantly from 2011 to 2012 (Table 4).³⁸ For some prepaid cards, consumers can “reload” the cards, meaning they can add value to the card using cash or another source of money or credit. The mean dollar amount loaded on prepaid cards increased to 216 per reloading in 2012, and the share of consumers reloading their cards increased to 11.8 percent.³⁹ The number of prepaid card reloadings per adopter was 1.4 per month in 2012, but the change from 2011 was not significant.

³⁸ The hypothesis of no change in the number of prepaid cards per adopter cannot be rejected at the 95 percent significance level. The hypothesis of no change in the share of prepaid card adopters using a prepaid card during the year cannot be rejected at the 95 percent significance level.

³⁹ The hypothesis of no change in these two measures can be rejected at the 95 percent level of significance.

	2011	2012
Number of prepaid cards per adopter	3.0	2.8
Number of prepaid card payments in a typical month per adopter	1.4	1.6
Percentage of adopters using prepaid card in a given year	29.6	30.4
Percentage of consumers reloading card in a given year	10.2	11.8
Dollar amount per reloading, reloaders only	116	216

Table 4: Consumer prepaid card activity

Source: 2011–2012 Survey of Consumer Payment Choice, Tables 11, 13, 21b, 27.

VI. Bank and Other Payment Accounts

Consumer ownership of bank and other payment accounts was essentially unchanged in 2012, as shown in Figure 13.⁴⁰ In 2012, the percentage of consumers with a deposit account (checking or saving) at a bank was 92.5 percent, up just 0.4 percentage point from 2011. Consumer ownership of checking accounts was 91.4, essentially unchanged compared to 2011 (91.5), and consumer ownership of saving accounts was 75.8 percent, an increase of 1.5 percentage points.

⁴⁰ None of the changes discussed in this section were statistically significant at the 95 percent significance level.

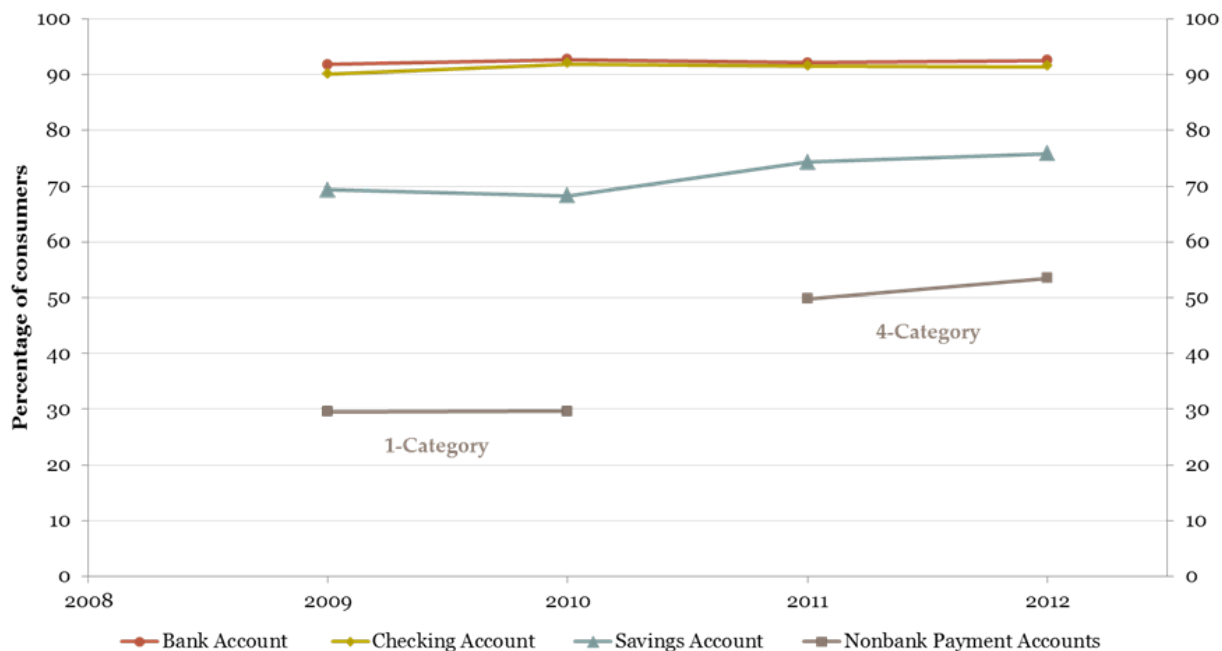


Figure 13: Consumer ownership of bank and other payment accounts, 2009–2012

Source: 2010, 2011–2012 Survey of Consumer Payment Choice, Table 1.

Some consumers own nonbank deposit accounts to make payments, including those held with PayPal, Google Wallet, Facebook, or other companies that are not depository institutions. In the 2010 SCPC, respondents were asked a single question on whether they had an online service provider (nonbank) account. The question included some examples of nonbank account providers. Starting in 2011, the survey included separate questions about specific nonbank account providers: PayPal, Amazon payments, Google checkout, or other.⁴¹

In 2011, the survey added a question about whether money was deposited in any non-bank online payment account. In 2012, respondents who had adopted a nonbank account were asked

⁴¹ Because the SCPC counts the number of payments initiated by consumers, it focuses on payment instruments rather than on the accounts, networks, platforms, or related technologies through which these payments occur. For example, the number of credit card payments made by consumers in a typical month (14.9 in 2012) may include some credit card payments made via PayPal. A similar issue arises for mobile payments.

how their nonbank accounts were funded. The adoption of nonbank accounts was 29.7 percent in 2010 and 49.8 percent in 2011. The adoption rate rose to 53.5 percent in 2012. We cannot determine whether the increase in the adoption rate was due to the change in the survey questions or to the increase in the population adoption rate, although it is likely that improved recall contributed to the higher rate of adoption.⁴² In Figure 13, the one-category and the four-category nonbank account adoption are plotted separately, similarly to the way we plotted prepaid card adoption above. The vast majority of the nonbank accounts were PayPal accounts: Among the nonbank payment providers, PayPal had the highest rate of adoption, with 45.4 percent of consumers holding a PayPal account in 2011 and 49.0 percent in 2012; Amazon Payments was second, with 17.1 percent and 14.4 percent, respectively.

The share of consumers accessing their bank account through one of five methods shown in Figure 14 was 89.2 percent in 2012.⁴³ Given that 92.5 percent of consumers have a bank account, the percentage of bank account adopters who accessed their account during the past year is 96.4 percent (89.2 percent divided by 92.5 percent). Compared with 2011, fewer consumers accessed their bank accounts in 2012 through ATMs (down 1.6 percentage points), while more accessed their bank accounts through online banking (up 3.6 percentage points). Changes in other methods of accessing bank and payment accounts were not statistically significant. For mobile banking, we show only the 2011 and 2012 data, as the data collected in earlier years cannot be compared due to changes in the mobile banking survey questions (see the mobile banking and payments section below). From 2011 to 2012, mobile banking adoption increased from 30 percent to 36 percent, and the incidence of use of mobile banking increased from 29 percent to 34 percent, both statistically significant.

⁴² See the prepaid card section above for a discussion on the effect of disaggregated survey questions on the rates of adoption.

⁴³ The statistical hypothesis of no change in the share accessing bank and payment accounts by consumers from 2011 to 2012 cannot be rejected.

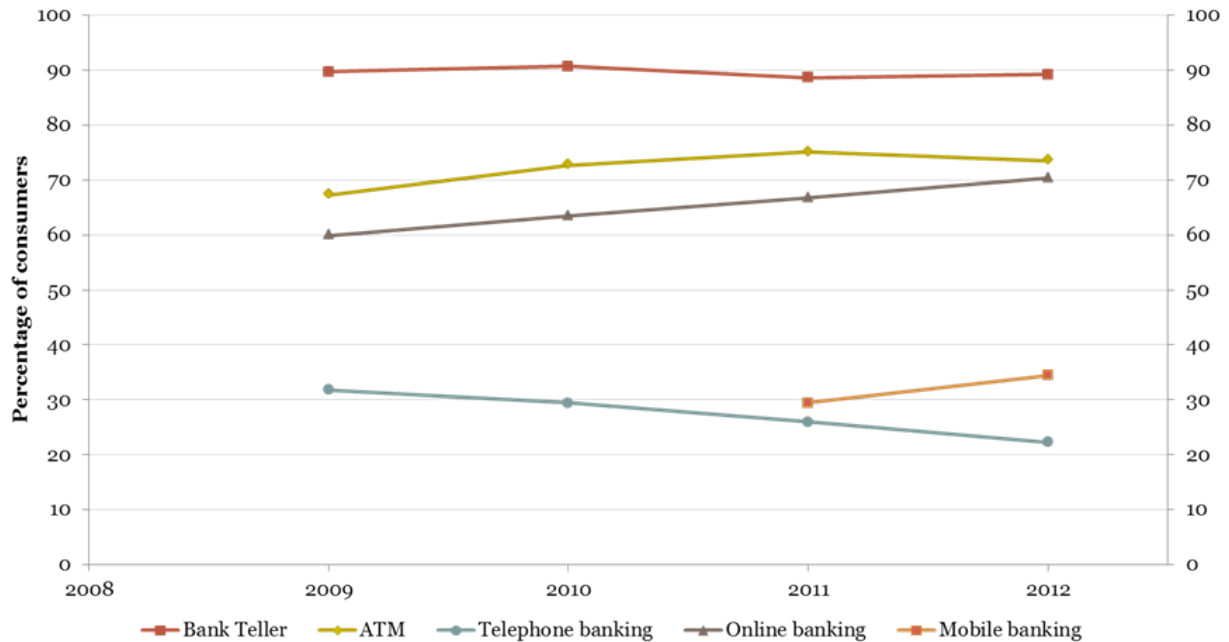


Figure 14: Consumer access to bank accounts

Source: 2010, 2011–2012 Survey of Consumer Payment Choice, Table 1.

VII. Remote Banking and Payments

The information technology revolution has made it increasingly easier to make payments and conduct other banking business remotely rather than at a bank branch or ATM. To track this remote banking activity, the SCPC collects data on information and communication technology (ICT) and remote banking and payments. This section describes these results.

Online Banking

Since the introduction of the internet, consumers have had increasingly good access to online banking services, including the ability to pay bills (OBBP). At first, the internet was only available through desktop computers. However, as time and technology progressed, online banking access became mobile through laptops, cell phones, and intermediate ICT devices such as tablets. Part of consumer payment choice involves choosing one of the growing number of options for accessing bank accounts online.

Beginning in 2011, the SCPC began tracking consumer access to online banking by technology platform. In 2012, 70.3 percent of consumers used online banking, and nearly all of them (68.3 percent of consumers) accessed online banking with a computer (including a laptop). Only 21.2 percent of consumers accessed online banking using a mobile phone, and still fewer (24.3 percent) did so using other internet connected devices.

Mobile Banking and Mobile Payments

To understand mobile banking and payments, it is first necessary to measure the extent to which consumers own cell phones and smartphones necessary to perform these tasks. As of the fourth quarter of 2012, 94.8 percent of consumers had a mobile phone. Importantly, the emergence of “smart phone” technology has made it much easier for consumers to use the internet, and 52.7 percent of consumers had a smart phone in 2012.

As noted earlier in Figure 14, consumers appear to be switching away from telephone banking—the practice of making a voice call to a bank to conduct banking business—to banking by mobile phone, which can be done by voice call, by the internet on the phone’s web browser, or by using a downloadable app for mobile banking. Because these options for both mobile banking and mobile payments are becoming more complex as the technology evolves, the SCPC must add more detailed survey questions to accurately measure their adoption and use.

In the 2010 SCPC, respondents were asked whether or not they had set up access to *mobile banking* and whether or not they had used mobile banking in the past 12 months. In 2011 and 2012, in addition to asking about setting up access to mobile banking, the incidence of use of mobile banking was divided into specific activities. Respondents were asked separate questions on whether they had performed any of the following types of mobile banking using their mobile phone in the last 12 months: install a mobile bank app, check account balance or recent transactions, pay a bill, receive a text message alert from a bank, or transfer money between accounts. Table 5 shows the evolution of SCPC questions about mobile banking. As the prepaid

discussion above shows, more detailed questions help respondent recall and yield a higher rate of adoption.

Table 5: Mobile *banking* questions in the SCPC: 2008–2012

	2008	2009	2010	2011	2012
Asks about mobile banking “for your cell phone” without defining it	✓				
Defines mobile banking as “accessing your bank’s web page through the web browser on your mobile device, via text messaging or SMS, or by using a downloadable application on your mobile device.”		✓	✓	✓	✓
Asks, “Have you ever used the mobile banking feature of your bank account to pay a bill?”			✓		
Asks, “Do you currently have your bank’s mobile banking app installed on your mobile phone?”				✓	✓
Asks, “If no, have you ever downloaded your bank’s mobile banking app on your cell phone?”				✓	✓
Asks, “Using your mobile phone have you done any of the following in the past 12 months?					
...Check balance or check recent transactions				✓	✓
...Pay a bill				✓	✓
...Receive a text message alert from your bank				✓	✓
...Transfer money between 2 accounts				✓	✓

In 2010, the SCPC measured only two types of *mobile payments*: text/SMS and contactless mobile payments.⁴⁴ In the 2011 and 2012 SCPC, the definition of mobile payments was expanded from the 2010 version and included separate questions on each of the following types of mobile payments: text/SMS, contactless, scanned a barcode, used mobile phone’s web browser, used a mobile app, or swiped a card in a device attached to mobile phone. Table 6 shows the evolution of SCPC questions about mobile payments.

⁴⁴ See Crowe, Rysman, and Stavins (2010) for an analysis of mobile payments that focuses on contactless payments using NFC technology. Mobile payments by bar code or QR code can be made using LevelUp, for example, and are addressed specifically in the 2011 SCPC and beyond.

Table 6: Mobile *payments* questions in the SCPC: 2008–2012

	2008	2009	2010	2011	2012
Payment made using text message		✓	✓	✓	✓
Contactless payment via tapping or waving your phone		✓	✓	✓	✓
Used your phone to scan a barcode to make a payment			✓	✓	✓
Scanned a QR code					✓
Used your mobile phone’s web browser to make a mobile payment				✓	✓
Used a downloadable app to make a mobile payment				✓	✓
Swiped a credit, debit, or prepaid card in a device attached to the mobile phone					✓

Because the SCPC focuses on counting the number of consumer payments, the definitions of mobile banking and mobile payments inherently overlap. For example, consumers who access their online banking web site using a web browser or app (a method of mobile banking) and then pay a bill with OBBP (a type of mobile payment) have performed both mobile activities simultaneously from the perspective of the SCPC.

Compared to earlier years, mobile banking and mobile payments became much more common among consumers in 2012, as Figure 15 shows. However, because of the change in the way both mobile banking and mobile payments are defined in the SCPC, we have to analyze separately the data based on the old definitions and the new definitions, rather than compute their rates of annual increase. The rate of adoption of mobile banking increased from 30.2 percent in 2011 to 35.8 percent in 2012. By comparison, the Federal Reserve Board’s Survey of Consumers’ Use of Mobile Financial Services finds that as of December 2012, 28 percent of all mobile phone users had used mobile banking in the previous 12 months (Federal Reserve Board 2013a). The Board’s survey uses a single mobile banking question: “Mobile banking can be done either by accessing your bank’s web page through the web browser on your mobile phone, via text messaging, or by using an application downloaded to your mobile phone.” That question is almost identical to the one used in the 2010 SCPC. However, the 2011 and 2012 SCPC ask separate questions about the various functions performed by using mobile banking (see Table 5). Some of the difference in the estimates of adoption of mobile banking between the two surveys is likely caused by the

differences in survey questions. The Federal Reserve Board’s 2013 estimate of mobile banking adoption was over 33 percent (Federal Reserve Board 2014).

In the SCPC, the most common form of mobile banking in 2012 was checking the user’s account balance or recent transactions, with 30 percent of consumers stating that they had done it during the previous 12 months. The percentage of consumers who have used any form of mobile payments increased to 18 percent in 2012, although the mobile payment questions were revised substantially compared to the 2010 survey.⁴⁵ The percentage of consumers who made a text/SMS mobile payment was 2.8 percent in 2012, but the percentage of consumers who made a contactless mobile payment in 2012 was only 1.0 percent. The small changes in both of these mobile payment estimates from 2011 are not statistically significant.

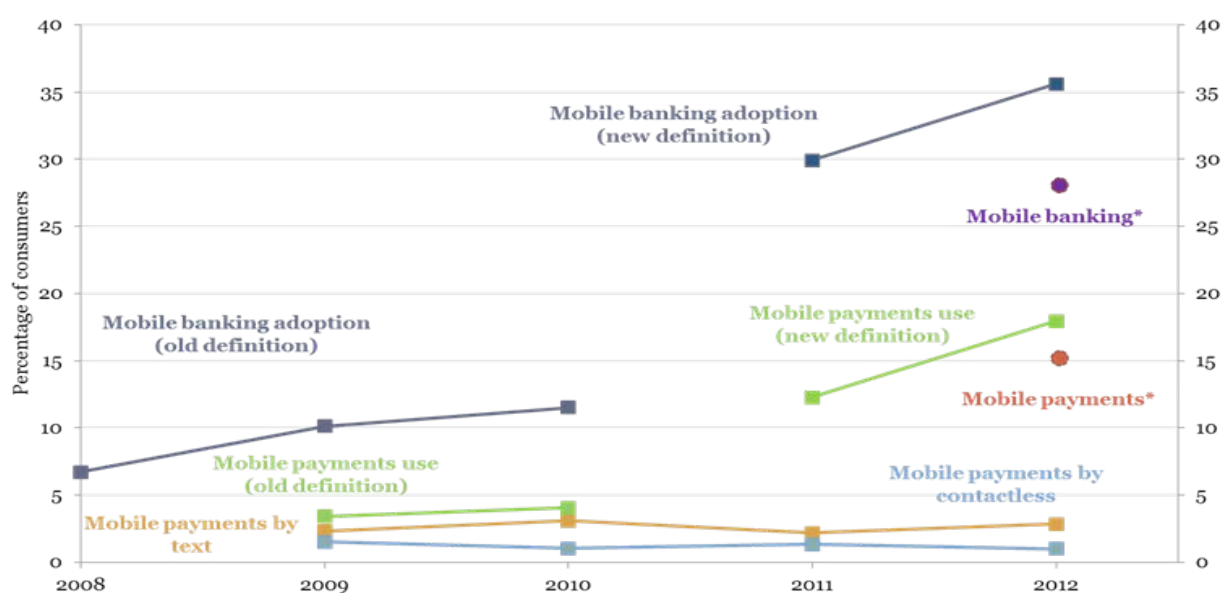


Figure 15: Mobile banking and payments

Source: 2010, 2011–2012 Survey of Consumer Payment Choice, Tables 1 and 19.

* The Federal Reserve Board’s Survey of Consumers’ Use of Mobile Financial Services (Federal Reserve Board 2013a).

⁴⁵ The Federal Reserve Board’s Survey of Consumers’ Use of Mobile Financial Services found that 15 percent of mobile phone owners made a mobile payment in the past 12 months in 2012 (Federal Reserve Board 2013a).

VIII. Debit Card Authorization

Section 1075 of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, “Reasonable Fees and Rules for Payment Card Transactions,” contains amendments to the Electronic Funds Act that affected payment markets in important ways.⁴⁶ This section of the law eventually became Regulation II, written by the Board of Governors of the Federal Reserve, approved in July 2011, and implemented on October 1, 2011. Most of the debate over Reg II focused on two changes: 1) capping the debit card interchange fee charged by banks at a level below the prevailing market rate at that time; and 2) requiring debit card issuers to offer at least two networks for the merchant to route debit card payments. The 2010 SCPC included for the first time questions about consumer attitudes toward debit card authorization methods to help assess the potential impact of Reg II on consumer behavior. Reg II did not affect consumers directly, but consumers’ debit card behavior may have been affected indirectly by Reg II because of differences in consumer attitudes toward authorization methods and changes in merchant acceptance practices. The question was also included in the 2011 and 2012 SCPC, so that we could assess whether consumers’ attitudes towards debit card authorization changed between 2011 and 2012.

In 2011 and in 2012, consumers continued to prefer PIN debit card payments over other methods of debit card authorization. The percentage of consumers who prefer PIN debit authorization increased from 45.9 in 2010 to 52.7 in 2011 and 53.6 in 2012. The change from 2010 to 2012 is statistically significant, but the change from 2011 to 2012 is not statistically significant, indicating that as of the end of 2012, consumer preferences related to debit card authorization had not changed since the implementation of Reg II in October 2011. Figure 16 shows

⁴⁶ Originally, this section was called the “Durbin Amendment” because it was introduced by Senator Richard Durbin (D-Illinois) shortly before the Dodd-Frank Act was approved. The entire law can be found online at <http://www.gpo.gov/fdsys/pkg/PLAW-111publ203/html/PLAW-111publ203.htm>.

consumers' first choice from among four methods to authorize debit card payments: 1) entering a personal identification number (PIN); 2) signing the card-holder's name (signature); 3) indifference between PIN and signature (either); and 4) neither entering a PIN nor signing.⁴⁷ Over half of consumers preferred PIN debit authorization and nearly one-fourth (23.5 percent) preferred signature debit authorization. The remaining consumers were either indifferent or did not like either entering a PIN or providing a signature (the "neither" category was excluded from the 2012 SCPC questionnaire). As in previous years, consumers assessed PIN debit as more secure than signature debit, and both were considered more secure than no PIN/no signature debit (Figure 17; for more details on consumers' assessments of security by debit card authorization, see Stavins 2013).

⁴⁷ Signature authorization is sometimes called "credit" but is actually still a debit card payment that uses a credit card network such as Visa or MasterCard. The fourth category, neither PIN nor signature, includes at least two other methods: 1) using the debit card number and CVC code, usually online or in other situations where the consumer is not physically present (card-not-present, or CNP); 2) neither signature nor card number and CVC code is available, usually when the transaction is for a sufficiently small dollar value.

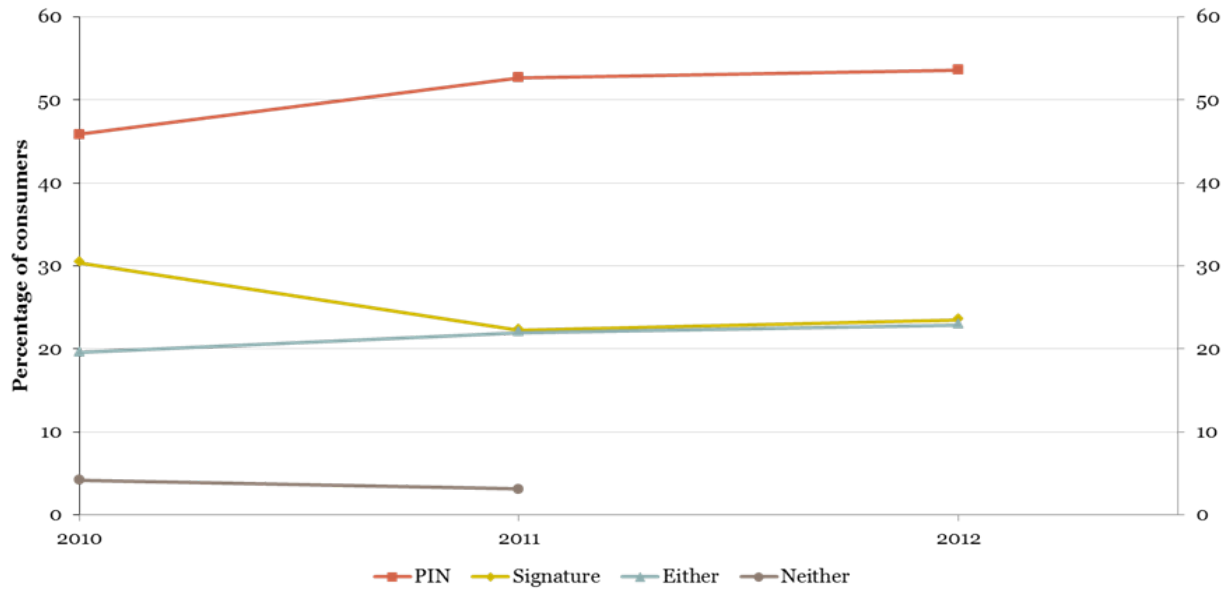


Figure 16: Consumer preferences for authorizing a debit card payment, 2010–2012

Source: 2011–2012 Survey of Consumer Payment Choice, Table 35i

Note: Numbers may not sum exactly due to rounding or missing values.

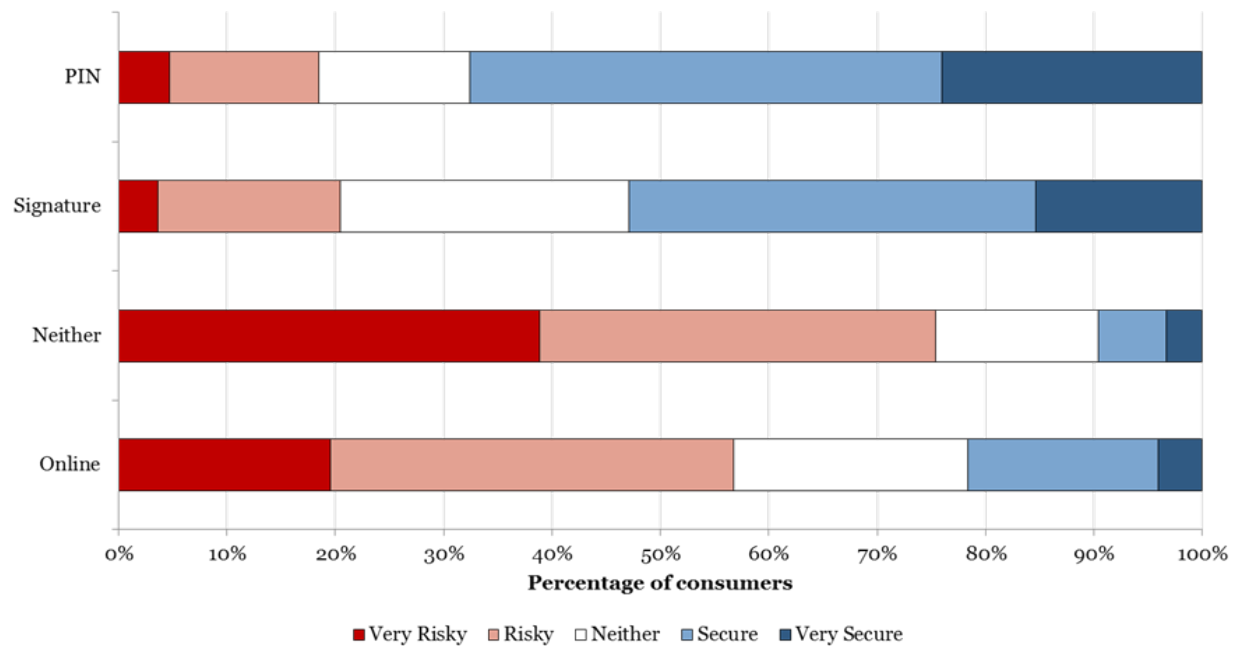


Figure 17: Consumers' assessment of security by type of debit card authorization, 2012

Source: 2011–2012 Survey of Consumer Payment Choice, Table 35h.

IX. Payment Security by Payment Instrument and Location

Since 2008, the SCPC has included questions about consumers' assessments of the characteristics of payment instruments (see 2012 SCPC Tables 34 through 35i). One of these characteristics is the "security" of the payment instrument in terms of the potential loss of money or personal information when the instrument is lost or stolen.⁴⁸ A key objective of the new Federal Reserve strategic plan for payments is to improve the security of the payments system.

In every SCPC survey from 2008 to 2012, security was ranked as the most important characteristic of payment instruments. Research shows that most consumer assessments of characteristics are correlated with consumer adoption and use of payment instruments.⁴⁹ In addition to consumers' rating of security as most important, several studies found security and identity theft important for payments adoption and use (see Stavins 2013 and Kahn and Liñares-Zegarra 2013). Consumer assessments of security of payment instruments have increased somewhat over time from 2010 to 2012 (see Figure 18), and the changes are statistically significant for every payment instrument except cash.⁵⁰

⁴⁸ The questionnaire asks: "Suppose a payment method has been stolen, misused, or accessed without the owner's permission. Please rate the security of each method against permanent financial loss or unwanted disclosure of personal information."

⁴⁹ For examples, see Schuh and Stavins (2010, 2013) and Koulayev, Rysman, Schuh, and Stavins (2012).

⁵⁰ The hypothesis that security rating did not change from 2010 to 2012 can be rejected at the 90 percent significance level.

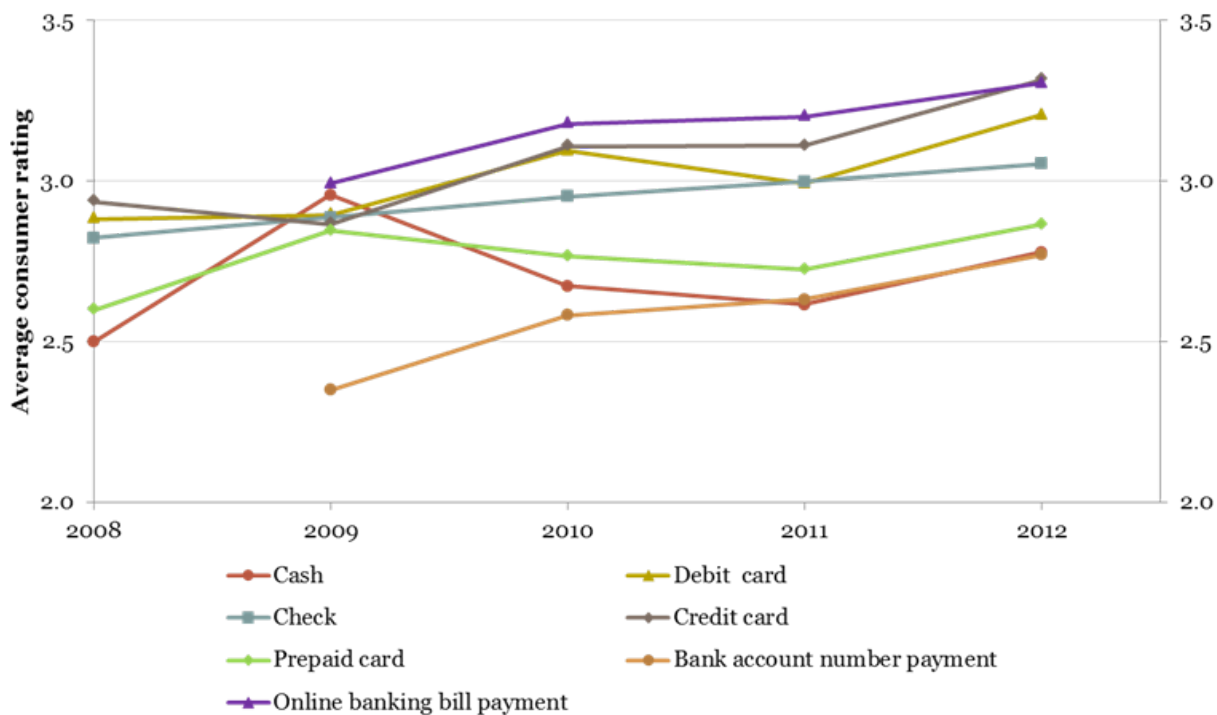


Figure 18: Average rating of security of payment instruments, 2008–2012

A complicating factor is that consumers may vary their assessments of the security of a payment instrument depending on how the transaction is conducted. For example, a consumer might rate the security of using a credit card at a point of sale differently from the security of inserting a credit card number in an online transaction conducted on his personal computer, which might be different from the security of giving a credit card number over the phone. Thus, the characteristic ratings may implicitly reflect a consumer's payment patterns, meaning where he or she most often uses a particular payment instrument. To address these differences, the 2012 SCPC expanded the list of possible payment locations in the security of payment location question. As in the previous versions of the survey, subjects were asked to rate security by location of payment on a 1-to-5 scale from "very risky" to "very secure."

As in the past, consumers viewed payments made in person as the most secure by far, as shown in Figure 19. Nearly 90 percent of consumers thought payments made in person were either secure or very secure. No other location was rated as so secure. About half of consumers view

payments made for internet transactions conducted on a computer, by mail, or by landline telephone as secure or very secure. Finally, consumers tend to rate newer technologies as less secure than older, more familiar ones: almost 60 percent of consumers rate mobile text message payments as risky or very risky.⁵¹ Consumers view payments made by phone on a computer, tablet, and mobile phone as riskier than those made by a landline phone. Similarly, consumers view internet payments on a tablet or mobile phone as riskier than those on a computer.

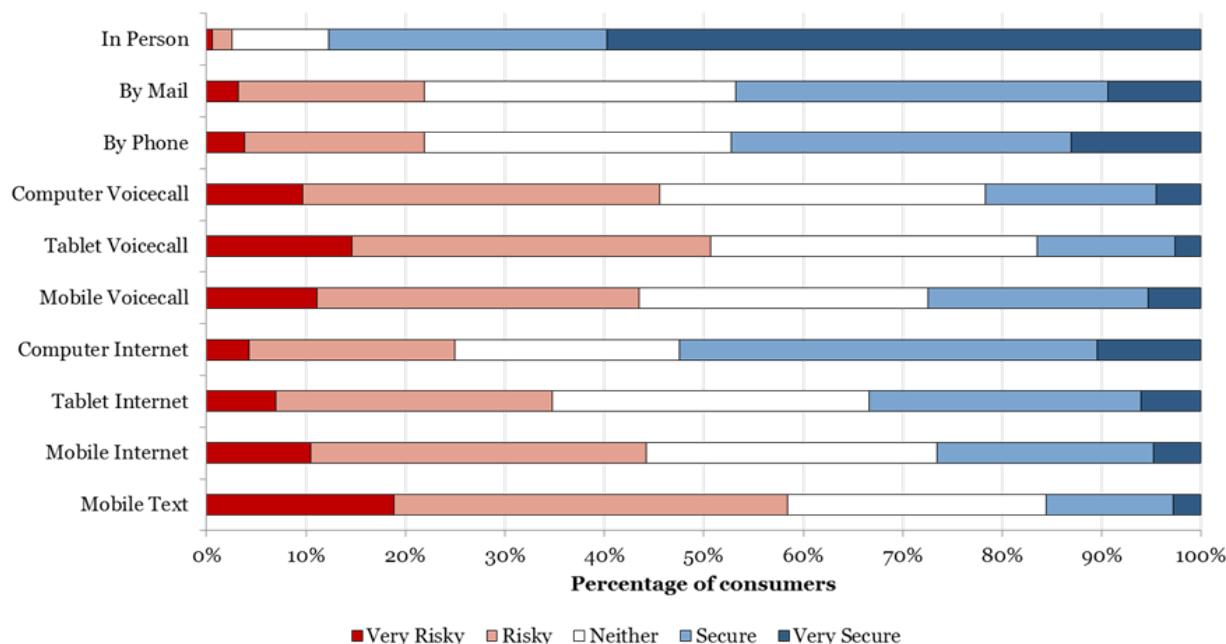


Figure 19: Consumer assessments of security by payment location, 2012

Source: 2011–2012 Survey of Consumer Payment Choice, Table 35g.

Notes: By phone refers to payments made by conversation over a phone. By mobile refers to a payment made using the online or text capabilities of a cell phone.

⁵¹ See Accenture (2013) for more recent corroborating evidence on consumer concerns about mobile security.

X. Loss, Theft, and Fraud

The 2011 and 2012 SCPC continued collecting information about loss, theft, or fraudulent use of payment instruments (2012 SCPC Table 33). In addition to questions about the amount of fraudulent charges, in 2012 the survey included a new question about fraudulent charges for which the respondent was liable. The question was asked only if a respondent had experienced fraud in the past 12 months. The vast majority of the respondents stated that they had no liability for fraudulent charges.⁵²

The fraction of consumers reporting loss or theft of one or more of the four most common payment instruments within the past 12 months increased from 13.3 percent in 2010 to 15.6 percent in 2012, not a significant change. Figure 20 shows that among the four common instruments, adopting consumers were least likely to have had security problems with checks (1.2 percent of check adopters) and most likely to have had security problems with cash (9.1 percent of adopters). The fractions of debit card and credit card adopters experiencing security problems within the past 12 months were 7.8 and 5.7 percent, respectively.⁵³ The SCPC tables also show the dollar amounts lost or stolen, but these amounts are based on a very small number of respondents, and so we do not discuss them here.

⁵² Respondents were asked to report loss and theft together, rather than separately, because it may be difficult to separate the two incidents accurately and consistently across incidents and survey respondents.

⁵³ The difference between the percentage of credit card adopters and debit card adopters who were victims of loss, theft, or fraud is statistically significant at the 99 percent significance level.

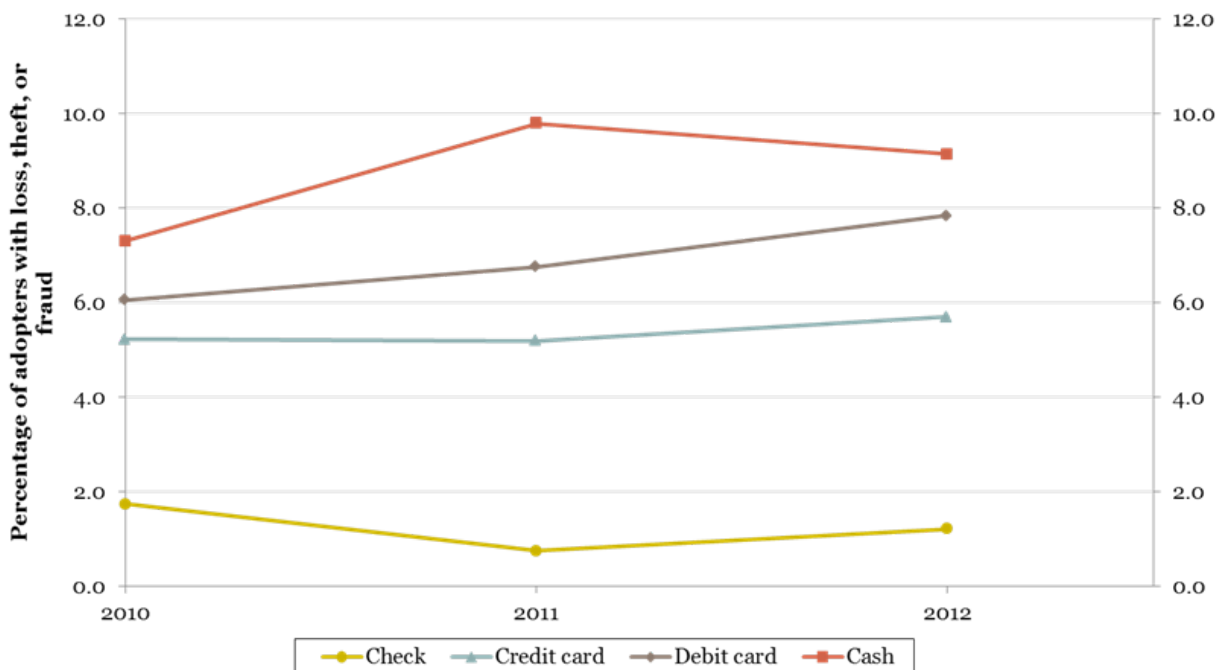


Figure 20: Share of adopters who experienced loss, theft, or fraud by payment instrument, 2012

Source: 2011–2012 Survey of Consumer Payment Choice, Table 33.

Note: The share of consumers who had adopted the payment instrument and lost it or had it stolen in the past 12 months.

XI. Federal Reserve Payments Study

The Federal Reserve Payments Study (FRPS) collects data on the total number of payments in the United States. As was done previously, the most recent FRPS data (Federal Reserve System 2013) separate payments by payor. However, at the time this report was written, the final data on the number of payments made by consumers had not yet been released. Because the FRPS consumer payments data were not yet available, we could not compare the number of consumer payments in the 2012 SCPC to the number of consumer payments in the FRPS. We will compare the number of consumer payments across the two data sources when the final FRPS estimates of consumer payments data become available.

In the meantime, we can compare the annual growth rate of payments made with each payment instrument in the SCPC to the equivalent number in the FRPS. Table 7 shows the annual growth rates based on the two data sources. Note that the SCPC data are for consumers only and the FRPS data are for all payments. A discrepancy between the two sources could indicate that nonconsumer payments grow at a faster or slower rate than consumer payments, but could also be caused by differences in the data collection methodology. Because the FRPS does not collect data on cash, we could not compare the number of cash transactions.

	FRPS			SCPC		
	(All payments) ^[a]			(Consumer Payments) ^[b]		
			Growth			Growth
	Number		Rate ^[c]	Number		Rate ^[c]
	2009	2012		2009	2012	
Cash	na	na	na	238.9	221.2	-2.5
Total Non-Cash	476.5	522.2	3.1	555.0	605.5	2.9
Checks (paid)	108.0	78.1	-10.3	96.7	78.6	-6.7
Credit	92.6	111.8	6.5	135.6	178.8	9.7
Debit	165.3	200.5	6.6	229.6	247.5	2.5
Prepaid ^[d]	26.0	39.3	14.7	9.0	10.2	4.2
ACH ^[e]	84.2	92.6	3.2	70.4	77.7	3.3

Table 7: Federal Reserve Payments Study and SCPC, number of transactions by payment instrument per person, 2009–2012

Source: 2013 FRPS Exhibit 4, 2012 SCPC.

Notes:

[a] FRPS reports all transactions, including transactions by consumers and by businesses.

[b] SCPC reports number of transactions by consumers in a typical month. Annual SCPC numbers are calculated by multiplying the number of transactions in a typical month by 12.

[c] Growth Rate is compound annual rate of growth.

[d] Prepaid card adoption for SCPC in 2009 was based on a four-category breakdown, while in 2012 it was based on a 13-category breakdown. Prepaid in the Federal Reserve Payment Study includes private label and general purpose cards.

[e] ACH numbers for SCPC are calculated as BANP+OBPP.

XII. Survey Methodology and Data

Most of the survey methodology for the 2011 and 2012 SCPC is the same or very similar to that for the 2010 SCPC, as documented in Foster, Schuh, and Zhang (2013). Table 8 summarizes the key features of the 2008–2012 SCPC. In 2011 and 2012, the size, composition, and timing of the sample were about the same as in 2010. The 2011 and 2012 surveys were administered online to members of the ALP who were selected to maximize the number of longitudinal panelists. Median survey completion time increased to 35–38 minutes as the content of the survey grew. ALP members who participated in the SCPC tended to rate the survey favorably again.

	2008	2009	2010	2011	2012
Primary months (% of completed responses)	Sept–Oct (100%)	Nov–Jan* (98%)	Sept–Nov (97%)	Sept–Nov (100%)	Sept–Nov (99%)
Number of respondents	1,010	2,173	2,102	2,151	2,065
2008–2012 panelists	615	615	615	615	615
2008–2011 panelists	679	679	679	679	—
2009–2012 panelists	—	1,515	1,515	1,515	1,515
2008–2010 panelists	788	788	788	—	—
2009–2011 panelists	—	1,657	1,657	1,657	—
2010–2012 panelists	—	—	1,631	1,631	1,631
2008–2009 panelists	876	876	—	—	—
2009–2010 panelists	—	1,913	1,913	—	—
2010–2011 panelists	—	—	1,801	1,801	—
2011–2012 panelists	—	—	—	1,926	1,926
Median completion time in minutes	36.5	30.1	33.2	34.6	37.7
Favorability rating (1 to 5 scale; 1 = “Very interesting”)	2.1	1.9	1.9	1.9	1.9

Table 8: Summary of the Survey of Consumer Payment Choice, 2008–2012

Source: Authors’ tabulations.

Notes: Asterisk (*) indicates January 2010.

Overall, implementation of the 2011 and 2012 SCPC was successful in terms of participation and response rates, as in prior years. For more information and analysis of the survey methodology

and issues discussed in the rest of this section, see the technical appendix by Angrisani, Foster, and Hitczenko (2014).

Questionnaire Changes

The CPRC is working continually to improve the definitions and measurement of the concepts appearing in the SCPC. Although these innovations and improvements make it more difficult to compare survey results across years, the quality gains are valuable and a necessary part of the early stages of a survey about a new and changing field of study such as consumer payment choice. Also, the number and magnitude of changes in the survey methodology is declining over time.

In 2011 and 2012, the SCPC questionnaire continued to have fewer changes from the previous year's survey, except for the topics discussed above. Important revisions were made to the details and definitions related to prepaid cards, mobile banking, and mobile payments, and additional questions about loss, theft, and fraud were added.

Data Issues

The SCPC results in the official tables of this report reflect several features about data transformations that readers and data users should keep in mind:

- *Seasonal adjustment* – No seasonal adjustment has been made to the data yet. As Table 8 shows, the calendar period of implementation of the 2008–2012 surveys differs slightly from survey to survey every year, especially at the individual respondent level. If there are important monthly seasonal differences in consumer payment behavior, this varied survey timing may affect the comparability of the SCPC results across years, especially with respect to growth rates or changes. Consequently, the reported changes and growth rates for the aggregate SCPC data may be revised after seasonal adjustment. However, the survey asks about payments made in a typical month. The CPRC is continuing to study this issue.

- *Inflation adjustment* – All dollar value responses are measured in current values; no adjustment for inflation has been made yet. SCPC data in real (inflation-adjusted) terms may be provided in the future. Readers and data users may adjust the nominal dollar values in the SCPC by using a suitable aggregate price index like the consumer price index.
- *Data evaluation and cleaning procedures* – In 2010, major revisions and improvements were made to the procedures used to evaluate the consistency and reliability of survey responses. Beginning in 2010, these procedures took account of survey response data for all respondents and all years (2008–2012) and employed enhanced statistical methodology to evaluate and clean the data. As a result, data for all years reported in dollar values or number of payments have been revised, including those for 2008 to 2009. Response rates have remained relatively high throughout the period studied in the SCPC program. However, missing values due to item nonresponse have not yet been imputed in the public-use dataset.⁵⁴

Data Revision

Readers of the tables will notice a superscript “r” next to the columns for the 2010 estimates, indicating that these data may have been revised since the last time they were published. The main reason for the changes is that a new weighting scheme was applied retroactively to the earlier SCPC results. In addition, a new outlier cleaning procedure was applied retroactively to the payment use and cash holdings numbers from 2008 to 2010. For more information on the change in the weighting protocol, see Angrisani, Foster, and Hitczenko (2014).

⁵⁴ SCPC datasets containing the original, uncleaned data and the cleaned data can be found on the CPRC website at <http://www.bostonfed.org/economic/cprc/data-resources.htm>.

Electronic Payments Benchmarking

SCPC measurement of consumer electronic payments can potentially be compared with comprehensive, reliable data from external sources for validation and benchmarking.⁵⁵ NACHA (The Electronic Payments Association) tracks the universe of electronic payments by collecting data from the two electronic clearing houses—FedACH, run by the Federal Reserve System, and the Electronic Payments Network (EPN), run by The Clearing House (TCH).⁵⁶

In principle, NACHA can identify all consumer-related electronic payments separately from electronic payments by business and government. According to NACHA rules, banks and other financial institutions involved in electronic payments must follow very specific accounting and classification procedures when handling electronic payments. Electronic payments are assigned to specific categories called standard entry class (SEC) codes, which define various types of payments. This SEC coding separates consumer-related electronic payments from others and assigns them to detailed categories of consumer electronic payments, which can then be compared with the SCPC estimates of consumer electronic payments.⁵⁷

For 2009–2012, the SCPC number of consumer electronic payments (OBBP + BANP) per month is close to the corresponding estimate from NACHA, as shown in Figure 21, despite some

⁵⁵ We thank NACHA CEO Janet Estep for bringing to our attention the potential of benchmarking the SCPC data to the NACHA data. We also thank Jane Larimer, Michael Herd, Colleen Morrison, and Scott Lang of NACHA for their time and effort to help us reconcile the two data sources. Claire Greene of the CPRC contributed prominently to the ideas and results in this subsection.

⁵⁶ For more information on FedACH, see <http://frbervices.org/fedach/>, and for more details on EPN, see <http://www.epaynetwork.com/home.php>.

⁵⁷ For more information about NACHA's operating rules see <https://www.nacha.org/achrules>. The NACHA SEC codes CIE, PPD debit, TEL, and WEB are the closest to the SCPC concepts of OBBP and BANP. However, the NACHA and SCPC concepts are not exactly the same. It is possible to improve the matching of the SCPC and NACHA data on consumer electronic payments, but doing so would require NACHA to receive information from the two ACH operators at a more detailed level of reporting than is currently provided. The CPRC is working with NACHA to refine the analysis and matching of the data sources and will release additional details in the future.

definitional differences in the two measures. In 2008, however, the SCPC estimate of consumer electronic payments is about one third higher than the NACHA estimate. This larger discrepancy is not yet well explained, but there are at least two potential explanations. First, the 2008 SCPC questionnaire had a different definition of BANP than it had in 2009–2012, so it is possible that the change in the questionnaire improved the accuracy of the SCPC estimate. Second, there are also unresolved differences in the matching of the SCPC and NACHA data that, once resolved, may reduce the discrepancy between the two estimates. In the meantime, the change in SCPC consumer electronic payments from 2008 to 2009 should be viewed circumspectly and should not be regarded as comparable to the change in the following years from 2009 to 2012. Figure 21 also plots the ACH data from the Federal Reserve Payments Study. In addition to consumer payments, the FRPS includes business and government payments. It is therefore not surprising that the number of ACH payments in the FRPS is higher than that in the SCPC or NACHA.

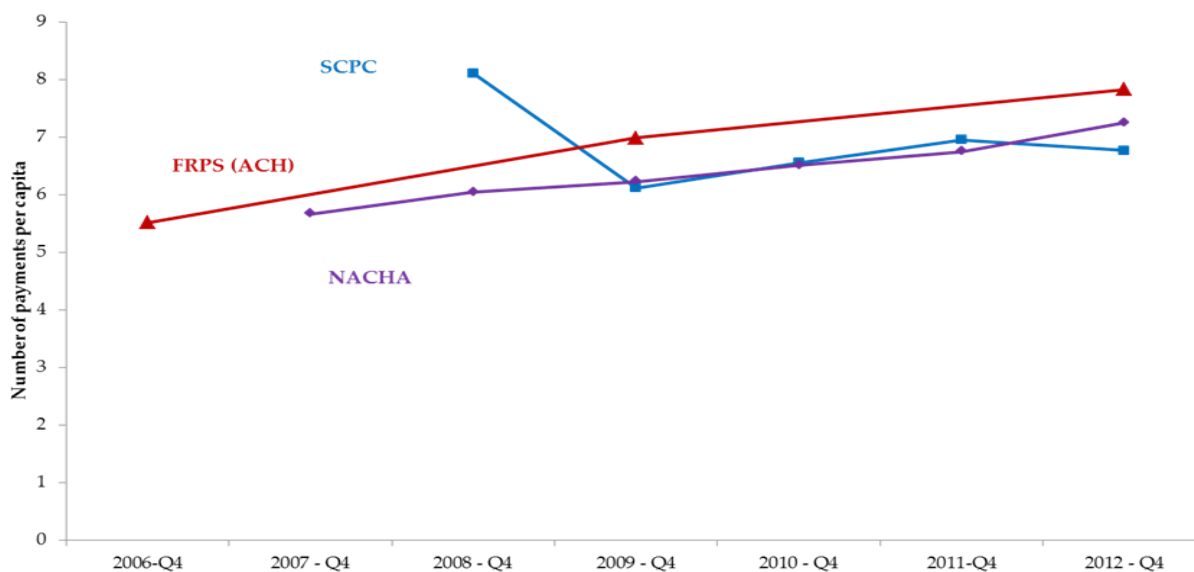


Figure 21: Comparison of SCPC and NACHA estimates of consumer electronic payments per capita per month, 2008–2012

Source: 2012 Survey of Consumer Payment Choice (BANP + OBBP), NACHA, FRPS.

Public-Use Data and Documentation

Along with this report, the CPRC is releasing a public-use microdata set that can be downloaded free of charge.⁵⁸ The dataset contains all of the 2011 and 2012 survey responses at the individual-respondent level, with all data cleaning and adjustments done by the CPRC, provided in multiple formats (SAS, Stata, and CSV). The SCPC data website also contains the 2011–2012 survey questionnaires, a codebook for data users, and standard errors corresponding to the estimates in the tables.⁵⁹ The data codebook includes tabulations of the results for all survey questions and variables.

The CPRC strongly recommends that users of the SCPC data read the Data User Manual and Technical Appendix (Angrisani, Foster, and Hitczenko 2014) for detailed instructions.⁶⁰ In particular, users should refrain from converting SCPC estimates for the average consumer to aggregate estimates for all U.S. consumers by multiplying SCPC data and the adult population.⁶¹ More research and development of the SCPC sampling weights, currently ongoing, are still needed to ensure that the aggregate estimates are properly benchmarked to other sources of aggregate payments data.

Some data users may wish to combine the five available survey datasets (2008–2012) to create a longitudinal panel for research. The CPRC recommends that data users who do so be acutely aware that changes in survey questions over time can make some variables incomparable between years (these are indicated by the italicized numbers in the official tables). The CPRC plans to release an official longitudinal dataset and will document and adjust for these

⁵⁸ The data are available from <http://www.bostonfed.org/economic/cprc/SCPC/index.htm>

⁵⁹ Additional information can be obtained from the Consumer Payments Research Center of the Boston Fed at the SCPC website or by contacting the individuals listed in the contact page at the beginning of this report.

⁶⁰ <http://www.bostonfed.org/economic/cprc/SCPC/index.htm>

⁶¹ This recommendation applies to the average number of payments per month, the average value of cash holdings, the average number of credit or debit cards, and other similar types of estimates.

differences in the future. The longitudinal dataset will also include longitudinal sample weights; ongoing research is being conducted to find the best methodology to construct these longitudinal weights.

In addition to the dataset on the Boston Fed website, we also include a link to the RAND data website, where the user can download the raw, unedited data. These data can be easily merged with the Boston Fed's dataset. For information on how to merge the two datasets, see the Technical Appendix (Angrisan, Foster, and Hitczenko 2014).

XIII. Conclusions

The 2011 and 2012 SCPC provide an updated snapshot of U.S. consumer payment choices that reflects widespread diversity and the influence of new payment innovations but also a persistent reliance on cash. When combined with similar data from the preceding three years, the SCPC begins to suggest trends and cyclical movements in consumer payments. One apparent trend is a steady decline in check payments at a rate of nearly 7.0 percent per year from 2009 to 2012. This trend coincides well with a longer-term trend in check use by the whole economy at least since 2000, as identified by the Federal Reserve Payment Study. One cyclical feature of consumer payment choice apparent in 2008–2012 is a pro-cyclical use of credit cards for payment by consumers and countercyclical use of cash. However, it is important to note that the fluctuations observed in credit cards and cash during this time apply to only one recent business cycle episode with a somewhat unusual recession (financial crisis).

More generally, it is important to continue to refrain from drawing firm conclusions about consumer payment trends or cyclical behavior at this juncture given the relatively short time period. Furthermore, the years of 2008–2012 were tumultuous because of the financial crisis, unusually severe recession, and relatively sluggish recovery. Even in normal economic times, however, trends estimated on five years of data are still too short and typically estimated too imprecisely to enable one to draw strong conclusions.

Consumer use of mobile banking and mobile payments has been expanding through 2012 in line with typical patterns of technology diffusion that have continued through at least 2013. About half of consumers had a prepaid card of some sort in 2012 and the variety of card types has expanded throughout the 2008–2012 period. The use of prepaid cards by consumers for payment grew appreciably in 2012, but the growth appears to be primarily on the extensive margin; use of prepaid cards by adopters was little changed. Also, consumers continue to rate prepaid cards low relative to other payment instruments. However, limitations in survey measurement of prepaid card activity prior to 2011 preclude accurate assessment of either trends or cyclical patterns in prepaid, so the future of prepaid cards is less clear at this juncture. Consumers have different preferences for the method of authorization of debit card payment, but without additional research it is not known whether Regulation II may have had any meaningful or identifiable impact on consumer payment choices. Consumers assess the quality of payment security in diverse ways not only across payment instruments but also across payment locations.

The overall picture of consumer payments that emerges from the 2008–2012 SCPC may provide useful information and background for assessing potential policy changes, such as Regulation II, the CFPB’s proposed rulemaking on prepaid cards, and the Federal Reserve’s new strategic plan for the U.S. payment system. However, firm conclusions about policy implications cannot be drawn from the official tables alone. More research is needed using individual consumer responses to be able to draw such policy implications and certainly to develop more effective policies.

XIV. Definitions and Concepts

This section contains tables with the definitions of concepts used in the Survey of Consumer Payment Choice (SCPC) questionnaire and in the construction of the official tables of statistics. Note that some of the definitions presented to the survey respondents may have been phrased

differently from the way they are specified here. For more information, consult the SCPC questionnaire, which is available online.

Definitions Table 1 – Banking Concepts

Concept	Definition
Assets	Any item of monetary value, including bank accounts, real estate, stocks, bonds, annuities, retirement accounts, motor vehicles, jewelry, rare or collectable goods, and personal or household goods.
Automated Teller Machine (ATM)	A machine that allows customers to access their bank accounts with an ATM card, debit card, or credit card to withdraw cash, make deposits, view account balances, transfer money, and perform other related banking transactions.
ATM card	A card that allows a customer to deposit or withdraw cash from an automated teller machine, but cannot be used for purchases or payments.
Bank	An institution that accepts deposits and offers checking accounts or savings accounts, including regular or internet-based commercial banks, credit unions, and savings and loans.
Checking account	An account that allows a customer to make payments or withdrawals as often as necessary using checks, debit or ATM cards, online or pre-authorized withdrawal payments. Some checking accounts pay interest on deposits and may be called money market checking accounts .
Mobile banking	A method of accessing one's bank account via a mobile phone, either by accessing the bank's web page on one's mobile phone, via text messaging, by reading emails from the bank, or by using a downloadable app on one's mobile phone.
Money market account	A type of savings account offered by banks and credit unions, similar to regular savings accounts . The difference is that money market accounts usually pay higher interest, have higher minimum balance requirements, and allow fewer withdrawals per month. Another difference is that, similar to a checking account , many money market accounts will let the customer write up to three checks each month.

Concept	Definition
Nonbank online payment account	A payment service provided by a company that is not a bank. These services allow a consumer to send and receive money online.
Online banking	A method of accessing a bank account via a bank's website, to perform such actions as viewing account balances, transferring funds between accounts, or paying bills electronically.
Savings account	Savings accounts allow only a limited number of payments, withdrawals, or transfers. Savings accounts pay interest on deposits that is usually higher than the interest on interest-bearing checking accounts. Examples include traditional savings accounts, money market savings accounts, Christmas Club accounts, and Coverdell or 529 education accounts.
Telephone banking	A method by which a bank's customer can access his or her account by calling a phone number that the bank has provided. The customer interacts with the system using voice commands, by using the phone's numeric keypad, or by speaking with a live customer service representative.

Definitions Table 2 – Payment Instruments

Concept	Definition
Bank account number payment (BANP)	A payment made by providing one's bank account number to a third party, such as one's employer or a utility company. The number can be given on websites, paper forms, etc.
Cash	Coins and paper bills.
Check	A piece of paper directing a financial institution to pay a specific amount of money to a person or business.
Credit card	A card that allows the cardholder to make a purchase by borrowing funds that will be paid back to the credit card company later.
Debit card	A type of card that allows one to make purchases or payments by accessing funds in one's bank account in addition to allowing one access to one's bank accounts through an ATM.
Money order	A type of payment that can be purchased from a bank or other institution and allows the individual named on the order to receive a specified amount of cash on demand.
Online banking bill payment (OBBP)	A payment made from a bank's online banking website or online mobile app that accesses funds from a customer's checking or savings account to pay a bill or to pay other people. This payment does not require the customer or the bank to disclose the customer's bank account number to a third party.
Prepaid card	A card that either stores or records a dollar value. Also known as stored value cards or gift cards. Some of these cards may have a Visa, MasterCard, Discover, or American Express logo on them, but they are not a credit or debit card. Some cards are for specific payments, like a phone card, and others work for many payments, like NetSpend or Green Dot. In addition, there are government-issued prepaid cards such as EBT, Direct Express, SNAP, and TANF. Most prepaid cards have a dollar value that can be used to make payments, which are deducted from the value stored on the card. Other types of prepaid cards may be valid for use over a specific period of time, such as a monthly public transit pass, but the value of these cards is not deducted each time the card is used.
Traveler's check	A piece of paper that is similar to a check but works like cash and is protected against loss or theft. Traveler's checks are purchased in advance and issued for a specific amount of money.

Definitions Table 3 – Adoption

Concept	Consumer Behavior that Defines Adoption
ATM card*	Has an ATM card.
Bank account	Has at least one checking account or savings account.
Cash	Has used cash to make a payment at least once in the past 12 months, holds cash (on person or on property), gets cash on a regular basis, or uses cash in a typical year.
Cell phone	Has a cell phone.
Check	Has used check to make a payment at least once in the past 12 months, currently has blank checks, or uses check in a typical year.
Checking account	Has at least one checking account.
Credit card*	Has a credit card.
Current adoption	The percentage of consumers who own a bank account or have a payment instrument and have not discarded it as of the time of the survey.
Debit card*	Has a debit card.
Discarding rate	The difference between historical and current adoption or ownership rates. It measures the minimum percentage of consumers who owned a bank account or had a payment instrument, but discarded it and thus do not own or have it now.
Bank account number payment (BANP)	Makes an electronic bank account number payment in a typical year.
Historical adoption	The percentage of consumers who have ever owned a bank account or had a payment instrument at any time (currently or in the past).
Mobile banking	Has a bank account, has a cell phone, and has set up mobile banking.
Money order	Has used a money order in the past 12 months or uses money order in a typical year.
Nonbank online payment account	Has at least one nonbank online payment account.
Online banking bill payment* (OBBP)	Has a bank account, has set up online banking, and has set up access to the online bill payment function.
Online banking*	Has a bank account and has set up online banking.
Ownership	Equivalent to adoption, but for bank accounts.
Prepaid card*	Has a prepaid card of any type.
Savings account	Has at least one savings account.
Smart phone	Has a smart phone.

Concept	Consumer Behavior that Defines Adoption
Telephone banking*	Has a bank account and has set up telephone banking.
Traveler's check	Has used a traveler's check in the past 12 months.

* In a small number of cases where respondents did not answer the direct adoption question for this concept, additional information from other questions was used to infer adoption in a manner consistent with the primary definition.

Definitions Table 4 – Payment Use

Concept	Consumer Behavior that Defines Use
Frequency of use	See "Use."
Incidence of use	The percentage of consumers who have used a particular payment instrument at least once during a typical period of time.
Incidence of use, annual	The percentage of consumers who have used a particular payment instrument at least once in a typical year.
Incidence of use, monthly	The percentage of consumers who have used a particular payment instrument at least once in a typical month.
Use	The number of times consumers use a particular instrument for payment during a typical month ("use" for a typical week or year was converted to a typical month for comparability).
Typical period	A recent week, month, or year in which the consumer did not experience any unusual payments or other related events. Consumers choose the reporting frequency they prefer most. The most recent period is implied and assumed but not stated explicitly in the survey questions.

Definitions Table 5 – Transaction Types

Concept	Definition
Automatic bill payment	A bill payment set up to occur on a regularly scheduled basis, typically monthly. Once set up, these do not require any additional effort on the consumer's part. They can be processed via bank account deductions, debit card transactions, or credit card charges or paid directly from the consumer's income.

Concept	Definition
Bill payment	A payment made to a company or person at some date after the time when the company or person provided goods or services to a consumer. Examples include a payment to a utility company for energy services provided during a month or a payment to service a loan such as a mortgage payment. Most bill payments occur at regular frequencies such as weekly, monthly or yearly.
By mail, in person, or by phone bill payment	Payments for bills, subscriptions, or debt payments that you mail in, pay in person, or call in on your phone.
Online bill payment (OBP)	Payments made online for bills, subscriptions, or debt payments, but not set up to be paid automatically.
Online payment (OP)	Payments for items bought over the internet or donations made online.
Person-to-person payment	Payments to people <u>not</u> made through a retail establishment, such as payments for allowances, paying back a friend, or gifts to other people.
Retail purchases of goods	Purchases of goods at stores, such as: grocery stores, superstores, department stores, drug stores.
Retail services and other payments	Purchases of services, such as those made at restaurants, bars, fast food and beverage establishments, transportation and toll locations, doctor's visits, or for child care, haircuts, education, recreation, and entertainment.

Definitions Table 6 – Payment Instrument Characteristics

Concept	Definition
Acceptance for payment	Please rate how likely each payment method is to be ACCEPTED for payment by stores, companies, online merchants, and other people or organizations.
Convenience	Please rate the CONVENIENCE of each payment method. <i>Examples: speed; record keeping; control over payment timing; ease of use; effort to carry, get or set up; ability to keep or store.</i>

Concept	Definition
Cost	Please rate the COST of using each payment method. <i>Examples: fees, penalties, postage, interest paid or lost; subscriptions or materials raise the cost; cash discounts and rewards (like frequent flyer miles) reduce the cost.</i>
Getting & setting up	Rate the task of GETTING & SETTING UP each payment method before you can use it. <i>Examples: getting cash at the ATM, length of time to get or set up, paper work, learning to use or install it, or travel.</i>
Payment records	Rate the quality of PAYMENT RECORDS offered by each method of payment. Consider both paper and electronic records. <i>Examples: proof of purchase, account balances, spending history, usefulness in correcting errors or dispute resolution, and ease of storage.</i>
Security	Suppose a payment method has been stolen, misused, or accessed without the owner's permission. Rate the SECURITY of each method against permanent financial loss or unwanted disclosure of personal information.

Definitions Table 7 – Other Terms and Concepts

Concept	Definition
Contactless payment technology	Allows the consumer to make a payment by tapping or waving a card or other instrument near a special electronic reading device without swiping, signing, or entering a personal identification number.
Electronic toll payment	A contactless payment technology allowing motor vehicle drivers to drive through a toll without stopping and have the toll automatically billed to them, rather than stopping to pay. Examples are EZ-Pass, I-Pass, Smart Lane, and Smart Tag. The payment can be made from a bank account, by credit card, and sometimes other methods.

Concept	Definition
Identity theft or fraud	All types of crime in which someone uses (or attempts to use) someone else's personal information or data without the owner's permission to purchase goods or services, make payments, steal money, set up accounts, or commit fraud. Examples of information used include name and address, Social Security number, credit card or debit card number, and other related financial information.
Key fob	A contactless payment technology that attaches to a key chain. Key fobs are branded by gas stations and credit card companies such as American Express, Visa, and MasterCard. An example is the Mobil Speedpass.
Overdraft protection	A service that a bank provides when a customer makes a transaction that exceeds his or her account balance. It covers the difference between the transaction amount and the account balance, and therefore the customer avoids a fee from the retailer or merchant for having insufficient funds. Overdraft protection can be activated by linking a savings account or credit card to a checking account, or through overdraft insurance, for instance.
Overdraft	Withdrawal of more money from a bank account than is currently in the account (also termed "insufficient funds"). Overdraft may occur, for example, when paying with a check, debit card, or electronic deduction.
Paid directly from income	A payment made for a consumer by an employer or other income provider directly from the consumer's wages and salaries or other income payments (such as interest and dividends, social security payments, retirement plan distributions, alimony, child support, welfare, trust fund distributions, and other money received).
Reward	Any type of benefit given to payment cardholders when they use their cards to make purchases and other payments. A reward is usually proportional to the dollar value of the purchase or payment. Examples include: cash back (a percentage of the dollar value), frequent flyer miles (airlines), frequent stay points (lodging), college tuition funding, and shopping network points.

XV. SCPC Board of Advisors, 2014

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Geoffrey Thomas (2011–2012)

Citizens Bank

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XVII.2011–2012 SCPC Tables

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Liquid Assets and Asset Management

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Notes to the SCPC Tables

Numeric superscripts in tables correspond to the notes listed below. Extra footnotes on each table are otherwise indicated by a symbol and explained below the table. For definitions of concepts in these tables please refer to Section XIV, Definitions and Concepts.

Footnote	Description
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General

- | | |
|---|---|
| 1 | Superscript "r" denotes that numbers in the table may be revised, that is, 2010 data may have been updated since its initial release. |
| 2 | The notation "na" indicates that the estimate is not available, often because the related survey question was not asked in the associated year. |
| 3 | Numbers in italics are not comparable across years due to changes in the survey questionnaire or methodology. |
| 4 | Numbers may not sum exactly due to rounding or missing values. |
| 5 | Dollar values are not adjusted for inflation [applies to Tables 14, 15, 16, 17]. |
| 6 | The nine available payment instruments are cash, check, money order, travelers check, debit card, credit card, prepaid card, online banking bill payment, and bank account number payment [applies to Tables 12, 32, 33]. |

Adoption

- | | |
|---|--|
| 7 | Adoption of payment instrument means the consumer had the instrument, with the following exceptions: <ul style="list-style-type: none"> a. For cash, adoption means the consumer used the instrument in the given year, held it on person, held it on property, or had obtained it at least once in a given year [applies to Tables 5, 6, 7, 8, 12, 20, 21b]. b. For money order, travelers check, bank account number payment, and direct deduction from income, adoption means the consumer used the instrument or method in a given year [applies to Tables 5, 6, 7, 8, 12, 14, 17, 20, 21b]. c. In 2011, the SCPC discontinued asking respondents about their typical use of travelers checks in a week, month, or year. Travelers check adoption is determined by the response to "In the past 12 months, have you used a travelers check, even once?" d. For online banking bill payment, adoption means having signed up for online banking bill pay at a bank's website [applies to Tables 6, 7, 10, 11, 12, 21b]. |
| 8 | Ever owned includes current adopters as well as respondents who have stated that they have used an account or technology in the past, but currently do not adopt the account and technology [applies to Tables 2, 7]. |
| 9 | Discarded refers to the difference between ever-owned and current ownership rates [applies to Tables 3, 8]. |

- 10 General purpose credit cards have a network logo such as Visa, MasterCard, Discover, or American Express. Branded cards also have a merchant's logo on the card. Some branded cards have a merchant logo only (no payment network). Charge cards require full payment of the balance at the end of each billing period [applies to Tables 9, 11].
- 11 In 2011, adoption of online payment service provider was redefined as someone who had adopted at least one of the following services: (1) PayPal; (2) Google Checkout; (3) Amazon Payments; and (4) Other. Previously, adoption of an online payment service provider was inferred if "number of non-bank online payment accounts" for the respondent exceeded zero [applies to Tables 1, 2, and 3].
- 12 Mobile banking adoption is defined as having downloaded a mobile banking app, or having performed one of the following activities using a mobile phone: (1) Checked a balance or recent transaction; (2) Paid a bill; (3) Received a text message alert from bank; (4) Transferred money between two accounts. In 2010 and prior years, mobile banking adoption was based on a single question [applies to Tables 1, 2, 3, and 19].

Prepaid Cards

- 13 General-purpose prepaid cards have a credit card network or PIN network logo and can be used at any merchant or retailer that accepts cards from that network. Specific-purpose prepaid cards, such as gift cards or public transportation cards, are limited in use to one or several merchants, retailers, or service providers [applies to Table 10].
- 14 Prepaid card adoption in 2011 was estimated from two random subsamples with respondents asked about 4 categories (n = 1,063) or 12 categories (n = 1,088) of prepaid cards. Unless otherwise indicated, reported 2011 estimates are based on 12 categories to be more consistent with 2012 estimates, which are based on 13 categories of prepaid card. In 2012, 1 additional category was added for clarification, "Other federal, state, or local government benefit card." See technical appendix for details on estimates with 4 categories [applies to Tables 5, 6, 7, 8, 10, 11, 12, 14, 21b].
- 15 The four categories of prepaid cards presented to the respondent in the 2011 survey are government issued, employer issued, general purpose, and specific purpose. In the 2010 survey, employer issued was called payroll card, and specific purpose was called merchant specific [applies to Tables 6, 7, 8].
- 16 A reloader is defined as having reported adopting a prepaid card that is reloadable and adding money to it in the past 12 months [applies to Table 18].

Other

- 17 The notation "s" indicates that the cell was suppressed due to insufficient number of observations.

Table 1**Current Ownership of Accounts and Account Access Technologies**

Percentage of consumers

	2010*	2011	2012
Deposit and payment accounts	94.6	96.3	99.1
Deposit accounts	92.7	92.1	92.5
Checking.....	91.9	91.5	91.4
Primary account earns interest.....	52.3	51.3	50.5
Overdraft protection.....	75.0	68.6	69.5
Savings.....	72.7	74.3	75.8
Traditional or passbook.....	68.3	74.3	75.8
Money market.....	23.6	na	na
With check privileges.....	14.6	na	na
Nonbank payment accounts			
Online payment service provider.....	29.7	49.8	53.5
Amazon payments.....	na	17.1	14.4
Google checkout.....	na	5.3	3.0
Paypal.....	na	45.4	49.0
Other.....	na	1.4	1.5
Other accounts			
Prepaid	na	51.0	52.3
Prepaid (4 categories).....	38.2	28.8	na
Account access technologies			
Deposit account access technologies			
ATM card.....	83.4	82.5	83.6
ATM card (no debit feature).....	42.2	41.7	39.2
Debit card.....	78.4	76.6	78.5
Telephone banking.....		35.0	31.6
Online banking.....	68.0	67.7	72.0
Mobile banking.....	11.5	30.2	35.8
App installed.....	na	15.4	22.3
Used mobile phone, with or without app.....	na	29.5	34.5
Check balance or recent transactions with mobile phone.....	na	24.5	30.0
Bill pay with mobile phone.....	na	14.8	16.3
Receive a text message alert from your bank.....	na	13.7	17.0
Transfer money between two accounts with mobile phone.....	na	13.9	18.2
Information and communication technologies			
Tablet.....	na	na	28.7
Mobile phone.....	92.2	92.5	94.8
Smart phone (iPhone, Android, BlackBerry, etc.).....	26.7	39.3	52.7

Notes: 1–4, 11, 12, 14, 15.

Table 2**Historical Ownership of Accounts and Account Access Technologies**

Percentage of consumers

Ever owned	2010^r	2011	2012
Deposit and payment accounts	98.4	98.1	99.2
Deposit accounts	98.4	96.7	96.0
Checking.....	97.9	96.2	95.7
Primary account earns interest.....	na	na	na
Overdraft protection.....	na	na	na
Savings.....	95.3	91.6	90.2
Traditional or passbook.....	94.9	91.6	90.2
Money market.....	37.7	na	na
With check privileges.....	na	na	na
Nonbank payment accounts	na	na	na
Online payment service provider.....	na	na	na
Amazon payments.....	na	na	na
Google checkout.....	na	na	na
Paypal.....	na	na	na
Other.....	na	na	na
Other accounts	na	na	na
Prepaid	na	80.3	79.8
Prepaid (4 categories).....	65.3	63.8	na
Account access technologies			
Deposit account access technologies			
ATM card.....	92.3	90.0	89.9
ATM card (no debit feature).....	69.9	64.7	63.5
Debit card.....	86.4	83.9	85.0
Telephone banking.....		47.3	44.9
Online banking.....	75.9	74.7	76.6
Mobile banking.....	13.7	39.3	46.6
App installed.....	na	18.2	26.9
Used mobile phone, with or without app.....	na	40.1	46.7
Check balance or recent transactions with mobile phone.....	na	33.9	40.3
Bill pay with mobile phone.....	na	22.1	25.2
Receive a text message alert from your bank.....	na	18.3	22.8
Transfer money between two accounts with mobile phone.....	na	17.2	23.2
Information and communication technologies			
Tablet.....	na	na	na
Mobile phone.....	na	97.2	97.9
Smart phone (iPhone, Android, BlackBerry, etc.).....	na	na	na

Notes: 1–4, 8, 11, 12, 14, 15.

Table 3**Discarding of Accounts and Account Access Technologies**

Percentage of consumers

Discarded	2010 ^r	2011	2012
Deposit and payment accounts	3.7	1.5	0.4
Deposit accounts	5.6	4.2	3.4
Checking.....	6.0	4.6	4.2
Primary account earns interest.....	na	na	na
Overdraft protection.....	na	na	na
Savings.....	22.6	17.0	14.3
Traditional or passbook.....	26.5	17.0	14.3
Money market.....	14.1	na	na
With check privileges.....	na	na	na
Nonbank payment accounts			
Online payment service provider.....	na	na	na
Amazon payments.....	na	na	na
Google checkout.....	na	na	na
Paypal.....	na	na	na
Other.....	na	na	na
Other accounts			
Prepaid	na	29.4	27.5
Prepaid (4 categories).....	27.0	35.2	na
Account access technologies			
Deposit account access technologies			
ATM card.....	8.8	7.2	6.2
ATM card (no debit feature).....	27.7	22.5	24.1
Debit card.....		7.0	6.2
Telephone banking.....	na	11.6	13.1
Online banking.....	7.8	6.6	4.6
Mobile banking.....	1.4	5.6	7.1
App installed.....	na	1.0	2.3
Used mobile phone, with or without app.....	na	6.2	7.6
Check balance or recent transactions with mobile phone.....	na	5.6	6.3
Bill pay with mobile phone.....	na	5.0	6.8
Receive a text message alert from your bank.....	na	2.4	3.5
Transfer money between two accounts with mobile phone.....	na	1.2	2.5
Information and communication technologies			
Tablet.....	na	na	na
Mobile phone.....	na	4.7	3.1
Smart phone (iPhone, Android, BlackBerry, etc.).....	na	na	na

Notes: 1–4, 9, 11, 12, 14, 15.

Table 4**Primary Bank Account Holdings, by Type of Deposit Account and Financial Institution**

Percentage of consumers	2010 ^r	2011	2012
Primary checking account			
Commercial bank.....	63.1	60.1	59.3
Savings and loan.....	6.9	6.0	7.1
Credit union.....	18.1	18.9	20.7
Brokerage.....	0.4	0.4	0.3
Internet bank.....	0.6	1.1	0.7
Other.....	2.0	2.0	0.6
Primary savings account			
Commercial bank.....	35.0	38.3	36.2
Savings and loan.....	5.3	5.1	5.9
Credit union.....	22.1	22.7	25.2
Brokerage.....	1.0	1.3	1.5
Internet bank.....	1.6	2.6	2.9
Other.....	1.3	0.9	0.7
Percentage of account adopters*	2010 ^r	2011	2012
Primary checking account			
Commercial bank.....	69.3	67.9	66.9
Savings and loan.....	7.6	6.7	8.0
Credit union.....	19.9	21.3	23.4
Brokerage.....	0.4	0.5	0.3
Internet bank.....	0.7	1.2	0.8
Other.....	2.2	2.3	0.7
Primary savings account			
Commercial bank.....	52.7	53.9	50.0
Savings and loan.....	8.0	7.2	8.2
Credit union.....	33.2	32.0	34.8
Brokerage.....	1.5	1.8	2.1
Internet bank.....	2.5	3.7	4.0
Other.....	2.0	1.3	0.9

* Adopters are respondents who have identified themselves as owning and/or using that type of account. For example, 66.9% of checking account adopters identified "commercial bank" as the location of their primary checking account in 2012.

Notes: 1–4.

Table 5**Current Adoption of Payment Instruments, by Type of Asset or Liability**

Percentage of consumers

	2010*	2011	2012
Assets			
Money (M1)*	100.0	100.0	100.0
Cash (currency).....	100.0	99.8	100.0
Travelers check.....	6.2	2.4	1.4
Demand deposit accounts, consumer	96.4	95.0	96.3
Checks.....	87.0	85.5	85.4
Personal.....	87.0	85.5	85.4
Certified.....	na	na	4.4
Debit card.....	78.4	76.6	78.5
Online banking bill payment.....	48.8	51.9	55.3
Bank account number payment.....	64.8	65.7	62.7
Other deposit accounts.....			
Cashier's check.....	na	na	8.2
Other (unknown/unspecified)	60.4	63.6	67.3
Direct deduction from income	17.5	21.2	16.4
Money order.....	23.6	22.5	21.7
Prepaid.....	38.2	51.0	52.3
Liabilities			
Credit or charge card.....	70.3	69.8	72.1
Credit.....	68.5	69.5	71.6
Charge.....	16.1	9.7	10.9
Text/SMS mobile payment.....	3.1	2.2	2.8

* For M1 official definition, see Federal Reserve Statistical Release H.6.

Notes: 1–4, 7, 14.

Table 6**Current Adoption of Payment Instruments, by Form of Instrument and Other Means of Payment**

Percentage of consumers

	2010 ^r	2011	2012
Paper instruments	100.0	99.8	100.0
Cash.....	100.0	99.8	100.0
Checks.....	87.0	85.5	85.4
Certified check.....	na	na	4.4
Cash and check substitutes.....	28.2	24.2	29.8
Money order.....	23.6	22.5	21.7
Travelers check.....	6.2	2.4	1.4
Cashier's check.....	na	na	8.2
Payment cards	na	94.9	97.1
Payment cards (4 categories)	94.2	94.7	na
Debit.....	78.4	76.6	78.5
Credit or charge card.....	70.3	69.8	72.1
Credit.....	68.5	69.5	71.6
Charge	16.1	9.7	10.9
Prepaid	na	51.0	52.3
Prepaid (4 categories).....	38.2	28.8	na
Electronic payments	75.8	78.1	77.6
Online banking bill payment.....	48.8	51.9	55.3
Bank account number payment.....	64.8	65.7	62.7
Other means of payment			
Direct deduction from income.....	17.5	21.2	16.4

Notes: 1–4, 7, 14, 15.

Table 7**Historical Adoption of Payment Instruments, by Form of Instrument and Other Means of Payment**

Percentage of consumers

	Ever adopted	2010 ^a	2011	2012
Paper instruments				
Cash.....		na	na	na
Checks.....		na	na	na
Certified check.....		na	na	na
Cash and check substitutes.....				
Money order.....		81.2	78.5	80.9
Travelers check.....		54.5	na	na
Cashier's check.....		na	na	na
Payment cards				
Payment cards (4 categories)				
Debit.....		86.4	83.9	85.0
Credit or charge card.....		87.4	84.9	86.3
Credit.....		na	na	na
Charge.....		na	na	na
Prepaid.....		na	80.3	79.8
Prepaid (4 categories).....		65.3	63.8	na
Electronic payments				
Online banking bill payment.....		57.0	59.1	61.0
Bank account number payment.....		na	na	na
Other means of payment				
Direct deduction from income.....		na	na	na

Notes: 1–4, 7, 8, 14, 15.

Table 8**Discarding of Payment Instruments, by Form of Instrument and Other Means of Payment**

Percentage of consumers

	Discarded	2010 ^a	2011	2012
Paper instruments				
Cash.....		na	na	na
Checks.....		na	na	na
Certified check.....		na	na	na
Cash and check substitutes.....		na	na	na
Money order.....		57.5	56.0	59.4
Travelers check.....		48.3	na	na
Cashier's check.....		na	na	na
Payment cards				
Payment cards (4 categories)				
Debit.....		7.9	7.0	6.2
Credit or charge card.....		17.1	15.0	14.2
Credit.....		na	na	na
Charge.....		na	na	na
Prepaid.....		na	29.4	27.5
Prepaid (4 categories).....		27.0	35.2	na
Electronic payments				
Online banking bill payment.....		5.3	7.5	5.9
Bank account number payment.....		na	na	na
Other means of payment				
Direct deduction from income.....		na	na	na

Notes: 1–4, 9, 14, 15.

Table 9**Current Adoption of Debit, Credit, and Charge Cards, by Instrument Type and Features**

Percentage of consumers

	2010 ^a	2011	2012
Debit cards	78.4	76.6	78.5
Rewards.....	na	na	20.2
Nonrewards.....	na	na	na
Contactless.....	12.4	12.1	10.2
Credit cards or charge cards	70.3	69.8	72.1
Rewards.....	53.8	51.6	56.4
Nonrewards.....	42.5	41.3	42.1
Credit	68.5	69.5	71.6
Rewards.....	51.9	50.8	55.3
Nonrewards.....	41.3	41.0	41.9
Contactless.....	9.2	9.3	10.1
General purpose.....	65.3	68.0	70.8
Visa, MasterCard, Discover	na	67.6	70.2
American Express	na	10.7	11.8
Rewards.....	47.3	47.8	52.6
Nonrewards.....	31.1	31.8	32.0
Company or store branded	na	44.3	45.4
Rewards.....	23.6	19.8	22.0
Nonrewards.....	23.9	22.9	24.0
Charge	16.1	9.7	10.9
Rewards.....	8.7	6.9	7.4
Nonrewards.....	6.0	2.1	1.6
American Express charge cards.....		9.2	10.3
Rewards.....	na	6.6	7.1
Nonrewards.....	na	1.9	1.2
Diners Club or other charge cards.....	na	1.1	1.8
Rewards.....	na	0.4	0.6
Nonrewards.....	na	0.3	0.5

Notes: 1–4, 10.

Table 10**Current Adoption of Prepaid Cards and Contactless Technologies, by Instrument Type and Features**

Percentage of consumers

	2010 ^r	2011	2012
Prepaid cards (4 categories)	38.2	28.8	na
Contactless.....	3.1	2.8	na
General purpose.....	25.9	14.1	na
Merchant specific.....	19.0	28.0	na
Payroll.....	2.3	6.7	na
Government issued.....	5.5	7.7	na
Prepaid cards (12 or 13 categories)	na	51.0	52.3
Contactless.....	na	1.9	3.3
Government related	na	7.7	13.4
Direct express card.....	na	1.9	1.6
Electronic benefits transfer (EBT) card.....	na	9.6	11.1
Public transportation card.....	na	6.4	8.4
Other federal, state, or local government benefit card.....	na	na	2.6
Employer related	na	6.7	11.5
Payroll card.....	na	0.8	2.1
Incentive card.....	na	0.5	2.2
Benefit card.....	na	8.2	8.7
Other	na	44.6	42.7
Gift card.....	na	32.3	32.3
Phone card.....	na	6.0	6.2
Remittance card.....	na	0.3	0.8
Rebate card.....	na	4.8	7.9
Location specific card.....	na	1.7	2.6
Other general purpose card.....	na	11.0	9.7
Contactless Technologies		24.1	27.9
Any payment card.....	na	19.5	18.5
Electronic toll payment.....	11.9	11.6	10.6
Key fob.....	1.6	1.9	1.8
Mobile phone*.....	1.0	1.3	1.0

* Adoption means the consumer used the instrument in a given year.

Notes: 1–4, 7, 13, 14.

Table 11**Number of Adopted Accounts and Payment Cards**

Mean number per adopter*

	2010 ^a	2011	2012
Deposit accounts	2.9	3.0	3.1
Checking.....	1.5	1.6	1.6
Savings.....	1.9	1.8	1.8
Traditional or passbook.....	1.5	na	na
Money market.....	1.3	na	na
Nonbank payment accounts			
Online payment service provider.....	2.2	na	na
ATM and debit cards			
ATM.....	1.4	1.6	1.4
Debit.....	1.4	1.6	1.6
Credit cards	3.9	3.8	4.0
Rewards.....	2.1	2.1	2.3
Nonrewards.....	1.8	1.7	1.7
General purpose	2.1	2.3	2.4
Rewards.....	1.4	1.4	1.6
Nonrewards.....	1.1	1.0	0.9
Charge	0.4	0.2	0.2
Rewards.....	0.2	0.1	0.1
Nonrewards.....		0.0	0.0
Branded	1.5	1.4	1.5
Rewards.....	0.7	0.7	0.7
Nonrewards.....	1.0	0.9	0.9
Prepaid cards	na	3.0	2.8

* Bold-face numbers are per adopter of the instrument. The denominator for each of the subcategories is the number of adopters of the bold-faced instrument.

Notes: 1–4, 7, 10, 14.

Table 12**Mean Number of Payment Instruments Adopted by Account and Payment Instrument Adopters**

	2010 ^a	2011	2012
Available number of payment instruments	9	9	9
Total (all consumers)	5.2	5.2	5.3
Paper instruments.....	2.2	2.1	2.1
Card instruments.....	1.9	1.9	2.0
Electronic instruments.....	1.1	1.1	1.2
Deposit account non-adopters	1.9	1.9	2.3
Deposit account adopters	5.5	5.4	5.6
Checking and savings account adopters.....	5.5	5.6	5.7
Checking account adopters, no savings.....	5.3	5.1	5.1
Savings account adopters, no checking.....	s	s	s
Paper instrument adopters	5.2	5.2	5.3
Cash adopters.....	5.2	5.2	5.3
Check adopters.....	5.5	5.5	5.6
Money order adopters.....	5.5	5.6	5.7
Travelers check adopters.....	6.5	6.2	s
Payment card adopters	5.4	5.5	5.4
Debit adopters.....	5.7	5.7	5.8
Credit adopters.....	5.7	5.7	5.8
Prepaid adopters.....		5.8	5.8
Electronic payment adopters	5.8	5.8	5.9
Online banking bill payment adopters.....	6.1	6.1	6.2
Bank account number payment adopters.....	5.9	5.9	6.1

Notes: 1, 3, 4, 6, 7, 14, 17.

Table 13**Cash and Prepaid Card Holdings and Prepaid Card Reloadings**

Dollars per consumer, except as noted

	Mean			Median		
	2010 ^r	2011	2012	2010 ^r	2011	2012
Cash holdings	340	337	464	70	70	69
On person.....	66	73	73	30	31	29
On property.....	286	278	401	15	13	10
Excluding large-value holdings*.....	142	158	174	60	62	62
On person.....	47	50	46	26	29	25
On property.....	92	105	115	10	10	5
Prepaid card holdings, adopters[†]	396	374	346	44	67	99
Prepaid card reloading						
Percentage of consumers reloading prepaid cards.....	6.2	10.2	11.8	—	—	—
Dollar amount per reloading, reloaders only.....	78	116	216	49	41	46
Number of reloads per month, reloaders only.....	na	1.2	1.4	na	1.0	0.7

* Estimates are for the sub-sample of respondents with cash holdings of less than or equal to the 95th percentile (approximately \$1,200 for total, \$260 for on person, and \$1,000 on property in 2010; \$1,245 for total, \$265 for on person, and \$1,000 on property in 2011; and \$1,524 for total, \$265 for on person, and \$1,200 on property in 2012).

† In 2010, the distribution of values has a thick right tail, and the estimate reported is based on all observations below the 90th percentile, or \$6,000.

Notes: 1–4.

Table 14**Cash Holdings, by Adoption of Deposit Accounts and Payment Instruments**

Dollars per consumer*

Adopters	Mean			Median		
	2010 ^r	2011	2012	2010 ^r	2011	2012
Deposit account	334	358	469	75	79	75
On person.....	66	76	68	30	35	29
On property.....	279	298	412	19	19	13
ATM or debit card	267	315	396	69	69	67
On person.....	60	70	63	29	30	25
On property.....	215	257	342	15	15	10
Credit card	393	386	428	98	93	99
On person.....	72	74	83	39	39	39
On property.....	335	326	353	20	20	19
Prepaid card	na	328	420	na	85	80
On person.....	na	84	72	na	34	29
On property.....		260	357	na	19	18
Money order	354	339	309	44	65	65
On person.....	65	85	93	20	35	27
On property.....	308	267	219	5	9	8
Nonadopters	Mean			Median		
	2010 ^r	2011	2012	2010 ^r	2011	2012
Deposit account	s	110	426	s	16	35
On person.....	s	44	145	s	8	17
On property.....	s	69	293	s	0	0
ATM or debit card	713	446	834	70	85	104
On person.....	96	86	128	38	34	41
On property.....	656	389	730	19	5	8
Credit card	214	224	561	32	36	34
On person.....	53	73	49	19	19	19
On property.....	168	162	531	0	4	0
Prepaid card	na	437	514	na	58	63
On person.....	na	69	76	na	25	27
On property.....	na	380	452	na	9	5
Money order	338	336	509	76	73	70
On person.....	66	70	68	30	30	29
On property.....	282	280	455	19	14	10

* "On person" is defined as cash held in the respondent's wallet, purse, and/or pocket. "On property" is defined as cash held elsewhere by the respondent (in the respondent's home, car, office, etc.) instead of on person.

Notes: 1–5, 7, 14, 17.

Table 15**Cash Withdrawals, Total and at Most Frequent Location**

Dollars per consumer per location, except as noted*

Total	Mean			Median		
	2010^r	2011	2012	2010^r	2011	2012
Cash withdrawals per month†	468	526	655	240	261	280
Amount per withdrawal.....	129	129	131	60	70	74
Withdrawals (number per month).....	4.8	5.4	6.4	4	4	4
Most frequent location per month	380	426	470	194	200	200
Amount per withdrawal.....	129	134	138	58	72	78
Withdrawals (number per month).....	3.6	3.9	4.1	2.0	2.0	2.0
All other locations per month	91	105	189	0	12.5	18.1
Amount per withdrawal.....	49	51	58	0	16	17
Withdrawals (number per month).....	1.3	1.5	2.3	0	0.3	0.4
At Most Frequent Location	Mean			Median		
	2010^r	2011	2012	2010^r	2011	2012
ATM per month	287	399	445	174	200	200
Amount per withdrawal.....	92	104	113	52	58	60
Withdrawals (number per month).....	4	4.3	4.3	3	2.8	2.7
Bank teller per month	461	466	535	261	200	290
Amount per withdrawal.....	191	202	222	100	97	99
Withdrawals (number per month).....	3	2.7	2.9	2	1.6	2.0
Check cashing store per month	s	s	s	s	s	s
Amount per withdrawal.....	s	s	s	s	s	s
Withdrawals (number per month).....		s	s	s	s	s
Retail or grocery store per month	145	129	122	83	83	80
Amount per withdrawal.....	32	32	34	19	19	20
Withdrawals (number per month).....	4	4.0	3.9	3	3.0	2.3
Employer per month	s	s	1101	s	s	481
Amount per withdrawal.....	s	s	202	s	s	119
Withdrawals (number per month).....	s	s	6.3	s	s	4.1
Family or friend per month	207	173	319	46	87	50
Amount per withdrawal.....	64	71	61	19	24	39
Withdrawals (number per month).....	4	3.7	4.6	1	1.5	1.0
Other per month	620	1126	985	516	428	503
Amount per withdrawal.....	203	253	155	90	98	83
Withdrawals (number per month).....	4.7	7.6	9.0	2.4	3.1	4.1

* The amount for each location is the dollar amount of withdrawals at that location only by consumers who named that location as their most frequent location. Amount withdrawn per month is obtained from the amount per withdrawal times the number of withdrawals, calculated for each consumer.

† *Cash withdrawals per month* is the withdrawal-weighted average of typical amounts per withdrawal from the primary and all other locations.

Notes: 1, 4, 5, 17.

Table 16**Cash Withdrawal Preferences, by Location and Method**

Percentage of consumers

Total	Mean		
	2010^r	2011	2012
Cash withdrawals (monthly).....	89.6	92.3	90.2
Cash withdrawals (annually).....	96.8	98.7	99.0
Most Frequented Location	Mean		
	2010^r	2011	2012
ATM.....	50.5	51.4	49.6
Bank teller.....	23.5	23.7	24.0
Check cashing store.....	0.7	1.9	1.8
Retail or grocery store.....	10.3	10.8	12.6
Employer.....	4.6	3.2	3.4
Family or friend.....	6.9	5.5	4.8
Other.....	3.4	3.6	3.9
Most Frequent Method, by Location	Mean		
	2010^r	2011	2012
ATM			
Debit card.....	na	na	72.3
ATM card.....	na	na	21.3
Prepaid card.....	na	na	4.2
Credit card cash advance.....	na	na	0.2
Other type of card.....	na	na	1.9
Retail store			
Debit card.....	na	na	88.6
Write a check.....	na	na	2.1
Prepaid card.....		na	1.0
Other method.....	na	na	7.9

Notes: 1–5.

Table 17**Total Cash Withdrawals, by Adoption of Deposit Accounts and Payment Instrument**

Dollars per month per location, except as noted*

Adopters	Mean			Median		
	2010 ^r	2011	2012	2010 ^r	2011	2012
Deposit account per month	455	496	563	240	258	260
Amount per withdrawal.....	120	118	122	60	69	68
Withdrawals (number per month).....	4.9	5.3	5.8	3.9	4.0	4.0
ATM or debit card per month	442	489	548	228	250	240
Amount per withdrawal.....	113	110	112	60	60	60
Withdrawals (number per month).....	5.0	5.4	5.9	3.9	4.0	4.0
Credit card per month	426	442	572	225	240	242
Amount per withdrawal.....	122	120	119	70	74	73
Withdrawals (number per month).....	4.6	4.6	5.8	3.0	3.2	3.5
Prepaid card per month	na	630	649	na	300	300
Amount per withdrawal.....	na	145	127	na	70	75
Withdrawals (number per month).....	na	6.0	6.7	na	3.9	4.0
Money order per month	585	730	1046	344	397	433
Amount per withdrawal.....	149	148	132	66	78	78
Withdrawals (number per month).....	5.8	6.6	10.7	4.3	4.3	4.6
Nonadopters	Mean			Median		
	2010 ^r	2011	2012	2010 ^r	2011	2012
Deposit account per month	s	733	1538	s	421	621
Amount per withdrawal.....	s	229	234	s	91	114
Withdrawals (number per month).....		6.4	11.4	s	3.0	3.5
ATM or debit card per month	604	635	1089	300	377	502
Amount per withdrawal.....	215	207	224	99	100	129
Withdrawals (number per month).....	3.6	5.3	7.8	3.0	3.0	3.0
Credit card per month	571	723	871	256	344	400
Amount per withdrawal.....	147	150	166	59	60	77
Withdrawals (number per month).....	5.4	7.2	7.9	4.3	4.3	4.0
Prepaid card per month	na	508	652	na	214	241
Amount per withdrawal.....	na	137	136	na	60	72
Withdrawals (number per month).....	na	5.1	6.0	na	3.1	3.3
Money order per month	411	466	541	200	240	240
Amount per withdrawal.....	121	124	131	60	67	73
Withdrawals (number per month).....	4.4	5.1	5.2	3.0	3.2	3.0

* Amount withdrawn per month is obtained from the amount per withdrawal times the number of withdrawals, calculated for each consumer.

Notes: 1–5, 7, 17.

Table 18**Share of Consumers Using Accounts and Technologies in a Given Year**

Percentage of consumers	2010 ^r	2011	2012
Deposit account access	90.7	88.6	89.2
Bank branch visit*.....	75.7	73.9	73.7
ATM.....	72.7	75.1	73.5
Telephone banking.....	29.4	26.0	22.3
Online banking.....	63.4	66.7	70.3
Using a computer or laptop.....	na	65.3	68.3
Using a mobile phone.....	na	14.7	21.2
Using other internet connected device.....	na	18.5	24.3
Using other device.....	na	4.7	0.0
Mobile banking.....	10.3	29.5	34.5
App installed.....	na	na	na
Used mobile phone, with or without app.....	na	29.5	34.5
Check balance or recent transactions with mobile phone.....	na	24.5	30.0
Bill pay with mobile phone.....	na	14.8	16.3
Receive a text message alert from your bank.....	na	13.7	17.0
Transfer money between two accounts with mobile phone.....	na	13.9	18.2
Nonbank payment accounts			
Online payment service provider.....	19.5	35.8	38.5
Prepaid card reloading.....	6.2	10.2	11.8
Percentage of adopters	2010 ^r	2011	2012
Deposit account access	97.8	97.0	97.0
Bank branch visit.....	81.7	80.3	79.6
ATM.....	79.0	82.3	80.1
Telephone banking.....	31.8	28.4	24.3
Online banking.....	68.4	72.8	76.4
Using a computer or laptop.....	na	71.3	74.3
Using a mobile phone.....	na	14.7	21.2
Using other internet connected device.....	na	20.2	26.4
Mobile banking.....	11.1	32.0	37.3
App installed.....	na	na	na
Used mobile phone, with or without app.....	na	32.0	37.3
Check balance or recent transactions with mobile phone.....	na	26.6	32.5
Bill pay with mobile phone.....	na	16.1	17.6
Receive a text message alert from your bank.....	na	14.9	18.4
Transfer money between two accounts with mobile phone.....	na	15.1	19.7
Nonbank payment accounts			
Online payment service provider.....	65.9	71.8	72.1
Prepaid card reloading, reloaders only (monthly).....	na	na	na

* Bank branch visit is defined as visiting a bank and interacting with a teller or other bank employee. It does not include visiting an ATM located at a bank branch.

Notes: 1–4, 16.

Table 19**Mobile Banking and Mobile Payments**

Percentage of consumers, except as noted

	2010*	2011	2012
Current adoption and use of mobile banking	na	30.2	35.8
Mobile banking app installed.....	na	15.4	22.3
Check balance or recent transactions with mobile phone.....	na	24.5	30.0
Bill pay with mobile phone.....	na	14.8	16.3
Receive a text message alert from your bank.....	na	13.7	17.0
Transfer money between two accounts with mobile phone.....	na	13.9	18.2
Historical adoption of mobile banking	na	39.3	46.6
Mobile banking app installed.....	na	18.2	26.9
Check balance or recent transactions with mobile phone.....	na	33.9	40.3
Bill pay with mobile phone.....	na	22.1	25.2
Receive a text message alert from your bank.....	na	18.3	22.8
Transfer money between two accounts with mobile phone.....	na	17.2	23.2
Discard rate of mobile banking	na	5.6	7.1
Mobile banking app installed.....	na	1.0	2.3
Check balance or recent transactions with mobile phone.....	na	5.6	6.3
Bill pay with mobile phone.....	na	5.0	6.8
Receive a text message alert from your bank.....	na	2.4	3.5
Transfer money between two accounts with mobile phone.....	na	1.2	2.5
Use of mobile payments on an annual basis	4.0	12.3	18.0
Text/SMS.....	3.1	2.2	2.8
Contactless.....	1.0	1.3	1.0
Scanned a barcode.....	na	2.2	2.0
Used your mobile phone's web browser.....		8.2	12.0
Used a mobile app.....	na	6.0	7.0
Swiped card in device attached to mobile phone.....	na	na	6.4
Use of mobile payments on an annual basis (percentage of users)			
Text/SMS.....	76.0	17.8	15.8
Contactless.....	25.2	10.9	5.5
Scanned a barcode.....	14.7	18.1	11.5
Used your mobile phone's web browser.....	na	66.8	66.7
Used a mobile app.....	na	49.0	39.0
Swiped card in device attached to mobile phone.....	na	na	36.0

Notes: 1–4, 11.

Table 20**Share of Consumers Using Payment Instruments, by Type of Asset or Liability**

Percentage of consumers	Monthly			Annual		
	2010 ^r	2011	2012	2010 ^r	2011	2012
Assets						
Money (M1)*						
Cash (currency).....	88.8	86.7	84.7	91.6	89.1	87.3
Travelers check.....	0.0	na	na	4.9	2.4	1.4
Demand deposit accounts, consumer						
Checks.....						
Personal.....	70.8	66.8	65.5	77.2	72.3	72.0
Certified.....	na	na	na	na	na	4.4
Debit card.....	64.7	64.2	61.7	67.2	65.8	64.4
Online banking bill payment.....	36.2	36.7	35.6	38.1	37.9	36.8
Bank account number payment.....	57.7	55.8	53.7	64.0	62.6	60.1
Other deposit accounts, bank.....						
Cashier's check.....	na	na	na	na	na	8.2
Other (unknown/unspecified)						
Direct deduction from income.....	15.4	18.4	14.2	16.4	19.6	15.1
Money order.....	10.6	8.6	9.4	14.7	13.1	12.7
Prepaid.....	8.5	9.7	10.3	11.7	15.1	15.8
Liabilities						
Credit or charge card.....	56.6	54.8	55.9	61.3	58.3	59.7
Credit.....	na	na	na	na	na	na
Charge.....	na	na	na	na	na	na
Text/SMS mobile payment.....	na	na	na	3.1	2.2	2.8

* For M1 official definition, see Federal Reserve Statistical Release H.6.

Notes: 1–4, 7, 14.

Table 21a
Share of Consumers Using Payment Instruments

Percentage of consumers	Monthly			Annual		
	2010 ^r	2011	2012	2010 ^r	2011	2012
Paper instruments	96.0	93.2	91.7	96.6	94.4	93.4
Cash.....	88.8	86.7	84.7	91.6	89.1	87.3
Check.....	70.8	66.8	65.5	77.2	72.3	72.0
Certified check.....	na	na	na	na	na	4.4
Money order.....	10.6	8.6	9.4	14.7	13.1	12.7
Travelers check.....	0.0	na	na	4.9	2.4	1.4
Cashier's check.....	na	na	na	na	na	8.2
Payment cards	na	86.9	85.4	na	88.0	86.4
Debit.....	64.7	64.2	61.7	67.2	65.8	64.4
Credit or charge card.....	56.6	54.8	55.9	61.3	58.3	59.7
Credit.....	na	na	na	na	na	na
Charge.....	na	na	na	na	na	na
Prepaid.....	na	9.7	10.3	na	15.1	15.8
Prepaid (4 categories).....	8.5	8.7	na	11.7	12.2	na
Electronic payments	68.9	68.3	66.1	72.2	71.5	69.2
Online banking bill payment.....	36.2	36.7	35.6	38.1	37.9	36.8
Bank account number payment.....	57.7	55.8	53.7	64.0	62.6	60.1
Unknown/unspecified instrument						
Mobile payments.....	na	na	na	4.0	12.3	18.0
Text/SMS.....	na	na	na	3.1	2.2	2.8
Contactless.....		na	na	1.0	1.3	1.0
Scanned a barcode.....	na	na	na	na	2.2	2.0
Used your mobile phone's web browser.....	na	na	na	na	8.2	12.0
Used a mobile app.....	na	na	na	na	6.0	7.0
Swiped card in device attached to mobile phone.....	na	na	na	na	na	6.4
Other means of payment						
Direct deduction from income.....	15.4	18.4	14.2	16.4	19.6	15.1

Notes: 1–4, 14, 15.

Table 21b
Share of Adopters Using Payment Instruments

Percentage of adopters†	Monthly			Annual		
	2010 ^r	2011	2012	2010 ^r	2011	2012
Paper instruments	96.0	93.8	91.9	96.6	94.7	92.6
Cash.....	89.0	87.4	85.2	91.8	89.9	87.8
Check.....	81.4	79.2	77.6	88.8	85.7	85.3
Certified check.....	na	na	na	na	na	na
Money order.....	45.5	38.3	43.6	62.8	58.4	59.3
Travelers check.....	0.8	na	na	78.2	na	na
Cashier's check.....	na	na	na	na	na	na
Payment cards	na	92.2	88.6	na	93.4	89.6
Debit.....	82.6	84.7	79.4	85.7	86.7	82.9
Credit or charge card.....	80.5	78.9	78.3	87.2	83.9	83.6
Credit.....	na	na	na	na	na	na
Charge.....	na	na	na	na	na	na
Prepaid.....	na	19.2	19.8	na	29.6	30.4
Prepaid (4 categories).....	22.2	30.5	na	30.4	42.5	na
Electronic payments	91.5	90.1	87.4	95.9	94.3	91.5
Online banking bill payment.....	74.7	72.2	65.4	78.6	74.7	67.6
Bank account number payment*.....	90.1	89.1	89.5	100.0	100.0	100.0
Unknown/unspecified instrument						
Mobile payments.....						
Text/SMS.....		na	na	76.0	17.8	15.8
Contactless.....	na	na	na	25.2	10.9	5.5
Scanned a barcode.....	na	na	na	14.7	18.1	11.5
Used your mobile phone's web browser.....	na	na	na	na	66.8	66.7
Used a mobile app.....	na	na	na	na	49.0	39.0
Swiped card in device attached to mobile phone.....	na	na	na	na	na	36.0
Other means of payment						
Direct deduction from income*.....	94.0	94.0	94.0	100.0	100.0	100.0

* Estimates are 100 percent whenever adoption is defined solely as annual incidence of use.

† Each payment instrument uses adopters of that particular payment instrument as the denominator. For example, in 2012, 85.2% of cash adopters use cash in a typical month.

Notes: 1–4, 7, 14, 15.

Table 22

Share of Consumers Making a Transaction, by Type of Transaction

	Monthly			Annual		
	2010 ^r	2011	2012	2010 ^r	2011	2012
Any transaction	98.7	96.3	94.9	98.8	96.3	94.9
Online or electronic	85.9	85.1	84.4	89.1	87.0	86.4
By mail, in person, or by phone	98.0	95.6	94.0	98.0	95.7	94.1
Bill payments	95.9	93.7	92.0	97.5	94.2	92.4
Automatic.....	55.4	56.0	53.8	56.5	56.4	54.3
Direct deduction from income.....	15.4	18.4	14.2	16.4	19.6	15.1
Online.....	62.6	66.4	66.0	67.2	70.5	69.4
By mail, in person, or by phone.....	83.1	81.8	78.2	89.1	87.3	83.9
Non-bill payments	97.1	96.7	93.1	97.3	96.8	93.2
Online or electronic.....	52.3	52.1	54.7	68.9	66.4	66.9
By mail, in person, or by phone.....	96.9	94.2	92.8	96.4	94.2	92.9
Retail goods.....	93.6	94.9	88.2	94.2	95.0	89.3
Services.....	90.4	91.8	84.8	93.0	93.9	87.1
Person to person	56.9	51.5	53.9	70.9	64.7	67.3
Online or electronic.....	15.0	15.8	17.1	21.3	21.8	24.9
By mail, in person, or by phone.....	51.0	47.0	48.9	66.2	61.2	63.4

Notes: 1–4.

Table 23

Share of Consumers Using Payment Instrument, by Type of Transaction

Monthly	Bill Payments			Nonbill payments					
				Online			Non-online*		
	2010 ^r	2011	2012	2010 ^r	2011	2012	2010 ^r	2011	2012
Paper instruments	77.6	76.1	72.0	15.2	16.6	21.0	91.5	88.7	86.7
Cash.....	32.2	35.0	31.3	na	na	na	87.5	84.7	83.3
Check.....	61.8	57.6	55.5	13.3	14.1	17.8	47.4	44.0	40.5
Money order.....	9.7	7.2	7.4	3.3	3.2	4.0	5.6	3.4	3.4
Travelers check.....	na	na	na	na	na	na	na	na	na
Payment cards	na	68.2	68.4	na	40.5	41.7	na	82.5	81.1
Debit.....	42.6	46.1	44.5	23.1	23.4	22.6	59.1	60.2	57.2
Credit or charge card.....	36.5	39.1	38.9	21.9	23.9	23.5	50.8	48.2	50.6
Prepaid.....	na	4.2	4.4	na	2.3	4.0	na	8.8	8.4
Prepaid (4 categories).....	3.5	4.8	na	4.1	2.6	na	6.2	7.0	na
Electronic payments	65.9	66.4	63.9	21.8	20.6	16.1	10.0	10.6	12.5
Online banking bill payment.....	36.0	36.0	34.5	na	na	na	5.7	6.2	7.1
Bank account number payment.....	51.3	51.4	49.5	21.8	20.6	16.1	5.4	6.1	7.8
Other means of payment									
Direct deduction from income.....	15.4	18.4	14.2	na	na	na	na	na	na
Annual	Bill Payments			Nonbill payments					
				Online			Non-online		
	2010 ^r	2011	2012	2010 ^r	2011	2012	2010 ^r	2011	2012
Paper instruments		83.4	80.2	22.6	22.1	27.8	93.4	90.5	88.4
Cash.....	39.2	41.5	36.1	na	na	na	90.5	87.2	85.9
Check.....	70.6	66.1	65.5	19.8	19.2	24.4	58.7	54.5	52.8
Money order.....	12.8	11.6	10.0	5.0	4.7	5.8	7.6	5.6	5.4
Travelers check.....	na	na	na	na	na	na	na	na	na
Payment cards	na	72.5	71.5	na	56.1	56.0	na	84.0	82.2
Debit.....	46.3	48.7	47.5	32.7	32.4	31.4	62.1	62.2	60.1
Credit or charge card.....	41.9	43.5	43.6	36.7	36.4	36.2	56.3	53.0	54.9
Prepaid.....	na	6.7	6.7	na	4.4	6.9	na	13.0	13.4
Prepaid (4 categories).....	4.6	6.8	na	5.1	4.3	na	9.9	9.8	na
Electronic payments	69.5	69.4	66.6	29.9	28.4	24.9	14.6	14.7	18.0
Online banking bill payment.....	37.5	37.2	35.7	na	na	na	7.6	8.1	9.5
Bank account number payment.....	57.5	57.3	54.4	29.9	28.4	24.9	9.1	9.8	12.9
Other means of payment									
Direct deduction from income.....	16.4	19.6	15.1	na	na	na	na	na	na

* Non-online refers to retail goods payments, payments for services, and person-to-person payments.

Notes: 1–4, 14, 15.

Table 24

Share of Consumers Using Payment Instrument, by Type of Bill Payment

Monthly	Automatic			Online			By mail or in person		
	2010 ^r	2011	2012	2010 ^r	2011	2012	2010 ^r	2011	2012
Any instrument	55.4	56.0	53.8	62.6	66.4	66.0	83.1	81.8	78.2
Paper instruments	na	na	na	na	na	na	77.6	76.1	72.0
Cash.....	na	na	na	na	na	na	32.2	35.0	31.3
Check.....	na	na	na	na	na	na	61.8	57.6	55.5
Money order.....	na	na	na	na	na	na	9.7	7.2	7.4
Travelers check.....	na	na	na	na	na	na	na	na	na
Payment cards	36.7	37.9	36.7	39.9	45.7	45.2	na	42.6	41.8
Debit.....	22.1	21.9	20.1	26.3	31.6	30.5	27.0	28.9	25.7
Credit or charge card.....	21.3	24.0	23.8	20.1	22.7	23.3	21.3	21.4	22.0
Prepaid.....	na	na	na	na	na	na	na	4.2	4.4
Prepaid (4 categories).....	na	na	na	na	na	na	3.5	4.8	na
Electronic payments	45.6	46.5	44.8	50.8	50.3	50.3	na	na	na
Online banking bill payment.....	21.2	21.8	20.6	29.4	29.3	28.4	na	na	na
Bank account number payment.....	36.9	37.5	34.5	33.6	32.6	33.5	na	na	na
Other means of payment									
Direct deduction from income.....	15.4	18.4	14.2	na	na	na	na	na	na

Annual	Automatic			Online			By mail or in person		
	2010 ^r	2011	2012	2010 ^r	2011	2012	2010 ^r	2011	2012
Any instrument		56.4	54.3	67.2	70.5	69.4	89.1	87.3	83.9
Paper instruments	na	na	na	na	na	na	85.8	83.4	80.2
Cash.....	na	na	na	na	na	na	39.2	41.5	36.1
Check.....	na	na	na	na	na	na	70.6	66.1	65.5
Money order.....	na	na	na	na	na	na	12.8	11.6	10.0
Travelers check.....	na	na	na	na	na	na	na	na	na
Payment cards	38.5	39.3	38.2	46.0	50.5	49.4	na	48.9	46.4
Debit.....	23.3	22.7	21.6	29.7	34.5	33.2	31.3	32.2	28.8
Credit or charge card.....	24.9	26.4	25.8	25.2	27.5	28.3	25.9	26.4	26.8
Prepaid.....	na	na	na	na	na	na	na	6.7	6.7
Prepaid (4 categories).....	na	na	na	na	na	na	4.6	6.8	na
Electronic payments	48.2	48.1	45.8	55.1	54.6	54.6	na	na	na
Online banking bill payment.....	21.9	22.5	21.6	31.1	31.1	30.3	na	na	na
Bank account number payment.....	40.9	40.4	37.0	40.2	39.2	39.4	na	na	na
Other means of payment									
Direct deduction from income.....	16.4	19.6	15.1	na	na	na	na	na	na

Notes: 1–4, 14, 15.

Table 25

Share of Consumers Using Payment Instrument, by Type of Nonbill, In-Person Transactions

Monthly	Retail			Services and other			Person to person		
	2010 ^r	2011	2012	2010 ^r	2011	2012	2010 ^r	2011	2012
Any instrument	93.6	94.9	88.2	90.4	91.8	84.8	56.9	51.5	53.9
Paper instruments	80.8	77.4	75.2	77.9	72.6	70.0	51.0	47.0	48.9
Cash.....	76.7	73.9	72.7	69.9	66.6	63.6	42.2	39.0	40.5
Check.....	29.4	27.1	23.9	32.0	28.1	25.6	19.0	17.7	17.3
Money order.....	3.5	2.1	2.4	2.9	1.8	2.1	3.3	1.8	1.8
Travelers check.....	na	na	na	na	na	na	na	na	na
Payment cards	na	78.1	77.6	na	70.5	70.5	7.7	8.2	8.6
Debit.....	56.5	56.4	53.8	49.0	48.3	45.8	5.6	6.0	6.4
Credit or charge card.....	46.2	44.3	46.0	42.5	38.9	40.4	3.8	3.2	3.8
Prepaid.....	na	7.7	6.9	na	4.1	5.4	na	na	na
Prepaid (4 categories).....	5.5	5.9	na	4.1	4.0	na	na	na	na
Electronic payments	na	na	na	na	na	na	10.0	10.6	12.5
Online banking bill payment.....	na	na	na	na	na	na	5.7	6.2	7.1
Bank account number payment.....	na	na	na	na	na	na	5.4	6.1	7.8
Other means of payment									
Direct deduction from income.....	na	na	na	na	na	na	na	na	na

Annual	Retail			Services and other			Person to person		
	2010 ^r	2011	2012	2010 ^r	2011	2012	2010 ^r	2011	2012
Any instrument		95.0	89.3	93.0	93.9	87.1	70.9	64.7	67.3
Paper instruments	83.4	80.5	79.6	83.2	77.9	76.0	66.2	61.2	63.4
Cash.....	79.5	77.4	76.8	75.5	72.5	70.7	57.7	53.3	55.4
Check.....	36.7	35.0	32.8	41.4	36.9	34.9	34.4	31.2	32.5
Money order.....	4.8	4.1	3.5	3.9	3.2	2.8	4.4	2.9	2.6
Travelers check.....	na	na	na	na	na	na	na	na	na
Payment cards	na	80.0	79.6	na	76.2	75.1	12.1	12.5	13.6
Debit.....	59.6	59.0	57.2	53.3	52.3	49.7	8.2	8.6	9.9
Credit or charge card.....	51.9	49.6	50.7	49.9	46.5	47.8	6.4	6.1	6.8
Prepaid.....	na	12.0	11.3	na	6.1	8.3	na	na	na
Prepaid (4 categories).....	8.7	8.8	na	6.6	5.7	na	na	na	na
Electronic payments	na	na	na	na	na	na	14.6	14.7	18.0
Online banking bill payment.....	na	na	na	na	na	na	7.6	8.1	9.5
Bank account number payment.....	na	na	na	na	na	na	9.1	9.8	12.9
Other means of payment									
Direct deduction from income.....	na	na	na	na	na	na	na	na	na

Notes: 1–4, 14, 15.

Table 26a

Number of Consumer Payments in a Typical Month, by Type of Asset or Liability

Number per consumer	Mean			Growth rate (%)	
	2010 ^r	2011	2012	10-11	11-12
Total payments	71.9	70.7	68.9	-1.7	-2.5
Assets	58.8	56.3	54.0	-4.2	-4.1
Money (M1)*	57.5	55.0	52.6	-4.5	-4.3
Cash (currency).....	20.6	19.5	18.4	-5.2	-5.5
Travelers check.....	0.0	na	na	—	—
Demand deposit accounts, consumer	36.4	35.1	33.6	-3.4	-4.2
Checks					
Personal.....	7.4	6.9	6.5	-6.0	-5.5
Certified.....	na	na	na	—	—
Debit card.....	22.5	21.6	20.6	-4.2	-4.4
Online banking bill payment.....	3.1	3.3	3.2	3.6	-1.4
Bank account number payment.....	3.3	3.4	3.3	1.5	-3.5
Other deposit accounts.....					
Cashier's check.....	na	na	na	—	—
Other (unknown/unspecified)	1.2	1.3	1.4	6.6	4.5
Direct deduction from income.....	0.6	0.7	0.5	29.6	-26.7
Money order.....	0.6	0.3	0.5	-43.3	52.3
Prepaid.....	0.7	0.7	0.8	5.2	19.0
Prepaid, per adopter†.....	1.8	1.4	1.6	-21.1	16.6
Liabilities	13.1	14.3	14.9	9.6	3.9
Credit or charge card.....	13.1	14.3	14.9	9.6	3.9
Credit.....	na	na	na	—	—
Charge.....	na	na	na	—	—
Text/SMS mobile payment.....	na	na	na	—	—

* For official definition of M1, see Federal Reserve Statistical Release H.6.

† Per adopter estimate is included due to changes in the survey design that affected the rates of adoption of payment instruments (see Table 4), making the per consumer estimates not comparable across years. Estimates are calculated using only adopters of a payment instrument, not all consumers.

Notes: 1–4.

Table 26b**Percentage Share of Consumer Payments in a Typical Month, by Type of Asset or Liability**

Percent share	Share (%)			Change	
	2010 ^r	2011	2012	10-11	11-12
Total payments	100	100	100	—	—
Assets	81.8	79.7	78.4	-2.1	-1.3
Money (M1)*	80.1	77.8	76.4	-2.2	-1.5
Cash (currency).....	28.6	27.6	26.8	-1.0	-0.8
Travelers check.....	0.0	na	na	—	—
Demand deposit accounts, consumer	50.6	49.7	48.8	-0.9	-0.9
Checks					
Personal.....	10.2	9.8	9.5	-0.4	-0.3
Certified.....	na	na	na	—	—
Debit card.....	31.3	30.5	29.9	-0.8	-0.6
Online banking bill payment.....	4.4	4.6	4.7	0.2	0.1
Bank account number payment.....	4.6	4.8	4.7	0.2	0.0
Other deposit accounts.....					
Cashier's check.....	na	na	na	—	—
Other (unknown/unspecified)	1.7	1.9	2.0	0.1	0.1
Direct deduction from income.....	0.8	1.0	0.8	0.3	-0.3
Money order.....	0.8	0.5	0.8	-0.4	0.3
Prepaid.....	0.9	0.8	1.2	-0.1	0.4
Prepaid, per adopter [†]	0.9	0.8	1.2	-0.1	0.4
Liabilities	18.2	20.3	21.6	2.1	1.3
Credit or charge card.....	18.2	20.3	21.6	2.1	1.3
Credit.....	na	na	na	—	—
Charge.....	na	na	na	—	—
Text/SMS mobile payment.....		na	na	—	—

* For official definition of M1, see Federal Reserve Statistical Release H.6.

† Per adopter estimate is included due to changes in the survey design that affected the rates of adoption of payment instruments (see Table 4), making the per consumer estimates not comparable across years. Estimates are calculated using only adopters of a payment instrument, not all consumers.

Notes: 1–4, 14.

Table 27

Consumer Payments in a Typical Month, by Payment Instrument

Number per consumer	Mean			Growth rate (%)	
	2010 ^r	2011	2012	10-11	11-12
Total payments	71.9	70.7	68.9	-1.7	-2.5
Paper instruments	28.6	26.8	25.5	-6.2	-4.7
Cash.....	20.6	19.5	18.4	-5.2	-5.5
Check.....	7.4	6.9	6.5	-6.0	-5.5
Money order.....	0.6	0.3	0.5	-43.3	52.3
Travelers check.....	0.0	na	na	—	—
Payment cards	na	36.5	36.4	—	-0.4
Debit.....	22.5	21.6	20.6	-4.2	-4.4
Credit or charge card.....	13.1	14.3	14.9	9.6	3.9
Prepaid.....	na	0.7	0.8	—	19.0
Prepaid (4 categories).....	0.7	0.5	na	-31.8	—
Prepaid, per adopter*.....	na	1.4	1.6	—	16.6
Prepaid (4 categories), per adopter*.....	1.8	1.6	na	-9.1	—
Electronic payments	6.5	6.6	6.5	2.5	-2.5
Online banking bill payment.....	3.1	3.3	3.2	3.6	-1.4
Bank account number payment.....	3.3	3.4	3.3	1.5	-3.5
Other means of payment					
Direct deduction from income.....	0.6	0.7	0.5	29.6	-26.7

Percentage share	Share (%)			Change	
	2010 ^r	2011	2012	10-11	11-12
Total payments	100	100	100	—	—
Paper instruments	39.7	37.9	37.0	- 1.8	- 0.9
Cash.....	28.6	27.6	26.8	- 1.0	- 0.8
Check.....	10.2	9.8	9.5	- 0.4	- 0.3
Money order.....	0.8	0.5	0.8	- 0.4	0.3
Travelers check.....	0.0	na	na	—	—
Payment cards	50.5	51.7	52.8	1.2	1.1
Debit.....	31.3	30.5	29.9	- 0.8	- 0.6
Credit or charge card.....	18.2	20.3	21.6	2.1	1.3
Prepaid.....	na	0.8	1.2	—	0.4
Prepaid (4 categories).....	0.9	na	na	—	—
Prepaid, per adopter*.....	na	0.8	1.2	—	0.4
Prepaid (4 categories), per adopter*.....	0.9	na	na	—	—
Electronic payments	9.0	9.4	9.4	0.4	0.0
Online banking bill payment.....	4.4	4.6	4.7	0.2	0.1
Bank account number payment.....	4.6	4.8	4.7	0.2	0.0
Other means of payment					
Direct deduction from income.....	0.8	1.0	0.8	0.3	- 0.3

* Per adopter estimate is included due to changes in the survey design that affected the rates of adoption of payment instruments (see Table 4), making the per consumer estimates not comparable across years. Estimates are calculated using only adopters of a payment instrument, not all consumers.

Notes: 1–4, 14, 15.

Table 28

Consumer Payments in a Typical Month, by Type of Payment Transaction

Number per consumer	Mean			Growth rate (%)	
	2010 ^r	2011	2012	10-11	11-12
Total	71.9	70.7	68.9	-1.7	-2.5
Online or electronic	16.3	16.9	17.8	3.7	5.0
By mail, in person, or by phone.....	55.6	53.7	51.1	-3.3	-4.9
Bill payments	21.0	22.6	22.0	7.4	-2.6
Automatic.....	6.0	6.6	6.1	8.7	-6.6
Direct deduction from income.....	0.6	0.7	0.5	29.6	-26.7
Other automatic.....	5.5	5.8	5.6	6.5	-4.0
Online.....	5.8	6.2	6.7	6.9	8.0
By mail, in person, or by phone.....	9.2	9.8	9.2	6.8	-6.7
Non-bill payments	50.9	48.1	46.9	-5.4	-2.4
Retail and services	46.7	44.8	43.6	-4.1	-2.7
Online or electronic.....	3.6	3.5	4.1	-2.6	17.5
By mail, in person, or by phone.....	43.1	41.3	39.5	-4.2	-4.4
Retail goods.....	25.1	25.6	24.1	2.1	-5.7
Services.....	18.0	15.7	15.4	-12.8	-2.2
Person to person	4.2	3.3	3.3	-20.8	0.6
Online or electronic.....	0.9	0.7	0.9	-23.6	23.7
By mail, in person, or by phone.....	3.3	2.6	2.5	-19.9	-5.7
Percentage share				Change	
	2010 ^r	2011	2012	10-11	11-12
Total	100	100	100	—	—
Online or electronic	22.7	24.0	25.8	1.3	1.8
By mail, in person, or by phone.....	77.3	76.0	74.2	-1.2	-1.8
Bill payments	29.2	31.9	31.9	2.7	0.0
Automatic.....	8.4	9.3	8.9	0.9	-0.4
Direct deduction from income.....	0.8	1.0	0.8	0.3	-0.3
Other automatic.....	7.6	8.2	8.1	0.6	-0.1
Online.....	8.1	8.8	9.7	0.7	0.9
By mail, in person, or by phone.....	12.8	13.9	13.3	1.1	-0.6
Non-bill Payments	70.8	68.1	68.1	-2.7	0.0
Retail and services	64.9	63.4	63.3	-1.6	-0.1
Online or electronic.....	5.0	4.9	6.0	0.0	1.0
By mail, in person, or by phone.....	59.9	58.4	57.3	-1.5	-1.1
Retail goods.....	34.9	36.2	35.0	1.3	-1.2
Services.....	25.1	22.2	22.3	-2.8	0.1
Person to person	5.8	4.7	4.8	-1.1	0.1
Online or electronic.....	1.3	1.0	1.3	-0.3	0.3
By mail, in person, or by phone.....	4.5	3.7	3.6	-0.8	-0.1

Notes: 1–4.

Table 29

Use of Payment Instruments in a Typical Month, by Type of Transaction

Number per consumer	Bill payments			Nonbill payments					
				Online			Non-online*		
	2010 ^r	2011	2012	2010 ^r	2011	2012	2010 ^r	2011	2012
Paper instruments	5.7	6.1	5.4	0.6	0.7	0.9	22.2	20.0	19.2
Cash.....	2.3	2.9	2.2	na	na	na	18.3	16.6	16.2
Check.....	3.2	3.1	2.9	0.5	0.6	0.8	3.7	3.3	2.8
Money order.....	0.3	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.2
Travelers check.....	na	na	na	na	na	na	na	na	na
Payment cards	na	10.1	10.5	na	2.2	2.7	na	24.2	23.2
Debit.....	6.1	6.1	6.2	1.2	1.1	1.3	15.2	14.4	13.1
Credit or charge card.....	3.1	3.9	4.2	0.8	1.0	1.3	9.2	9.4	9.4
Prepaid.....	na	0.1	0.1	na	0.1	0.1	na	0.5	0.6
Prepaid (4 categories).....	0.1	0.1	na	0.1	0.1	na	0.4	0.3	na
Electronic payments	5.3	5.6	5.5	0.8	0.7	0.5	0.3	0.4	0.4
Online banking bill payment.....	2.9	3.0	3.0	na	na	na	0.2	0.2	0.3
Bank account number payment.....	2.4	2.6	2.6	0.8	0.7	0.5	0.1	0.2	0.2
Other methods of payment									
Direct deduction from income.....	0.6	0.7	0.5	na	na	na	na	na	na
Percentage share	Bill payments			Nonbill payments					
				Online			Non-online		
	2010 ^r	2011	2012	2010 ^r	2011	2012	2010 ^r	2011	2012
Paper instruments	8.0	8.7	7.8	0.9	0.9	1.3	30.8	28.3	27.9
Cash.....	3.2	4.1	3.3	na	na	na	25.4	23.5	23.5
Check.....	4.4	4.4	4.2	0.7	0.8	1.2	5.1	4.6	4.1
Money order.....	0.4	0.2	0.3	0.1	0.1	0.1	0.3	0.2	0.3
Travelers check.....	na	na	na	na	na	na	na	na	na
Payment cards	13.0	14.3	15.3	3.0	3.1	3.9	34.5	34.3	33.6
Debit.....	8.5	8.6	9.0	1.7	1.6	1.9	21.1	20.3	19.1
Credit or charge card.....	4.3	5.6	6.1	1.1	1.4	1.9	12.8	13.4	13.7
Prepaid.....	na	0.2	0.2	na	0.1	0.2	na	0.6	0.9
Prepaid (4 categories).....	0.1	na	na	0.2	na	na	0.6	na	na
Electronic payments	7.4	7.9	8.0	1.1	1.0	0.7	0.5	0.5	0.6
Online banking bill payment.....	4.1	4.3	4.3	na	na	na	0.3	0.3	0.4
Bank account number payment.....	3.3	3.6	3.7	1.1	1.0	0.7	0.2	0.2	0.3
Other methods of payment									
Direct deduction from income.....	0.8	1.0	0.8	na	na	na	na	na	na

* Non-online refers to retail goods payments, payments for services, and person-to-person payments.

Notes: 1–4, 14, 15.

Table 30

Use of Payment Instruments in a Typical Month, by Type of Bill Payment

Number per consumer	Automatic			Online			By mail, in person, or by phone		
	2010 ^r	2011	2012	2010 ^r	2011	2012	2010 ^r	2011	2012
Paper instruments	na	na	na	na	na	na	5.7	6.1	5.4
Cash.....	na	na	na	na	na	na	2.3	2.9	2.2
Check.....	na	na	na	na	na	na	3.2	3.1	2.9
Money order.....	na	na	na	na	na	na	0.3	0.1	0.2
Travelers check.....	na	na	na	na	na	na	na	na	na
Payment cards	3.2	3.3	3.2	2.7	3.1	3.5	na	3.7	3.8
Debit.....	2.0	1.8	1.7	1.9	2.1	2.3	2.2	2.1	2.2
Credit or charge card.....	1.2	1.5	1.5	0.8	1.0	1.2	1.1	1.5	1.5
Prepaid.....	na	na	na	na	na	na	na	0.1	0.1
Prepaid (4 categories).....	na	na	na	na	na	na	0.1	0.1	na
Electronic payments	2.3	2.5	2.4	3.1	3.1	3.2	na	na	na
Online banking bill payment.....	1.1	1.1	1.1	1.8	1.9	1.8	na	na	na
Bank account number payment.....	1.1	1.4	1.3	1.2	1.2	1.3	na	na	na
Other means of payment									
Direct deduction from income.....	0.6	0.7	0.5	na	na	na	na	na	na

Percentage share	Automatic			Online			By mail, in person, or by phone		
	2010 ^r	2011	2012	2010 ^r	2011	2012	2010 ^r	2011	2012
Paper instruments	na	na	na	na	na	na	8.0	8.7	7.8
Cash.....	na	na	na	na	na	na	3.2	4.1	3.3
Check.....	na	na	na	na	na	na	4.4	4.4	4.2
Money order.....	na	na	na	na	na	na	0.4	0.2	0.3
Travelers check.....	na	na	na	na	na	na	na	na	na
Payment cards	4.4	4.7	4.7	3.8	4.4	5.1	4.8	5.2	5.5
Debit.....	2.8	2.6	2.5	2.7	3.0	3.4	3.1	3.0	3.2
Credit or charge card.....	1.7	2.1	2.2	1.1	1.4	1.7	1.6	2.1	2.1
Prepaid.....	na	na	na	na	na	na	na	0.2	0.2
Prepaid (4 categories).....	na	na	na	na	na	na	0.1	na	na
Electronic payments	3.1	3.5	3.4	4.3	4.4	4.6	na	na	na
Online banking bill payment.....	1.6	1.6	1.6	2.5	2.7	2.7	na	na	na
Bank account number payment.....	1.6	1.9	1.8	1.7	1.7	1.9	na	na	na
Other means of payment									
Direct deduction from income.....	0.8	1.0	0.8	na	na	na	na	na	na

Notes: 1–4, 14, 15.

Table 31

Use of Payment Instruments in a Typical Month, by Type of Nonbill, In-Person Transactions

Number per consumer	Retail			Services and other			Person to person		
	2010 ^r	2011	2012	2010 ^r	2011	2012	2010 ^r	2011	2012
Paper instruments	10.6	10.3	10.0	8.3	7.0	6.8	3.3	2.6	2.5
Cash.....	9.0	8.8	8.7	6.7	5.8	5.6	2.6	2.0	1.9
Check.....	1.5	1.5	1.2	1.5	1.2	1.1	0.6	0.5	0.5
Money order.....	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.0
Travelers check.....	na	na	na	na	na	na	na	na	na
Payment cards	na	15.2	14.1	na	8.7	8.6	0.6	0.3	0.4
Debit.....	9.0	9.1	8.2	5.8	5.0	4.7	0.4	0.2	0.3
Credit or charge card.....	5.3	5.9	5.6	3.7	3.5	3.7	0.2	0.1	0.1
Prepaid.....	na	0.4	0.4	na	0.2	0.3	na	na	na
Prepaid (4 categories).....	0.3	0.2	na	0.2	0.1	na	na	na	na
Electronic payments	na	na	na	na	na	na	0.3	0.4	0.4
Online banking bill payment.....	na	na	na	na	na	na	0.2	0.2	0.3
Bank account number payment.....	na	na	na	na	na	na	0.1	0.2	0.2
Other means of payment									
Direct deduction from income.....	na	na	na	na	na	na	na	na	na

Percentage share	Retail			Services and other			Person to person		
	2010 ^r	2011	2012	2010 ^r	2011	2012	2010 ^r	2011	2012
Paper instruments	14.7	14.6	14.5	11.6	10.0	9.8	4.5	3.7	3.6
Cash.....	12.5	12.5	12.6	9.4	8.2	8.1	3.6	2.9	2.8
Check.....	2.1	2.1	1.8	2.1	1.7	1.6	0.9	0.8	0.7
Money order.....	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1
Travelers check.....	na	na	na	na	na	na	na	na	na
Payment cards	20.2	21.6	20.5	13.5	12.3	12.5	0.8	0.5	0.6
Debit.....	12.5	12.9	11.8	8.1	7.1	6.8	0.5	0.3	0.5
Credit or charge card.....	7.3	8.3	8.2	5.1	4.9	5.3	0.3	0.1	0.2
Prepaid.....	na	0.4	0.5	na	0.2	0.4	na	na	na
Prepaid (4 categories).....	0.4	na	na	0.2	na	na	na	na	na
Electronic payments	na	na	na	na	na	na	0.5	0.5	0.6
Online banking bill payment.....	na	na	na	na	na	na	0.3	0.3	0.4
Bank account number payment.....	na	na	na	na	na	na	0.2	0.2	0.3
Other means of payment									
Direct deduction from income.....	na	na	na	na	na	na	na	na	na

Notes: 1–4, 14, 15.

Table 32**Payment Instruments Used in a Typical Period, by Type of Instrument and Transaction**

Mean number per consumer

Typical month	2010 ^r	2011	2012
All payments (9 instruments available)	na	3.8	3.8
Paper instruments.....	1.7	1.6	1.6
Payment cards.....	na	1.3	1.3
Electronic payments.....	0.9	0.9	0.9
Bill payments (8 instruments available)[†]	2.9	3.0	2.8
Paper instruments.....	1.0	1.0	0.9
Payment cards.....	0.8	0.9	0.9
Electronic payments.....	0.9	0.9	0.8
Online payments (6 instruments available)[‡]	0.9	0.9	0.9
Paper instruments.....	0.2	0.2	0.2
Payment cards.....	0.5	0.5	0.5
Electronic payments.....	0.2	0.2	0.2
In-person payments (8 instruments available)**	2.7	2.4	2.3
Paper instruments.....	1.4	1.2	1.2
Payment cards.....	1.2	1.2	1.2
Electronic payments.....	0.1	0.1	0.1
Typical year	2010 ^r	2011	2012
All payments (9 instruments available)	na	4.1	4.1
Paper instruments.....	1.9	1.8	1.7
Payment cards.....	na	1.4	1.4
Electronic payments.....	1.0	1.0	1.0
Bill payments (8 instruments available)[†]	3.3	3.3	3.1
Paper instruments.....	1.2	1.2	1.1
Payment cards.....	0.9	1.0	1.0
Electronic payments.....	0.9	0.9	0.9
Online payments (6 instruments available)[‡]	1.3	1.3	1.3
Paper instruments.....	0.2	0.2	0.3
Payment cards.....	0.7	0.7	0.7
Electronic payments.....	0.3	0.3	0.2
In-person payments (8 instruments available)**	3.0	2.6	2.6
Paper instruments.....	1.6	1.4	1.3
Payment cards.....	1.3	1.3	1.3
Electronic payments.....	0.2	0.2	0.2

[†] Travelers checks are not presented to the respondent as an option for payment instrument for bill payments.[‡] Cash, travelers check, and OBBP are not presented to the respondent as an option for payment instruments for online payments.

** OBBP is not presented to the respondent as a payment instrument for in-person payments.

Notes: 1–4, 6.

Table 33**Loss, Theft, or Fraudulent Use of Payment Instrument**

Percentage of consumers or adopters and mean dollar value

Percentage of consumers	2010 ^r	2011	2012
Incidence in past 12 months	13.3	15.2	15.6
Cash.....	7.3	9.8	9.1
Checks.....	1.5	0.6	1.0
Credit card.....	3.7	3.6	4.1
Debit card.....	4.7	5.2	6.1
Percentage of adopters	2010 ^r	2011	2012
Incidence in past 12 months	13.3	15.2	15.8
Cash.....	7.3	9.8	9.1
Checks.....	1.7	0.7	1.2
Credit card.....	5.2	5.2	5.7
Debit card.....	6.1	6.8	7.8
Mean dollar value*	2010 ^r	2011	2012
Amount lost or stolen			
Cash.....	393	286	411
Amount of fraudulent charges†			
Checks.....	s	s	s
Credit card.....	600	467	653
Debit card.....	370	148	202
Amount liable for fraudulent charges			
Checks.....	na	na	s
Credit card.....		na	s
Debit card.....	na	na	s
Percentage of consumers reporting zero liability for fraudulent charges			
Checks.....	na	na	na
Credit card.....	na	na	na
Debit card.....	na	na	na

* For each payment instrument listed, the value is the average amount for all consumers who experienced loss, theft, or fraud of that instrument over the past 12 months.

† The amount of fraudulent charges may not be the actual amount of the loss borne by consumers. Actual consumer loss depends on the policies of depository institutions and card network agreements.

Notes: 1–5, 17.

Table 34**Importance Rankings of Characteristics of Payment Instruments**

Percentage of consumers

2010 ^r	Most important	2nd most	3rd most	4th most	5th most	Least important
Characteristics						
Acceptance for payment.....	21.7	19.3	20.1	16.0	12.8	10.1
Acquisition and setup.....	9.3	9.8	10.4	15.1	19.8	35.6
Convenience.....	27.3	21.1	18.8	16.4	11.0	5.4
Cost.....	23.9	22.7	15.1	17.1	12.4	8.9
Payment records.....	15.1	16.5	18.0	20.0	16.9	13.4
Security.....	47.7	23.4	13.4	8.9	5.2	1.4
2011	Most important	2nd most	3rd most	4th most	5th most	Least important
Characteristics						
Acceptance for payment.....	22.7	17.7	18.6	16.1	14.5	10.3
Acquisition and setup.....	9.7	7.2	12.3	13.2	17.5	40.0
Convenience.....	27.8	19.5	19.3	14.9	11.4	7.1
Cost.....	24.5	22.5	16.4	14.4	13.5	8.7
Payment records.....	15.8	18.8	17.3	20.0	16.6	11.5
Security.....	50.6	19.4	14.4	8.6	4.5	2.6
2012	Most important	2nd most	3rd most	4th most	5th most	Least important
Characteristics						
Acceptance for payment.....	na	na	na	na	na	na
Acquisition and setup.....	na	na	na	na	na	na
Convenience.....	na	na	na	na	na	na
Cost.....	na	na	na	na	na	na
Payment records.....	na	na	na	na	na	na
Security.....	na	na	na	na	na	na

Notes: 1, 4.

Table 35a

Assessments of Payment Instruments: Acceptance for Payment

Percentage of consumers

	Rarely accepted	Occasionally accepted	Often accepted	Usually accepted	Almost always accepted
Cash					
2010.....	2.4	1.6	7.4	13.1	75.4
2011.....	1.7	2.5	7.7	11.7	76.3
2012.....	1.9	1.7	6.6	14.0	75.8
Check					
2010.....	2.9	14.3	32.3	33.9	16.6
2011.....	4.5	15.4	28.4	35.2	16.5
2012.....	3.5	16.1	27.4	35.0	17.9
Debit card					
2010.....	1.2	1.4	10.2	36.2	50.9
2011.....	2.3	2.0	11.3	36.4	48.1
2012.....	1.4	1.1	9.7	29.7	58.0
Credit card					
2010.....	1.5	1.4	6.3	32.2	58.5
2011.....	1.8	1.4	7.5	33.8	55.5
2012.....	1.2	0.8	6.5	26.1	65.3
Prepaid card					
2010.....	3.8	8.5	25.4	31.2	31.1
2011.....	5.3	8.8	23.7	32.8	29.4
2012.....	3.8	6.2	21.3	32.4	36.3
Bank account number payment					
2010.....	28.8	22.8	24.9	14.2	9.2
2011.....	25.6	25.8	23.2	15.2	10.2
2012.....	25.5	25.7	18.9	16.5	13.4
Online banking bill payment					
2010.....	9.5	10.2	26.6	27.3	26.3
2011.....	8.2	12.3	25.3	27.8	26.3
2012.....	6.7	11.2	24.7	29.8	27.6

Notes: 1, 4.

Table 35b

Assessments of Payment Instruments: Acquisition and Setup

Percentage of consumers

	Very hard to get or set up	Hard to get or set up	Neither hard nor easy	Easy to get or set up	Very easy to get or set up
Cash					
2010.....	2.0	5.5	13.3	20.6	58.7
2011.....	2.4	5.1	13.7	19.5	59.2
2012.....	1.6	3.1	16.7	17.9	60.6
Check					
2010.....	2.1	7.8	25.4	38.3	26.3
2011.....	2.3	8.6	24.6	39.9	24.6
2012.....	2.4	8.7	25.5	37.0	26.3
Debit card					
2010.....	1.8	4.1	19.7	41.3	33.1
2011.....	1.4	4.1	21.7	40.6	32.2
2012.....	1.1	5.0	20.7	38.4	34.8
Credit card					
2010.....	5.0	10.4	20.3	36.8	27.5
2011.....	4.0	11.3	21.5	36.0	27.2
2012.....	4.0	11.3	21.1	35.3	28.3
Prepaid card					
2010.....	5.4	13.7	35.7	26.3	18.8
2011.....	4.6	15.4	35.7	26.5	17.9
2012.....	4.5	13.8	32.3	27.9	21.4
Bank account number payment					
2010.....	4.9	14.8	31.8	28.6	20.0
2011.....	3.9	15.4	35.3	30.1	15.4
2012.....	3.8	14.2	31.8	31.9	18.3
Online banking bill payment					
2010.....	6.0	13.5	29.6	28.2	22.6
2011.....	3.6	14.8	29.3	31.4	20.9
2012.....	2.8	13.2	26.2	36.3	21.6

Notes: 1, 4.

Table 35c

Assessments of Payment Instruments: Convenience

Percentage of consumers

	Very Inconvenient	Inconvenient	Neither inconvenient nor convenient	Convenient	Very Convenient
Cash					
2010.....	5.5	9.9	14.7	25.8	44.0
2011.....	6.0	11.6	15.2	24.1	43.1
2012.....	3.6	8.5	12.3	25.7	49.8
Check					
2010.....	10.3	23.7	21.8	28.7	15.5
2011.....	9.1	24.4	22.8	29.3	14.5
2012.....	8.3	20.6	26.1	31.0	14.1
Debit card					
2010.....	3.1	2.4	10.3	30.2	54.0
2011.....	3.4	3.2	10.5	31.3	51.6
2012.....	2.0	3.2	9.1	29.2	56.5
Credit card					
2010.....	3.7	2.8	9.6	30.3	53.6
2011.....	3.6	3.4	10.5	30.7	51.8
2012.....	2.6	2.3	8.7	29.2	57.3
Prepaid card					
2010.....	9.1	14.9	28.2	24.3	23.5
2011.....	10.0	14.5	29.8	24.1	21.6
2012.....	8.6	13.9	28.3	24.5	24.8
Bank account number payment					
2010.....	15.5	21.2	30.0	19.4	13.9
2011.....	13.9	21.5	31.1	19.6	13.9
2012.....	11.9	20.9	30.1	24.0	13.2
Online banking bill payment					
2010.....	6.2	6.7	18.5	27.0	41.6
2011.....	6.8	6.6	19.7	28.3	38.6
2012.....	4.0	6.0	18.8	29.8	41.4

Notes: 1, 4.

Table 35d**Assessments of Payment Instruments: Cost**

Percentage of consumers

	Very high cost	High cost	Neither high nor low cost	Low cost	Very low cost
Cash					
2010.....	0.7	2.0	16.3	9.5	71.5
2011.....	2.2	2.5	15.1	8.0	72.2
2012.....	1.1	1.3	17.4	10.0	70.3
Check					
2010.....	1.7	6.7	21.5	42.3	27.8
2011.....	1.9	7.6	19.5	41.0	30.1
2012.....	1.7	8.3	23.0	38.2	28.8
Debit card					
2010.....	1.6	7.0	22.3	34.5	34.6
2011.....	2.5	11.1	20.2	33.8	32.5
2012.....	1.4	6.9	22.2	27.9	41.6
Credit card					
2010.....	18.2	28.1	19.5	17.8	16.4
2011.....	17.6	31.1	16.7	18.4	16.2
2012.....	18.3	28.4	18.5	17.8	17.1
Prepaid card					
2010.....	4.4	14.1	37.6	22.1	21.8
2011.....	6.2	16.2	35.0	23.3	19.3
2012.....	5.5	16.7	34.4	22.8	20.6
Bank account number payment					
2010.....	3.1	5.0	38.7	23.2	30.0
2011.....	3.0	5.1	32.5	27.2	32.2
2012.....	2.8	3.9	29.6	26.7	37.0
Online banking bill payment					
2010.....	2.7	4.2	28.5	25.1	39.4
2011.....	3.0	4.7	26.5	23.3	42.5
2012.....	1.9	3.5	23.0	24.4	47.2

Notes: 1, 4.

Table 35e

Assessments of Payment Instruments: Payment Records

Percentage of consumers

	Very poor records	Poor records	Neither good nor poor	Good records	Very good records
Cash					
2010.....	36.8	21.6	20.8	10.7	10.2
2011.....	40.5	21.7	18.0	10.4	9.3
2012.....	37.8	24.9	17.9	10.8	8.7
Check					
2010.....	0.6	3.1	11.0	46.2	39.0
2011.....	2.3	3.4	9.3	43.4	41.6
2012.....	1.7	3.6	13.3	43.7	37.7
Debit card					
2010.....	1.7	4.0	13.1	41.7	39.5
2011.....	2.6	4.0	13.0	40.2	40.2
2012.....	1.9	4.0	14.3	36.0	43.8
Credit card					
2010.....	1.3	2.7	8.5	38.1	49.3
2011.....	2.1	2.8	8.4	38.8	47.9
2012.....	1.8	2.7	10.4	34.1	51.1
Prepaid card					
2010.....	19.6	18.7	34.7	16.8	10.2
2011.....	19.9	21.9	30.3	18.4	9.5
2012.....	17.9	23.0	34.6	14.1	10.4
Bank account number payment					
2010.....	3.2	5.2	21.1	36.9	33.5
2011.....	3.1	4.5	21.5	35.8	35.1
2012.....	3.5	5.1	19.2	34.2	38.1
Online banking bill payment					
2010.....	2.2	2.8	14.2	35.9	44.9
2011.....	3.0	3.0	13.9	34.8	45.2
2012.....	2.2	2.6	15.8	31.5	47.8

Notes: 1, 4.

Table 35f**Assessments of Payment Instruments: Security**

Percentage of consumers

	Very risky	Risky	Neither risky nor secure	Secure	Very secure
Cash					
2010.....	37.3	16.8	11.9	9.1	24.8
2011.....	38.0	18.7	10.5	9.6	23.3
2012.....	34.0	15.3	14.3	11.6	24.8
Check					
2010.....	7.6	34.4	22.3	26.4	9.2
2011.....	7.7	32.4	20.7	30.9	8.3
2012.....	7.9	27.8	25.1	29.4	9.7
Debit card					
2010.....	9.2	28.6	18.0	32.2	12.1
2011.....	10.9	30.0	18.9	29.4	10.8
2012.....	8.8	23.5	18.5	37.0	12.3
Credit card					
2010.....	11.8	26.1	15.3	33.1	13.7
2011.....	11.0	26.1	16.9	32.8	13.1
2012.....	9.3	20.4	16.3	37.7	16.3
Prepaid card					
2010.....	21.1	23.2	25.4	18.8	11.5
2011.....	21.8	24.2	25.7	16.1	12.1
2012.....	18.6	21.5	27.2	20.3	12.4
Bank account number payment					
2010.....	23.8	31.0	17.4	18.5	9.2
2011.....	22.2	30.6	18.3	19.7	9.2
2012.....	21.1	25.8	18.5	24.2	10.4
Online banking bill payment					
2010.....	12.1	20.9	20.1	30.9	16.0
2011.....	11.8	20.9	19.9	30.4	17.0
2012.....	8.9	20.1	19.6	34.6	16.8

Notes: 1, 4.

Table 35g**Assessments of Payment Locations: Security**

Percentage of consumers

	Survey year	Very risky	Risky	Neither risky nor secure	Secure	Very secure
In person	2010.....	0.2	2.0	8.5	26.3	63.0
	2011.....	1.2	2.6	8.3	24.3	63.6
	2012.....	0.6	2.0	9.7	28.0	59.8
Online	2010.....	11.2	25.2	14.6	38.8	10.2
	2011.....	8.5	27.8	17.5	34.8	11.3
	2012.....	na	na	na	na	na
Mail	2010.....	7.6	25.7	27.5	34.4	4.9
	2011.....	7.3	24.7	32.2	29.8	6.0
	2012.....	3.2	18.7	31.3	37.4	9.4
Landline phone	2010.....	9.9	32.3	27.2	25.7	4.9
	2011.....	7.1	29.4	29.5	26.8	7.2
	2012.....	3.8	18.2	30.8	34.2	13.0
Laptop internet access	2010.....	na	na	na	na	na
	2011.....	na	na	na	na	na
	2012.....	4.3	20.7	22.5	42.0	10.5
Laptop voice calling	2010.....	na	na	na	na	na
	2011.....	na	na	na	na	na
	2012.....	9.6	35.9	32.8	17.1	4.5
Mobile phone	2010.....	18.0	37.9	26.3	15.0	2.8
	2011.....	20.8	37.1	24.3	13.6	4.3
	2012.....	na	na	na	na	na
Mobile phone internet access	2011.....	na	na	na	na	na
	2012.....	10.5	33.8	29.2	21.8	4.8
Mobile phone voice calling	2010.....	na	na	na	na	na
	2011.....	na	na	na	na	na
	2012.....	11.2	32.3	29.1	22.1	5.4
Mobile phone texting	2010.....	na	na	na	na	na
	2011.....	na	na	na	na	na
	2012.....	18.9	39.6	25.9	12.8	2.8
Tablet internet access	2010.....	na	na	na	na	na
	2011.....	na	na	na	na	na
	2012.....	7.0	27.8	31.8	27.3	6.1
Tablet voice calling	2010.....	na	na	na	na	na
	2011.....	na	na	na	na	na
	2012.....	14.6	36.1	32.8	13.8	2.7

Notes: 1, 2, 4.

Table 35h**Assessment of Debit Authorization Mode**

Percentage of consumers

	Security	Very risky	Risky	Neither risky nor secure	Secure	Very secure
PIN debit card						
2010.....		5.3	14.9	16.1	40.6	23.2
2011.....		5.1	13.8	13.9	42.6	24.6
2012.....		4.7	13.8	14.0	43.5	24.1
Signature debit card						
2010.....		3.8	16.6	28.2	37.3	14.1
2011.....		3.0	19.2	24.9	38.5	14.4
2012.....		3.6	16.8	26.7	37.5	15.4
No PIN and no signature debit card						
2010.....		41.4	34.3	13.5	7.4	3.4
2011.....		42.8	33.7	14.1	6.6	2.9
2012.....		38.9	36.5	15.0	6.2	3.3
Using a debit card online						
2010.....		20.1	37.5	21.8	17.0	3.6
2011.....		20.6	39.4	19.2	16.2	4.6
2012.....		19.5	37.2	21.7	17.5	4.1

Notes: 1, 2, 4.

Table 35i**Preferred Way of Authorizing Debit Card Payments**

Percentage of consumers

	2010	2011	2012
PIN.....	45.9	52.7	53.6
Signature.....	30.4	22.2	23.5
Either one is fine/I'm indifferent.....	19.6	22.0	22.9
Neither one/ I prefer not to enter a PIN or give my signature.....	4.2	3.1	na

Notes: 1, 2, 4.

Table 36**Demographics: Gender, Age, Race, Ethnicity, and Education**

Percentage of consumers, except where noted*

	2010 ^r	2011	2012
U.S. Population age 18 + older (millions)	228.9	230.9	234.4
Number of survey respondents	2,102	2,151	2,065
Gender			
Male.....	48.4	48.4	48.1
Female.....	51.6	51.6	51.9
Age			
18–24.....	8.0	7.5	6.2
25–34.....	22.9	24.4	24.5
35–44.....	16.7	15.2	15.5
45–54.....	19.2	19.7	19.1
55–64.....	16.0	16.0	16.4
65 and older.....	17.2	17.2	18.3
Race			
White.....	73.2	75.2	73.6
Black.....	15.6	13.6	14.6
Asian.....	2.7	2.5	2.8
Other.....	8.4	8.7	9.0
Ethnicity			
Hispanic or Latino.....	12.8	14.2	14.3
Education			
No high school diploma.....	5.1	7.5	7.1
High school.....		36.5	35.1
Some college.....	28.3	28.3	28.8
College.....	15.2	16.1	16.5
Post-graduate study.....	12.5	11.6	12.5

* Estimates are weighted. The table of unweighted sample demographics is available upon request.

Notes: 1, 4.

Table 37**Income and Labor Force Status**

Percentage of consumers*

	2010 ^r	2011	2012
Household income			
Less than \$25,000.....	24.4	24.9	22.9
\$25,000–\$49,999.....	27.4	25.0	25.2
\$50,000–\$74,999.....	21.1	19.0	18.7
\$75,000–\$99,999.....	12.1	12.3	13.2
\$100,000–\$124,999.....	7.4	8.4	8.8
\$125,000 or more.....	7.6	10.4	11.1
\$125,000–\$199,999.....	4.9	7.5	8.1
\$200,000 or more.....	2.7	2.9	3.0
Respondent income			
Highest in household.....	49.5	51.8	51.4
About equal with highest.....	13.9	12.1	13.3
2nd highest.....	25.4	25.5	25.5
3rd highest or lower.....	11.3	10.6	9.8
Labor force status			
Working now.....	62.5	60.8	60.6
Unemployed and looking for work [†]	9.4	10.0	9.3
Temporarily laid off, on sick or other leave.....	1.2	1.0	0.8
Disabled.....	6.9	7.4	7.8
Retired.....	18.7	18.6	19.2
Homemaker.....	9.5	10.3	10.1
Other.....	2.9	2.8	2.9

* Estimates are weighted. The table of unweighted sample demographics is available upon request.

† The number for unemployment differs from the official BLS numbers because of differences between the ALP and the BLS in the methodologies for collecting the data and computing the unemployment rate.

Notes: 1, 4.

Table 38**Consumers' Financial Responsibility in the Household**

Percentage of consumers

	2010 ^r	2011	2012
Budgeting			
All.....	44.3	na	na
Most.....	12.6	na	na
Shared equally.....	22.5	na	na
Some.....	10.6	na	na
None.....	10.0	na	na
Bill payment			
All.....	48.2	53.4	52.9
Most.....	10.6	7.5	7.6
Shared equally.....	16.3	13.2	15.0
Some.....	13.4	11.5	9.4
None.....	11.5	14.5	15.1
Shopping			
All.....	37.4	41.0	38.6
Most.....	16.1	14.9	14.7
Shared equally.....	22.6	20.5	22.8
Some.....	17.4	14.8	15.3
None.....	6.5	8.9	8.5
Asset management			
All.....	37.5	na	na
Most.....	10.7	na	na
Shared equally.....	23.4	na	na
Some.....	8.8	na	na
None.....	19.6	na	na
Saving and investing			
All.....	na	37.1	35.2
Most.....		12.4	13.5
Shared equally.....	na	30.6	30.7
Some.....	na	9.3	10.0
None.....	na	10.5	10.5
Other			
All.....	na	37.8	36.8
Most.....	na	14.3	14.6
Shared equally.....	na	30.5	30.2
Some.....	na	7.8	9.9
None.....	na	9.7	8.5

Notes: 1, 2, 4.

Table 39**Selected Assets and Liabilities**

Percentage of consumers, except as noted

	2010*	2011	2012
Home ownership			
Home ownership rate	65.3	64.5	65.3
Credit card debt			
Carried unpaid balance at any time during the past 12 months	38.7	39.3	38.9
Mean credit card balance unpaid, previous month (dollars)			
Per credit card adopter.....	4,149	4,349	3,931
Per adopter with unpaid balance.....	7,537	7,746	7,292
Median credit card balance unpaid, previous month (dollars)			
Per credit card adopter.....	149	195	84
Per adopter with unpaid balance.....	3,230	3,461	3,114
Change in unpaid balance since a year ago			
Much lower.....	13.4	13.1	14.2
Lower.....	28.8	27.9	24.0
About the same.....	31.7	30.4	29.4
Higher.....	17.2	19.2	20.7
Much higher.....	8.9	9.6	11.7
Paid interest rate, card with largest balance			
0%.....	na	na	10.7
0.01–5.00.....	na	na	5.5
5.01–10.00.....	na	na	19.9
10.01–15.00.....	na	na	23.8
15.01–20.00.....	na	na	19.0
20.01–25.00.....	na	na	9.7
25.01–30.00.....	na	na	4.3
30.01–35.00.....	na	na	0.2
More than 35%.....	na	na	0.1
I don't know.....	na	na	5.9

Notes: 1, 2, 4.