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# The 2014 Survey of Consumer Payment Choice: Summary Results

Claire Greene, Scott Schuh, and Joanna Stavins

#### **Abstract:**

In 2014, the average number of U.S. consumer payments per consumer per month decreased to 66.1, in a statistically insignificant decline from 67.9 in 2013. The number of payments made by paper check continued to decline, falling by 0.7 to 5.0 checks per month, while the number of electronic payments (online banking bill payments, bank account number payments, and deductions from income) increased by 0.6 to 6.9 of these payments per month. The monthly shares of debit cards (31.1 percent), cash (25.6 percent), and credit cards (23.3 percent) continued to be largest; while the share of electronic payments rose a significant 1.2 percentage points to 10.5 percent. Consumers' average cash holdings dropped by about 10 percent to \$207 in 2014. The number of cash withdrawals made by consumers per month also declined by about one withdrawal per month to 5.6. There was no significant change in cash use, however. About half of 1 percent of U.S. consumers held bitcoin or other virtual currencies. The 2014 SCPC includes a formal measure of "underbanked" consumers for the first time.

**Keywords:** cash, checks, checking accounts, debit cards, credit cards, prepaid cards, electronic payments, payment preferences, unbanked, Survey of Consumer Payment Choice

# 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 <a href="http://www.bostonfed.org/economic/rdr/index.htm">http://www.bostonfed.org/economic/rdr/index.htm</a>.

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 2014 Survey of Consumer Payment Choice (SCPC) is the seventh 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 the 2014 SCPC and contains 57 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 (including charge 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 consumer and household financial management, banking, cash management, and other payment practices; consumer assessments of payment characteristics; and a rich set of consumer and household demographic characteristics.

This paper focuses primarily on describing the survey results for 2014. Because there are now seven years of the SCPC data, part of the analysis presented here focuses on the longer trend from 2008 to 2014.<sup>2</sup> For more details about definitions and motivations, please consult earlier papers describing the SCPC surveys, especially Schuh and Stavins (2014).

In 2014, the number of U.S. consumer payments declined by a statistically insignificant amount from 2013, to 66.1 per month. Compared with 2013, the number of check payments declined significantly by 0.7, to 5 per month, and the number of OBBP payments increased significantly by 0.4, to 3.4 per month. The share composition changed significantly as well, with an increase in the share of electronic payments—OBBP and BANP—and a decrease in the share of paper payment instruments—cash, check, and money order. The percentage share of check payments declined to 7.6 percent and the share of OBBP increased to 5.1 percent.

<sup>1</sup> For detailed reports on earlier versions of the SCPC, see Foster et al. (2009, 2011), Foster, Schuh, and Zhang (2013), and Schuh and Stavins (2014, 2015a).

<sup>&</sup>lt;sup>2</sup> Some data from SCPC surveys conducted prior to 2013 may have been revised since the earlier results were published.

Debit cards remained the most popular payment instrument among U.S. consumers in 2014, accounting for 30.8 percent of their monthly payments, followed by cash (25.6 percent) and credit cards (23.3 percent). In 2014, U.S. consumers on average held less cash than in 2013; cash holdings dropped by about 10 percent to \$207. The number of cash withdrawals consumers made per month also declined by about one withdrawal per month to 5.6, a statistically significant change.

The SCPC may provide useful data for the Federal Reserve's strategic focus for financial services during the next decade. The document *Strategies for Improving the U.S. Payment System* (Federal Reserve System 2015a) emphasizes improving speed and security as the top strategic initiative. The SCPC provides data on U.S. consumers' perception of payment instrument security, experience of identity theft, and experience of lost or stolen payment cards and cash. The 2014 SCPC also provides data on consumer understanding and use of virtual currency, which could inform strategic initiatives related to new, faster payment methods. New questions to identify consumers defined by the FDIC as underbanked could be useful for researchers and policymakers studying financial inclusion. In addition, analysis of consumers' payment behavior by cohort may help policymakers envision how any future changes in the payment market might affect the welfare of different demographic groups.<sup>3</sup>

Originally, 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 (ALP) from 2008 through 2013.<sup>4</sup> In 2014, the RAND Corporation continued to implement the SCPC using the ALP, obtaining 1,809 total respondents (1,448 of whom were also in the 2013 SCPC). Also in 2014, the University of Southern California Dornsife Center for Economic and Social Research (CESR) implemented the 2014 SCPC (identical in substance but

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<sup>&</sup>lt;sup>3</sup> Connolly and Stavins (2015) compares the adoption and use of payment instruments by demographic groups and finds that young, black, low-income, and low-education consumers tend to rely more heavily on cash than other consumers. Consumers with the lowest income have a very different pattern of payment behavior than higher-income consumers. They are less likely to hold checks, cards, or electronic payments, and they use cash more intensively than other consumers.

<sup>&</sup>lt;sup>4</sup> Predecessors of the official SCPC were developed beginning in 2003. See Benton et al. (2007) for details.

with a different online interface) using the new Understanding America Study (UAS) panel of U.S. consumers, obtaining 1,238 total respondents. The primary advantage of the UAS is that its panel members are recruited and assembled using frontier methods of sampling as described in Messer and Dillman (2011). A practical advantage of the UAS is that none of the panelists had ever taken the SCPC before, unlike the ALP panelists, many of whom had taken the SCPC multiple times.<sup>5</sup>

A total of 3,047 respondents (1,809 from RAND and 1,238 from USC) completed the 2014 SCPC. For year-to-year comparability, however, the official results reported in the tables accompanying this paper include only the 1,809 respondents from the RAND American Life Panel. The ALP survey responses were weighted to represent all U.S. consumers 18 years old and older; sample weights for the UAS survey responses, the ALP, and the combined ALP and UAS responses will be made available later as well.

As in prior years, the results of the 2014 SCPC reflect modifications in the questionnaire and other aspects of survey methodology, introduced to improve the overall quality and measurement of consumer payment choices. In 2014, questions were added to track consumers' familiarity with, ownership of, and use of virtual currency, to measure the underbanked population, and to gauge whether respondents had been a victim of identity theft. In the interest of time and to avoid duplication with other surveys, some questions related to bank account and mobile access methods, which are not central to the mission of the SCPC, were removed.<sup>6</sup> Otherwise, revisions to the 2014 survey questionnaire were limited to a few, allowing for a more accurate comparison of the survey results over time.

<sup>&</sup>lt;sup>5</sup> Future research will compare and contrast the demographic composition, payments assessments, and behaviors in the ALP and UAS datasets, in a manner analogous to the analysis of 2012 SCPC subsample data reported in Hitczenko (2015), as it is important to discern whether SCPC survey responses differ between the two samples and, if so, why they are different.

<sup>&</sup>lt;sup>6</sup> For more information on mobile banking and mobile payments, see Schuh and Stavins (2015a) and Federal Reserve Board (2015b).

All SCPC data are available free of charge to the public once the official results have been published, along with complete technical documentation.<sup>7</sup> As with previously published results, the SCPC estimates reported here may be revised in the future as a result of additional process improvement and insights from new data. Note that small discrepancies in the estimates may exist throughout the paper, due to rounding.

The remainder of this paper comprises three parts: 1) a written summary of the key SCPC results; 2) a set of tables containing most of the official SCPC results; and 3) a set of tables containing the official definitions of important survey concepts. More details are available in a separate technical appendix by Angrisani, Foster, and Hitczenko (2016).

# A. Official SCPC tables and data

As in prior years, the SCPC aims to measure U.S. consumer ownership (adoption) of payment instruments and the use of these instruments (number of payments) on a monthly basis. For more details about the measurement approach and content of the SCPC, see Schuh and Stavins (2014) and earlier data releases. The official 2014 survey results appear in SCPC Tables 1–41 of this paper (a total of 57 tables). The tables are organized into seven sections:

- 1. *Adoption* Consumer adoption of bank accounts, nonbank payment accounts, and payment instruments and practices. [Tables 1–13]
- 2. Liquid assets Cash and prepaid holding and cash withdrawals. [Tables 14–18]
- 3. *Incidence of use* Share of consumers using their adopted payment instruments to pay bills, purchase goods and services, and make other payments. **[Tables 19–27]**
- 4. Frequency of use Number and share of payments by type of transaction. [Tables 28a–34]
- 5. *Loss, theft, or fraud* Percentage of consumers experiencing loss, theft, or fraud, by payment instrument. [Table 35]
- 6. Assessments Consumer assessments of key characteristics of payment instruments and payment practices. [Tables 36–37q]

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<sup>&</sup>lt;sup>7</sup> See <a href="http://www.bostonfed.org/economic/cprc/data-resources.htm">http://www.bostonfed.org/economic/cprc/data-resources.htm</a>

7. Household Characteristics – Information about consumer demographic characteristics and financial status. [Tables 38–41]

A complete set of tables containing estimates of the standard errors for the SCPC results is available online.<sup>8</sup> 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 2014 survey. The 2014 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. A complete list of variables in the 2014 SCPC datasets can be obtained from the data codebook and questionnaire. All SCPC data users are strongly encouraged to read Schuh and Stavins (2014 and 2015b) and the technical appendix (Angrisani, Foster, and Hitczenko 2016) for more information on the data.

# II. Account Adoption and Holdings

#### A. Transaction accounts

For making payments, consumers hold money in cash (currency), bank accounts, and nonbank accounts like PayPal or general purpose prepaid cards. For the purpose of this discussion, we treat cash held by consumers as a type of account to be adopted, in which value is stored. Consumers also hold credit accounts.

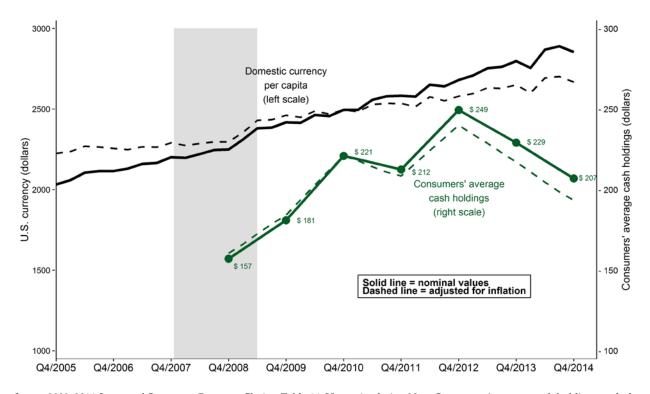
#### 1. Cash

The SCPC defines adopting cash as having used cash at least once in the past 12 months and/or having some cash on one's person or stored elsewhere. In the year ended October 2014, 99.8 percent of consumers report having adopted cash, unchanged from 2013 (Table 6). Survey measurement of cash adoption has been very close to 100 percent for all the years of the SCPC, 2008–2014. Most likely, nearly every consumer has or uses cash each year. The SCPC collects

<sup>&</sup>lt;sup>8</sup> To obtain the standard error tables, see <a href="http://www.bostonfed.org/economic/cprc/SCPC/index.htm">http://www.bostonfed.org/economic/cprc/SCPC/index.htm</a>

<sup>&</sup>lt;sup>9</sup> To obtain the 2013 SCPC data set, codebook, and questionnaire, see <a href="http://www.bostonfed.org/economic/cprc/SCPC/index.htm">http://www.bostonfed.org/economic/cprc/SCPC/index.htm</a>

data separately on cash held by consumers on their person (pocket, purse, or wallet) and on their property (home, car, or office).



Source: 2008–2014 Survey of Consumer Payment Choice, Table 14; Haver Analytics. Note: Consumers' average cash holdings exclude large-value holdings (greater than the 98th percentile). Solid lines are nominal values, and dashed lines are adjusted for inflation using the quarterly values of the GDP deflator, with Q4:2010 as the base quarter. The shaded area indicates recession as defined by the NBER.

Figure 1: U.S. domestic currency in circulation and consumers' average cash holdings

In 2014, U.S. consumers' average total cash holdings (on person plus on property, but excluding large-value holdings) declined about 10 percent, from \$229 in 2013 to \$207, as shown in Figure 1.<sup>10</sup> Average cash holdings also declined about 9 percent in 2013, and to a level 17 percent lower than in 2012. From 2008 to 2014, average cash holdings increased slightly, so the trend is uncertain. In contrast, per capita domestic currency in circulation by all U.S. parties (households, businesses, non-profits, and government), has risen steadily since the mid-1990s

total cash holdings. See Section 6, "Data Preprocessing," in the technical appendix for more information.

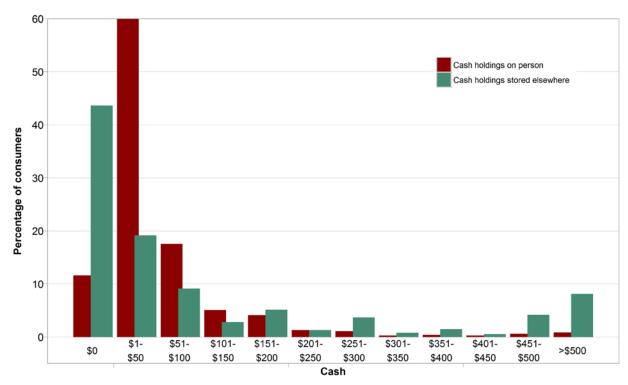
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<sup>&</sup>lt;sup>10</sup> This estimate excludes the top 2 percent of cash holdings (roughly \$2,600 or more), due to small sample sizes and high year-to-year volatility of large-value observations. This exclusion is motivated by the fact that the 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

and has continued to increase by 6.5 percent per year from 2012 through 2014.<sup>11</sup> Some of the increase in recent years may have been due to the recent, low-interest-rate environment (Briglevics and Schuh 2014). A similar phenomenon can be observed in other industrial countries.

In October 2014, 92 percent of U.S. consumers had some cash either on their person or stored elsewhere; 89 percent carried some cash in their pocket, purse, or wallet. Fifty-seven percent of consumers stored some cash at home or elsewhere, perhaps for savings, later spending, or emergency use; 43 percent stored none (Figure 2). Most U.S. consumers held less than \$100 in cash; more than 70 percent had \$50 or less in their pocket, purse, or wallet; 95 percent had \$200 or less. Especially for holdings stored elsewhere, a small percentage of U.S. consumers held very large amounts; 8 percent had more than \$500 stored elsewhere.



Source: 2008-2014 Survey of Consumer Payment Choice, Table 14 and authors' calculations.

Figure 2: Distribution of cash holdings on person and stored elsewhere

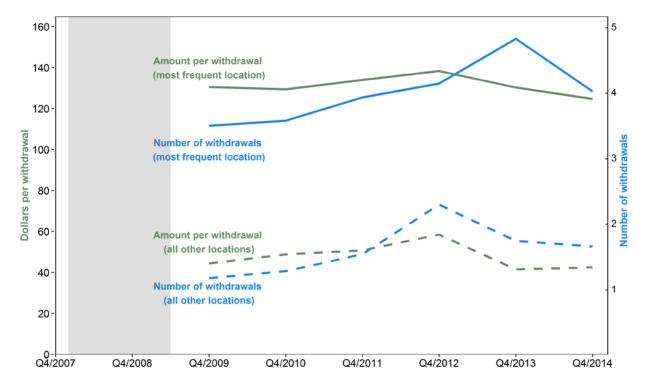
<sup>&</sup>lt;sup>11</sup> The estimate of domestic currency in circulation follows the methodology developed by the Board of Governors of the Federal Reserve System using Flow of Funds data (Federal Reserve Board 2013b). It excludes U.S. currency held in foreign countries.

The number of cash withdrawals by consumers per month declined in 2014 by about one withdrawal per month to 5.6 per month, as shown in Figure 3. This change is statistically significant. The number of withdrawals is the sum of withdrawals at two types of location: 1) the location where the consumer gets cash most often and 2) all other locations combined. In 2014, the number of withdrawals at the most frequent location was 4.0 per month, a significant decline from 4.8 in 2013, 12 and 1.6 at all other locations. This decline in number of withdrawals likely is consistent with the decline in cash holdings (although the relationship is not necessarily exact).

The average value per cash withdrawal did not change significantly from 2013 to 2014. At the most frequent location of withdrawal, the average value was about \$125 per withdrawal. At all other locations, the average value was about \$42 per withdrawal. The average dollar value per withdrawal has remained relatively constant since 2009.<sup>13</sup>

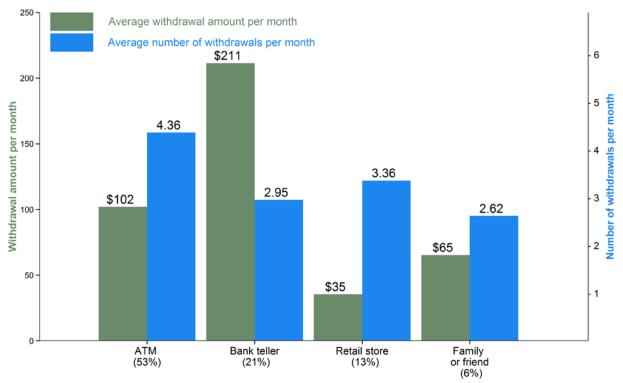
<sup>&</sup>lt;sup>12</sup> The statistical hypothesis of no change in the number of withdrawals from 2013 to 2014 can be rejected at the 95 percent significance level.

<sup>&</sup>lt;sup>13</sup> Estimates for 2008 are unavailable because the survey did not collect data for primary and secondary locations separately.



*Source*: 2009–2014 Survey of Consumer Payment Choice, Table 16. *Note*: The left axis shows the average amount of cash per withdrawal and the right axis shows the average number of cash withdrawals per month per consumer. Estimates for 2008 are unavailable because the survey did not collect data for primary and secondary locations separately. The shaded area indicates recession as defined by the NBER.

Figure 3: Amount and number of cash withdrawals by location per month, 2009–2014



*Source*: 2014 Survey of Consumer Payment Choice, Tables 16 and 17. *Note*: Shares for some locations are too small to be reported. Percentage in parentheses on the x-axis represents the percentage of consumers who selected this location as their primary withdrawal location.

Figure 4: Average cash withdrawal amount and frequency per month by primary source of withdrawal, 2014

In 2014, 53 percent of U.S. consumers used an ATM most often for withdrawals (Figure 4). Twenty-one percent used a bank teller and 13 percent got cash back at retail. Six percent of consumers got cash most often from a family member or friend. The average amount per withdrawal was highest at a bank teller (\$211), followed by ATM (\$102), family or friend (\$65), and retail store (\$35).

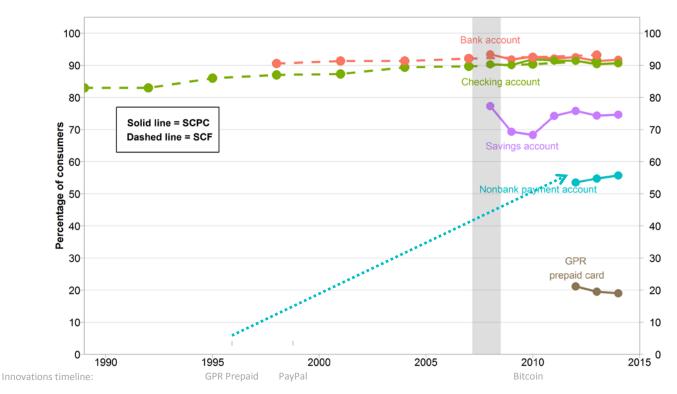
#### 2. Bank accounts

Consumer adoption of traditional financial institution checking and savings accounts has been steady for decades. In 2014, the percentage of U.S. consumers with a deposit account (checking or savings) at a bank was 91.7 percent, unchanged from 2013.<sup>14</sup> Consumer ownership of

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<sup>&</sup>lt;sup>14</sup> FDIC and SCPC estimates of bank account ownership are similar. In 2013 (the most recent year for which comparable data are available), the SCPC estimated that 91.3 percent of consumers had a bank account, and the FDIC found that 92.3 percent of U.S. households had an account at an insured depository institution (FDIC 2014).

checking accounts was 90.7 percent; consumer ownership of savings accounts was 74.7 percent (Figure 5). Ownership of checking accounts has been steady since the SCPC began in 2008. Adoption of saving accounts declined in the years following the Great Recession and has partially recovered since 2010.



Source: 2009–2014 SCPC, Table 1, SCF. Notes: The shaded area indicates recession as defined by the NBER. See footnote 16 for the definition of GPR prepaid card.

Figure 5: U.S. Consumer ownership of bank and other payment accounts, 2008–2014

# 3. Nonbank payment (deposit) accounts

More recently, financial innovations have increased the types of deposit accounts that consumers can use to make payments. Payment services provided by non-depository institutions enable consumers to store money, to send and receive money online, and to make payments for purchases and bills. PayPal, introduced in 1998, is an example of a nonbank account where consumers can store funds and from which they can make payments. Adoption of these nonbank payment accounts has grown fairly quickly since their introduction in the

dot-com era. In 2014, more than half of U.S. consumers (55.8 percent) owned nonbank deposit accounts that can be used to make payments (Figure 5).

The percentage of consumers with such accounts did not change significantly from 2013 to 2014, but has increased in the economic expansion since 2011. <sup>15</sup> The SCPC includes separate questions about specific nonbank account providers—PayPal, Google Wallet, and Amazon payments—as well as about "other online nonbank accounts."

In the 1990s, special-purpose financial companies expanded the concept of the gift card to create the general purpose reloadable (GPR) prepaid card. Initially these cards were seen as a replacement for cash. More recently, some consumers use GPR prepaid cards as an alternative to bank accounts, receiving income and paying bills from these cards (Greene and Shy 2015). GPR prepaid cards (a subset of the broader category of prepaid cards) have a network logo and can be used anywhere, not only for specific types of payments or in specific locations. Examples include NetSpend, Green Dot, Chase Liquid, and Bank of America CashPay. In this report, GPR prepaid card includes the following SCPC categories: Direct Express, EBT, other government benefits, payroll card, and "Other general purpose prepaid card that has a logo from Visa, MasterCard, Discover or American Express." In 2014, 19.0 percent of consumers owned at least one GPR prepaid card, and the percentage owning at least one GPR prepaid card has been fairly steady (showing no statistically significant change) since 2012, the first year for which comparable data are available. Industry data showing increasing numbers of such cards

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<sup>&</sup>lt;sup>15</sup> The statistical hypothesis of no change in the share of consumers with nonbank payment accounts from 2013 to 2014 cannot be rejected. 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, credit card payments made by consumers may include some credit card payments made via PayPal.

<sup>&</sup>lt;sup>16</sup> GPR prepaid cards are issued by both banks and nonbanks; many offer deposit insurance. In this report, GPR prepaid card includes the following SCPC categories: Direct Express, EBT, other government benefits, payroll card, and "Other general purpose prepaid card that has a logo from Visa, MasterCard, Discover or American Express."

<sup>&</sup>lt;sup>17</sup> Neither the change from 2013 to 2014 nor the change from 2012 to 2014 is statistically significant. Data for 2011 and prior years are not comparable due to questionnaire changes. Consumer confusion about the different categories of prepaid cards makes asking about these cards difficult. The SCPC measure of GPR prepaid cards consists of the percentage of consumers who reported adopting any of the following: Direct express; EBT, WIC, SNAP, or TANF card; other government benefits prepaid card; payroll card; or "other general purpose prepaid card that has a logo from Visa, MasterCard, Discover, or American Express."

outstanding could imply that consumers who do own these cards own more than one card (and, perhaps, increasing numbers of cards) per consumer.

Beginning in 2009, consumers could also hold virtual currency such as bitcoin. Virtual currency is not government backed and exists only in digital form. In 2014, the first year in which the SCPC measured adoption of virtual currency, 0.4 percent of U.S. consumers had adopted virtual currency (value not displayed in Figure 5). (For detail, see Section VII.B.)

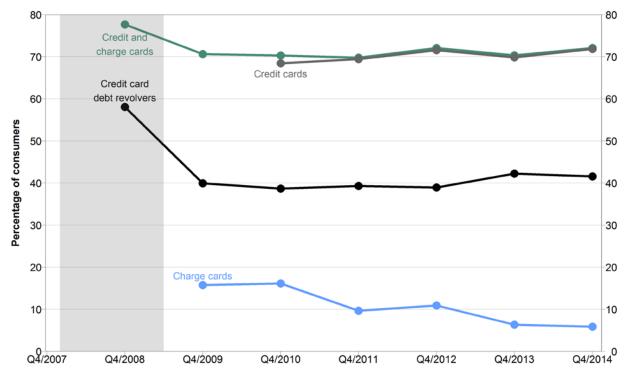
#### 4. Credit accounts

In 2014, 72.1 percent of U.S. consumers had credit accounts used to make payments, consisting of either charge cards or credit cards. Charge cards are expected to be paid in full each month. Some American Express cards and store-specific cards, for example, are charge cards; 5.9 percent of consumers had charge cards in 2014. This is a decline from 15.8 percent in 2009 and might reflect an increasing tendency of store-branded cards to carry a card network logo that permits them to be used as a credit card that does not have to be paid in full each month.

Credit cards differ from charge cards in that consumers are expected to pay some minimum amount each month and then may choose whether or not to maintain a balance ("revolve" credit card debt) on which they pay interest (Figure 6); 71.8 percent of companies had credit cards, which do not need to be paid in full at the end of every month.

At some point during the 12 months ending in October 2014, 41.6 percent of consumers carried an unpaid balance on a credit card.<sup>18</sup> This is an insignificant change from 2013, when 42.2 percent of individuals carried credit card debt. The percentage of consumers revolving credit card debt dropped sharply after the financial crisis, as shown in Figure 6.

<sup>&</sup>lt;sup>18</sup> The SCPC question is "During the past 12 months, did you carry an unpaid balance on any credit card from one month to the next (that is, you did not pay the balance in full at the monthly due date)?"



Source: 2014 Survey of Consumer Payment Choice, Tables 6 and 41. The shaded area indicates recession as defined by the NBER.

Figure 6: Percentage of U.S. consumers adopting credit accounts

In prior years, the SCPC measured the percentage of consumers who had made a text/SMS mobile payment in the preceding 12 months. These payments are an extension of credit from a mobile phone company and, like charge card balances, must be paid in full each month. This question was eliminated in 2014 due to time constraints and because such a small percentage of consumers had made these payments. In 2013, 12 percent of consumers made a text/SMS mobile payment.

The SCPC also gathers information about other debt to begin to understand payment choices in the context of estimates of net worth. Consumers are asked to report the total of non-housing-related debt (car loans, student loans, credit card debt). Homeowners are asked to report the mortgage balance on their primary residence, home equity, and other housing-related debt. The SCPC does not collect separate information about home equity lines of credit.

# **III.** Adoption of Payment Instruments

This section discusses the adoption—or ownership—of 10 payment instruments by consumers in 2014. It reports 2014 estimates in three ways: 1) adoption rates of individual payment instruments, 2) average number of payment instruments adopted by consumers, and 3) portfolios of payment instruments adopted by individual consumers. Four of the payment instruments are paper media: U.S. currency (notes and bills only, no coins), traveler's checks, money orders, and paper checks (personal, certified, and cashier's). Three are payment cards (debit, credit [including charge cards], and prepaid). Three are electronic: online banking bill payment (OBBP), bank account number payments (BANP), and virtual (private) currency (for example, bitcoin). The SCPC also reports use of direct deduction from income, for example, automatic payments for health insurance or transfers to a flexible spending account. While not, strictly speaking, a payment instrument owned by a consumer, this is a method consumers may use to make payments.

## A. Adoption rates of individual instruments

In 2014, almost three-quarters of U.S. consumers owned the top four payment instruments: 99.8 percent of U.S. consumers had cash, 82.7 percent owned paper checks, 78.6 percent owned a debit card, and 72.1 percent owned a credit or charge card. In addition, more than half of consumers had adopted BANP, OBBP, and prepaid cards (Table 7).

From 2013 to 2014, two payment instruments show statistically significant changes in adoption: adoption of money orders decreased and adoption of OBBP increased, consistent with the longer-term trends in the adoption of these payment instruments (Figure 7) and with the trend away from noncash paper (paper checks, money orders, and traveler's checks) adoption generally and toward electronic payment adoption. OBBP adoption increased by 2.9 percentage points, to 57.1 percent<sup>19</sup> and money order adoption decreased by 3 percentage points to 17.6

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<sup>&</sup>lt;sup>19</sup> The statistical hypothesis of no change in the adoption rate of OBBP from 2013 to 2014 can be rejected at the 90 percent significance level.

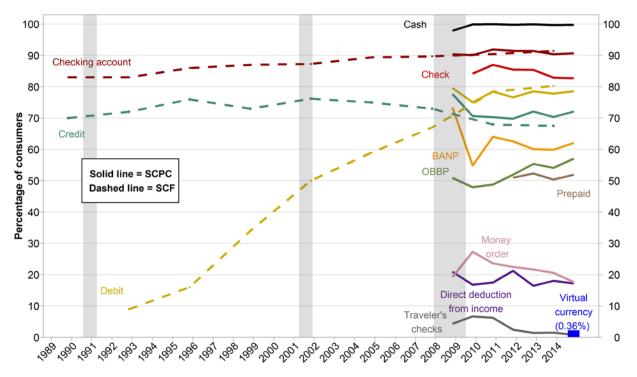
percent<sup>20</sup> (Figure 7). Although the adoption of payment cards rose slightly, those changes were not statistically significant.

From 2008–2014, Figure 7 shows the shift away from adoption of noncash paper instruments and toward electronic ways to pay from a deposit account, in particular, adoption of OBBP. In the longer term, the Survey of Consumer Finances (SCF) shows the increase in adoption of debit cards—another indication of the shift away from noncash paper instruments—over 20 years. Figure 7 combines SCPC data on consumer adoption of payment instruments with similar data on households from the SCF, where available and comparable, to provide a perspective on longer-term trends.<sup>21</sup>

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<sup>&</sup>lt;sup>20</sup> The statistical hypothesis of no change in the adoption rate of money orders from 2013 to 2014 can be rejected at the 95 percent significance level.

<sup>&</sup>lt;sup>21</sup> While the SCF tracks the adoption of payments by consumers over a much longer time span, that survey only collects data on a subset of payment instruments or accounts (checking account, credit card, debit card, and automatic ACH payments) and is conducted every three years. The most recent SCF was conducted in 2013. See <a href="http://www.federalreserve.gov/econresdata/scf/scfindex.htm">http://www.federalreserve.gov/econresdata/scf/scfindex.htm</a> for more details.



Source: 2008–2014 SCPC, Table 9; 1983–2013 SCF. Note: The shaded areas indicate recessions as defined by the NBER. Virtual currency (0.4 percent) was first measured in 2014; adoption rate for traveler's checks in 2014 was 0.8 percent.

Figure 7: U.S. Consumer adoption of payment instrument types, 1989–2014

# B. Average number of payment instruments adopted

Payment choices available to U.S. consumers have increased continually since the middle of the 20th century. Nevertheless, the number of payment instruments adopted by consumers has grown slowly in recent years and also over the longer term. Of nine payment instruments (cash, paper check, money order, traveler's check, credit card [including charge cards], debit card, prepaid card, OBBP, and BANP), U.S. consumers held 5.3 payment instruments on average in 2014.<sup>22</sup> Of the four accounts or instruments studied by the SCF (checking account, credit card, debit card, and automatic ACH payments<sup>23</sup>), U.S. consumers held about three (Figure 8).

<sup>&</sup>lt;sup>22</sup> Virtual currency and direct deduction from income are excluded from this analysis.

<sup>&</sup>lt;sup>23</sup> For comparison with the SCF, the percentage of consumers adopting automatic ACH bill payments is defined as the percentage of consumers who adopt OBBP and/or BANP and use one or both for automatic bill payment. This is an improved comparison; in prior papers reporting SCPC results, the comparison was with the percentage of consumers adopting BANP. The new estimate is more similar to the SCF definition: "Some people have their utility or insurance bills, mortgage or rent payments, or other payments automatically deducted from their accounts

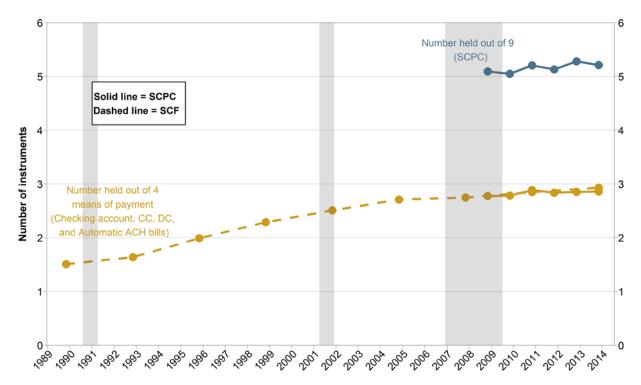
From 2013 to 2014, U.S. consumers did not change the number of payment instruments they tended to own. This holds true when looking at portfolios that could potentially consist of up to all nine payment instruments included in the SCPC,<sup>24</sup> as well as when looking at portfolios that could potentially consist of up to all four accounts or payment instruments included in the SCF.

From 2008 to 2014, there has been a slight upward trend in the number of different payment instruments held in the SCPC context of nine payment instruments.<sup>25</sup> The average number of instruments held in the SCF context of four payment instruments has been flat (Figure 8).

without having to write a check or direct the payment using the internet or the phone. Do you (and your family living here) have any payments that you make in this way?"

<sup>&</sup>lt;sup>24</sup> For comparability over time, 2014 adoption of virtual currency is not included in this analysis.

<sup>&</sup>lt;sup>25</sup> Not statistically significant.



Source: 2008–2014 SCPC, Table 12; 1989–2013 SCF. Notes: The nine SCPC payment instruments include blank paper checks and exclude direct deductions from income and virtual currency (for comparability over time). Automatic ACH bill payments as defined in the SCF are SCPC automatic bills paid via either BANP or OBBP. The four SCF or SCPC payment instruments or accounts include checking account. SCPC adoption out of four payment instruments declines slightly when the calculation is performed using adoption of paper checks instead of adoption of checking account. The shaded areas indicate recessions as defined by the NBER.

Figure 8: Average number of payment instrument types adopted by U.S. consumers

# C. Portfolios of payment instruments adopted by individual U.S. consumers

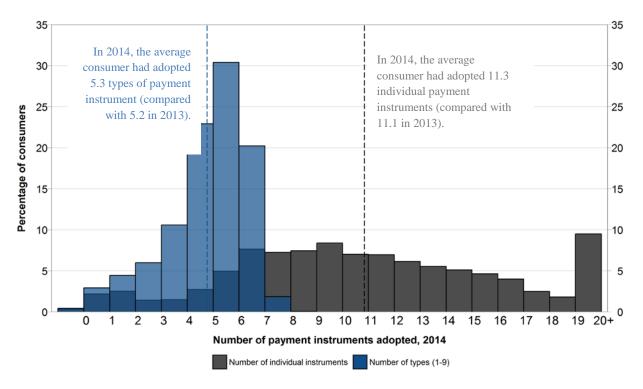
In 2014, the most common number of unique types of payment instruments held by U.S. consumers was six, held by about 30 percent of consumers. About three-quarters of consumers held between five and seven unique types of payment instruments. While most consumers own five to seven instruments, the mix of instruments that consumers hold is quite varied. For the 2014 SCPC, 1,809 respondents reported 117 unique portfolios of types of payment instruments. The most common portfolio of seven instruments (two paper, three cards, two electronic; see Table I) was held by only 15 percent of all consumers. The top five portfolios account for less than 44 percent of consumers.

Number of payment instruments	Cash	Check	Traveler's check	Money order	Credit card	Debit card	Prepaid card	OBBP	BANP	Percentage of consumers
7	х	Х			х	Х	Х	Х	Х	14.9
6	х	х			х	х		х	х	12.1
6	х	х			х	х	х		х	6.0
5	х	Х			х	х		X		5.3
5	х	х			х	х			х	4.8

Source: 2014 Survey of Consumer Payment Choice, Table 13, authors' calculation.

Table I: Five most common portfolios of payment instrument types adopted by U.S. consumers, 2014

Because U.S. consumers may have multiple checking accounts (with the associated checks and debit cards) and multiple credit or prepaid cards, they may carry many more individual payment instruments than unique types of payment instruments. For example, a consumer who holds six credit cards would have one type of payment instrument—credit card—and six individual payment instruments. The number of individual payment instruments adopted is much more dispersed than the number of types, of course, with about 5 percent of consumers owning two or fewer individual payment instruments and 9 percent owning 20 or more individual payment instruments. In 2014, the average consumer had adopted 11.3 individual payment instruments (Figure 9). As noted above, payment instrument adoption changes slowly. Compared with 2013, the numbers of unique instruments adopted were essentially the same (11.1 individual instruments on average).



Source: 2014 Survey of Consumer Payment Choice, Table 13, authors' calculations. Note: Vertical lines indicate the average number of types and individual instruments adopted. Nine payment instruments include blank paper checks and exclude direct deductions from income and virtual currency.

Figure 9: Number of payment instrument types adopted by individual U.S. consumers, 2014

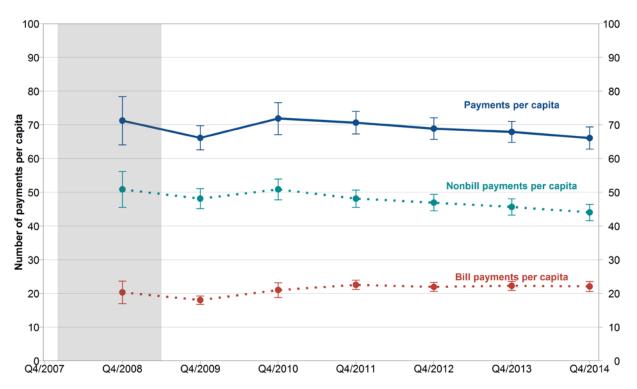
# IV. U.S. Consumers' Use of Payment Instruments

This section reports U.S. consumers' use of payments according to five perspectives: 1) total number of payments by consumers in the year ended October 2014; 2) payments by source of funding (cash, other forms of money, and credit); 3) percentage share of consumers using each payment instrument at least once during the prior years; 4) payments by payment instrument; 5) payments by transaction type.

# A. Total number of payments

On average, U.S. consumers made 66.1 payments per month in 2014, a statistically insignificant decline from 67.9 in 2013, as shown in Figure 10. Since 2008, the number of U.S. consumer payments has been relatively constant, fluctuating in a range between a low of 66.2 (2009) to a high of 71.9 (2010) per month through 2014. The overall trend in the number of payments during this time, which includes part of the last recession, has been slightly negative (about

-1.07 percent per year), but not statistically significant. Accurate estimation of long-run trends or business cycle properties is very difficult with only seven observations, so it is premature to draw firm conclusions about cyclicality at this time.



*Source*: 2008–2014 Survey of Consumer Payment Choice, Table 30. *Note*: The vertical lines around each point estimate represent two standard deviations. The shaded areas indicate recessions as defined by the NBER.

Figure 10: Number of U.S. consumer payments per capita per month: all payments, nonbill payments

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 units used to measure consumer payments (numbers) in the SCPC differs from the economic measure of real (inflation-adjusted) consumption in the National Income and Product Accounts (NIPA), perhaps the most common measure of consumer spending.<sup>26</sup>

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a consumer buys or the inflation-adjusted dollar value of those purchases); and 3) the population of consumers

<sup>&</sup>lt;sup>26</sup> The two measures differ in at least three conceptually substantive ways: 1) the types of spending included (the number of payments includes 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 spending (the number of consumer payments measures how many times a consumer pays for something, not the number of things

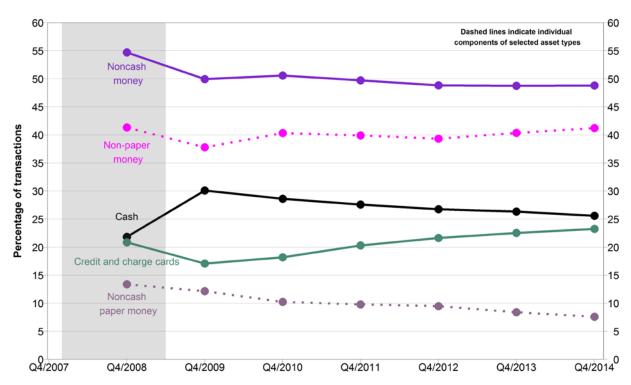
The remainder of this section describes U.S. consumer payments in 2014 and their changes from 2013, by decomposing these consumer payments in three ways: 1) by funding source (money and credit); 2) by payment instrument; and 3) by transaction type (bills, nonbills, online, in person, etc.).

# B. Payments by source of funding

The SCPC identifies the number of payments made by U.S. consumers from each funding source, broadly categorized as money (cash, demand deposits, and other payment accounts with underlying demand deposits [prepaid cards, money orders]) and credit (credit and charge cards and SMS/text message payments) (Table 28b).<sup>27</sup> In 2014, payments funded by money accounted for three-quarters of all payments; payments funded by credit accounted for one-quarter (Figure 11, Table 28b). Of payments funded by money, about one-third were made with cash and about two-thirds by payment instruments linked to demand deposits (checks, debit cards, BANP, OBBP, payment accounts linked to underlying demand deposits). Compared with 2013, there were no significant shifts in shares of payments with money versus credit.

covered (the SCPC includes only consumers in the noninstitutional population age 18 and above, rather than all consumers, 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).

<sup>&</sup>lt;sup>27</sup> Credit also would include text message payments, which are not tracked in the 2014 SCPC.



Source: 2008–2014 Survey of Consumer Payment Choice, Table 28b. Note: The shaded area indicates recession as defined by the NBER.

Figure 11: Shares of U.S. consumer payments by funding source, 2008–2014

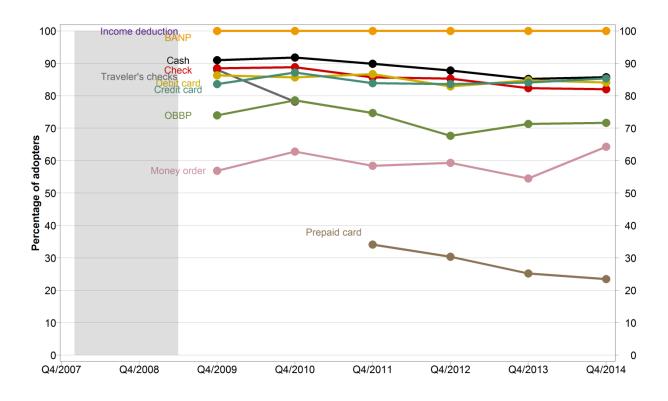
Understanding of funding sources can shed light on some trends in U.S. consumers' use of non-paper (electronic + card) payments. When payments with credit (meaning, credit and charge cards) are excluded from non-paper payments (Figure 11), these payments as a share of total payments appear to have been fairly constant since 2009. That is, what could appear to be an increasing trend in non-paper payments might actually be a cyclical change related to funding source: consumers' returning to credit during the economic recovery. When disaggregated by funding source, the increase in non-paper payments since 2009 is due to the increase in credit, rather than to an increase in the use of card and electronic payments per se.<sup>28</sup> Also, the decline in the use of noncash paper money (from 13.9 percent in 2008 to 8.1 percent in 2014) is

<sup>&</sup>lt;sup>28</sup> As noted below, the decline in paper payments is related to the decline in the use of checks.

responsible for the decline in the use of paper instruments. Over that same time period, cash use increased from 21.8 percent of transactions to 25.6 percent (Figure 11).

# C. Percentage of U.S. consumers using each payment instrument

Most people who have adopted a payment instrument use it, and the percentage of U.S. consumers using each payment instrument has remained fairly steady year-to-year since 2008. The percentage of adopters using cash, credit cards, debit cards, and checks has been fairly similar, hovering between 80 and 90 percent (Figure 12). The share of consumers who use OBBP is notably lower than the share of consumers who have adopted OBBP; just around 70 percent of OBBP adopters use it. Fewer than 25 percent of adopters used a prepaid card in the 12 months ending in October 2014. This low percentage could be a signal that some U.S. consumers use prepaid cards quite intensively and others not at all.

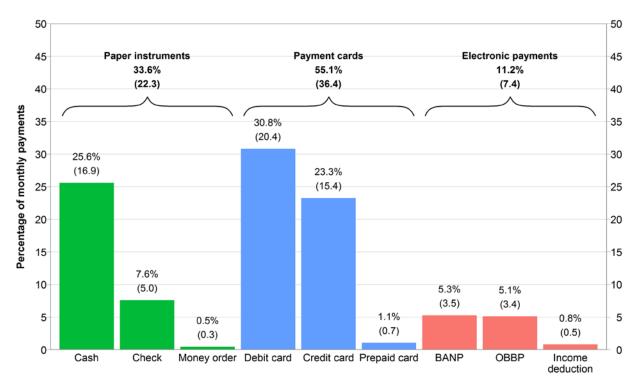


Source: 2008–2014 Survey of Consumer Payment Choice, Table 23b. Note: The shaded area indicates recession as defined by the NBER.

Figure 12: Percentage of adopters using payment instrument in previous year, 2008–2014

# D. Payments by payment instrument

In 2014, U.S. consumers made an average of 36.4 payments per month using payment cards (55.1 percent of total payments), 22.3 payments per month using paper instruments (33.6 percent), and 7.4 payments per month via electronic and other methods (11.2 percent). In addition, U.S. consumers made an average of 0.5 payments per month automatically via direct deduction from income.



Source: 2008–2014 Survey of Consumer Payment Choice, Table 29.

Figure 13: Number and share of U.S. consumer payments in a typical month, by type of payment instrument, 2014

Compared with 2013, the pattern of use in 2014 indicates a shift from paper to electronic payments. The share of paper payments (cash, checks, and money order) declined by 1.6 percentage points (driven by a decline in checks, as noted above), and the share of electronic payments (OBBP, BANP, and deduction from income) increased by 1.2 percentage points.<sup>29</sup> In

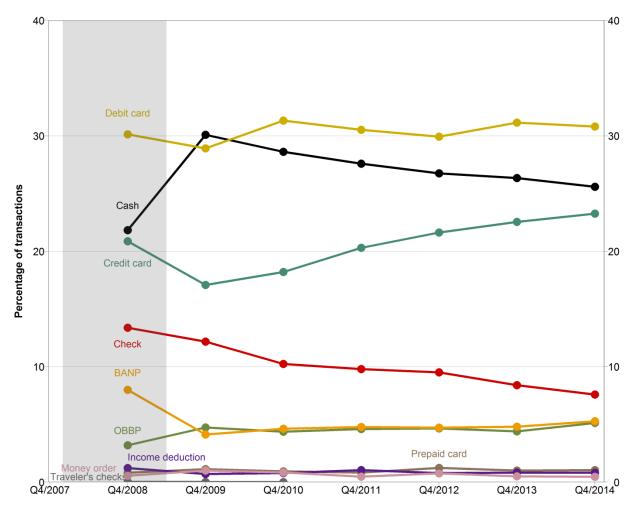
<sup>-</sup>

<sup>&</sup>lt;sup>29</sup> The statistical hypothesis of no change in the combination of shares between paper and electronic instruments from 2013 to 2014 can be rejected at the 95 percent significance level.

2014, debit cards remained the most commonly used payment instrument, with 30.8 percent or 20.4 payments per month, followed by cash, which was used for 25.6 percent or 16.9 payments per month, and credit cards, which were used for 23.3 percent or 15.4 payments per month (Figure 13).

U.S. Consumer use of two individual payment instruments changed significantly from 2013 to 2014.<sup>30</sup> The number of check payments in 2014 declined significantly, continuing the consistent year-over-year decline from 2008, to 5.0 per month from 5.7 per month in 2013, and the number of OBBP payments increased significantly to 3.4, compared with a 3.0 year-over-year increase in 2013 (Figure 14). None of the other changes in the number of monthly payments by payment instrument were statistically significant.

<sup>&</sup>lt;sup>30</sup> The statistical hypothesis of no change in the number of both check and OBBP payments from 2013 to 2014 can be rejected at the 95 percent significance level.



Source: 2008–2014 Survey of Consumer Payment Choice, Table 28b. Note: The shaded area indicates recession as defined by the NBER.

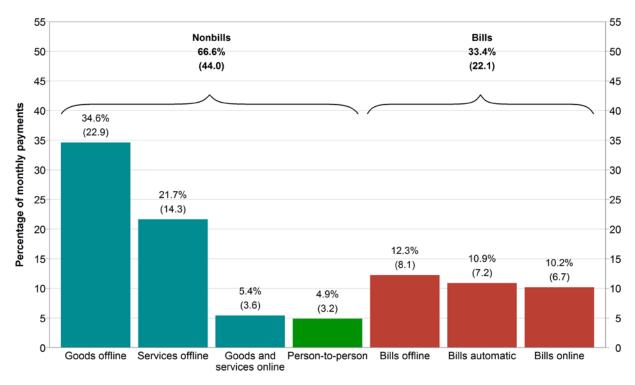
Figure 14: Shares of U.S. consumer payments by type of instrument, 2008–2014

From 2008 through 2014, Figure 14 depicts the decline in paper check use as a share of consumer transactions. Traveler's checks, money orders, and prepaid cards represent a minuscule share of consumer payments throughout this period. Debit card use remained fairly constant over the eight years of the SCPC at around 30 percent. Cash and credit card shares changed in the aftermath of the Great Recession, as consumers moved away from borrowing, and they have renormalized in more recent years to about one-quarter of transactions for each.

# E. Payments by transaction type

The SCPC tracks the number of payments made by U.S. consumers according to seven transaction types, broadly categorized as three types of bills (two types paid electronically

[automatic and online payments] and paid by mail, phone, or in person) and four types of nonbills (paid online or in person: for retail goods, services, and person-to-person payments). In 2014, 66.6 percent of payments were nonbills. There were 44 nonbill payments and 22.1 bill payments per person per month on average (Figure 15 and Table 30). The two-thirds/one-third mix of nonbills and bills has remained constant since the SCPC began in 2008, with no statistically significant change between 2013 and 2014 or between 2008 and 2014.

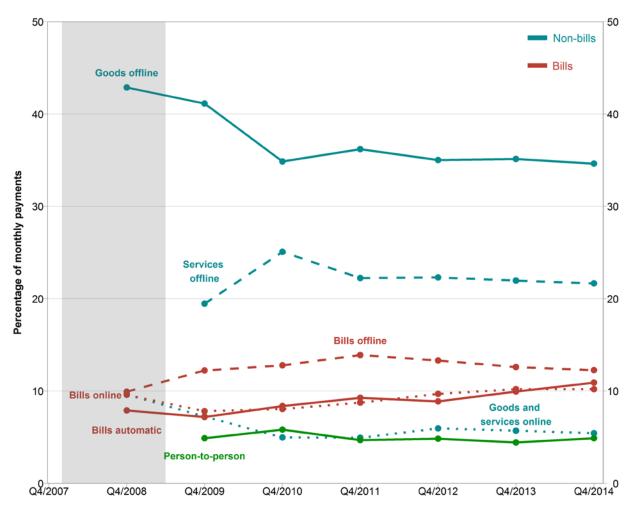


Source: 2014 Survey of Consumer Payment Choice, Table 30.

Figure 15: Number and share of consumer payments in a typical month, by transaction type, 2014

In 2014, offline (meaning: by mail, in person, or phone) payments for retail goods purchases continued to represent the largest share of all transactions, with 22.9 payments per month (34.6 percent), followed by offline payments for services, with 14.3 payments per month (21.7 percent), as shown in Figure 15. There were 8.1 bill payments by mail, in person, or by phone (12.3 percent); 7.2 automatic bill payments (10.9 percent); 6.7 online bill payments (10.2 percent); 3.6 online payments for goods and services (5.4 percent); and 3.2 person-to-person payments (4.9 percent). The numbers of payments in all seven detailed transaction types and the

composition of transactions by type (percentage shares) did not change significantly from 2013 to 2014.<sup>31</sup> With the exception of automatic bill pay, no transaction type increased its share by even one percentage point (Figure 16). Most of the nonbill transaction shares (online goods and services; offline retail; offline services) dropped by a fraction of a percentage point.



Source: 2008–2014 Survey of Consumer Payment Choice, Table 30. Note: Offline encompasses by mail, in person, or by phone. The shaded area indicates recession as defined by the NBER.

Figure 16: Shares of U.S. consumer payments by transaction type, 2008–2014

The composition of nonbill transactions has remained fairly constant since the SCPC began in 2008, with offline retail purchases representing a little more than half of total nonbill payments

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<sup>&</sup>lt;sup>31</sup> The statistical hypothesis of no change in the composition of shares by transaction type from 2013 to 2014 cannot be rejected at the 95 percent significance level.

and online purchases of retail goods and service ranging between 7 and 8 percent. Offline purchases of services are about one-third of total nonbill payments.

Comparing 2008 with 2014, the mix of methods of bill payment remained consistent. Bills paid electronically (automatically or online) were 58.7 percent of bill payments in 2008; they were 62.9 percent of bill payments in 2014.<sup>32</sup> Immediately post-recession, in-person bill payments were more popular than either of the two electronic bill types, but that difference had disappeared by 2014.

# V. Money, Credit, and Payments

U.S. consumers fund payments with the money and credit available to them. Therefore, taking stock of the dollar value of different types of money and credit held by consumers is a prerequisite to understanding consumer payment choices. In most cases, consumers' money and credit are stored in accounts managed by depository institutions (banks) and other financial institutions, so it is important to track consumer ownership of these accounts as well.

Typically, the most liquid components of money, collectively M1, are sometimes referred to as "transactions balances" because they are used to pay for goods and services, bills, and other transactions. M1 is the sum of the following:<sup>33</sup>

- Currency (notes, bills, and coins)
- Traveler's checks
- Checking accounts
  - Demand deposits
  - Other checkable deposits

Some types of checking accounts yield a modest rate of interest on existing balances.

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<sup>&</sup>lt;sup>32</sup> Table 30, authors' calculations.

<sup>&</sup>lt;sup>33</sup> The Federal Reserve tracks these balances for the entire economy and reports them in a weekly statistical release called "Money Stock Measures, H6" found here: <a href="https://www.federalreserve.gov/releases/h6/">https://www.federalreserve.gov/releases/h6/</a>.

Consumers also hold some of their liquid assets in "nontransaction balances," also referred to as "savings accounts." Together with M1, savings accounts represent a broader measure of money, M2. So-called nontransaction balances include the following:

- Savings deposits, including money market deposit accounts (MMDA)
- Small-denomination (less than \$100,000) time deposits
- Retail money funds, such as money market mutual funds (MMMF).

Savings accounts generally pay interest on balances, usually at a higher rate than any that might be available on checking accounts. Some depository institutions offer a specific form of payment account, such as a Christmas Club, in which the institution holds regular deposits from the consumers until they are used to buy goods and services for a specific purpose. The SCPC does not collect information about these special-purpose saving accounts.

Recent innovations in financial services have made savings accounts relevant for understanding consumer payments. Consumers can transfer balances between savings accounts and M1 much faster and more easily than in the past and can also make some payments directly from savings accounts, so the amount of money available for payments is much larger than M1. Some retail money funds allow a limited number of payments directly from the account by check or debit card. Consumers may use BANP to pay directly from a savings account. Linked checking and savings accounts can be set up to automatically transfer funds from savings to checking as needed to prevent overdrafting.

Consumers also fund some of their payments with certain types of credit accounts that contain balances, known as credit limits, from which consumers can make payments directly. The most common type is a credit card account, which provides a line of credit that, once used, must be paid back (that is, funded from monetary assets) at later date. Credit card account holders can spend up to the pre-approved credit limit at any time without any additional need to apply for credit at the time of payment. Most credit card accounts are based on revolving debt, in which account holders may choose at their discretion to roll over (or "revolve") some portion of the balance to the next pay period (usually a month) and be charged interest on the unpaid balance.

A charge card is a special kind of credit card for which balances due on the account must be paid in full at the end of the credit period, often a month. More recently, a new type of credit account has emerged, in which mobile phone users can send a text message or SMS to authorize their cellular company to make a payment on their behalf and pay it back with their next bill. These text/SMS payments are similar to a charge card but still relatively rare.<sup>34</sup>

Another form of consumer payment is based on a nonbank form of saving before paying. A layaway account is one in which consumers select specific goods or services sold by a merchant that are to be received only at a later period after making sufficient payments. Often layaway accounts entail an up-front deposit and regular payments until paid in full, typically to the merchant. The SCPC does not collect data on layaway payments.

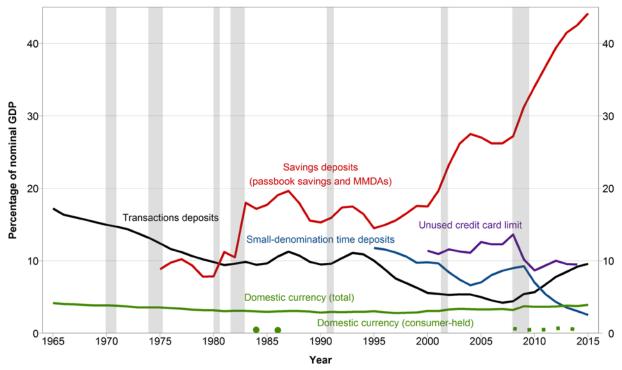
The amounts of money and credit held to fund payments are large and the relative proportions change considerably over time. Figure 17 plots the values of money and credit, as a proportion of national income (GDP), held in currency, checking accounts, savings accounts, small-denomination time deposits, and revolving credit accounts from 1965 to 2014.<sup>35</sup> At about 4 to 5 percent, currency is the smallest portion of so-called transactions balances but also the most stable. Interestingly, cash is not "dead" in the sense that cash holdings have diminished; in fact, cash holdings have *increased* since the mid-1990s. The share of balances held in checking accounts was about the same as the share of currency prior to the recent financial crisis but has increased to about 10 percent since then (and was higher in earlier decades).<sup>36</sup> Unused credit for payments, which is the difference between credit and charge card limits and the debt outstanding, is as large a source of liquidity for consumer payments as checking accounts.

<sup>&</sup>lt;sup>34</sup> An early example of this type of payment is the request for donations in the aftermath of the earthquake in Haiti in 2010, advertised during the NFL playoffs. There is no explicit "limit" to the credit extended for these payoffs and the provision of credit is made by a nonfinancial company that is not subject to the usual regulation for financial institutions and transactions.

<sup>&</sup>lt;sup>35</sup> Estimates of the amounts held by U.S. consumers only are not readily available and comparable for all types of money and credit. The SCPC estimates for domestic currency are an exception. The estimates for unused revolving credit are primarily for households, but may include small businesses.

<sup>&</sup>lt;sup>36</sup> Bagnall et al. (2014).

However, savings deposit balances have increased steadily and by 2014, at more than 40 percent, had become by far the largest source of funds readily usable for payments.



Source: Authors' calculations from FRBNY Consumer Credit Panel / Equifax, 2008–2014 SCPC (Table 14), Survey of Currency and Transaction Account Usage (SCTAU), Fed Board H.6 Releases, and Avery et al. (1987) for 1984 and 1986 estimates of Domestic Consumer-held Currency over GDP. Notes: The shaded areas indicate recessions as defined by the National Bureau of Economic Research (NBER). Consumer-held currency excludes large-value holdings (greater than the 98th percentile). Domestic currency over GDP has remained generally between 3 and 4 percent over the last half century: 4.2 percent in 1965, 3.2 in 1980, 2.9 in 1990, 3.2 in 2008, and 3.8 in 2014. Small-denomination time deposits include time deposits at banks and thrifts with balances below \$100,000.

Figure 17: Money and credit as a percentage of gross domestic product

U.S. consumers access the money and credit depicted in Figure 17 by authorizing the transfer of funds to a recipient, using a linked payment instrument, as depicted in Table II.<sup>37</sup> The SCPC covers 12 types of payment instruments:

• Three instruments that are money (U.S. paper currency [no coins], virtual currency [for example, bitcoin], traveler's checks),

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<sup>&</sup>lt;sup>37</sup> Tobin (1980) defines payment instruments as "derivative media," that is, distinct from the asset (or liability, for example, an increase in credit card debt) used to fund the payment.

- Seven instruments linked to money in deposit accounts held directly by the consumer or held by others (paper checks, debit cards, OBBP, BANP, direct deductions from income,<sup>38</sup> money orders, prepaid cards)
- Two instruments linked to credit (credit and charge cards).

Money and credit	Payment instruments	
Money		
Currency	U.S. currency Foreign currency Virtual currency (e.g., bitcoin)	
Traveler's check	Traveler's check	
Transactions deposits		
Checking accounts in consumer's name (demand and other checkable deposits)	Checks (personal, certified, or cashier's) Money order (bank-issued) Debit card Prepaid card (bank-issued) OBBP BANP	
Checking accounts held in name of payments service provider or servicing financial institution (may have pass-through deposit insurance)	Prepaid cards (issued by nonbank) Money order (issued by nonbank)	
"Nontransaction" deposits (aka M2) in consumer's name (with check-writing and/or electronic payment features)	Checks OBBP BANP	
Small-denomination time deposits	NA	
Credit		
Revolving credit	Credit card	
Nonrevolving credit	Charge card Text/SMS	

Source: Authors' analysis. Note: Foreign currency, cashier's checks, and Text/SMS payments are not tracked by the SCPC. Direct deductions from income are omitted from this table. For information on text/ SMS payments in prior years, see Schuh and Stavins (2015).

Table II: Relationship of payment instruments to money and credit

The SCPC measures consumer adoption of money, credit, and payment instruments in two ways. First, it asks whether consumers have or own the accounts and/or instruments; that is, whether consumers have adopted them. This measure is a necessary prerequisite to measuring

<sup>&</sup>lt;sup>38</sup> While not strictly speaking a payment instrument owned by a consumer, this is a method consumers may use to make payments.

consumer use of accounts and instruments, either the share of consumers using them or the frequency with which consumers use them. Second, it also collects data on the dollar value of the balances owned. In 2014, the SCPC collected dollar values for two types of money (U.S. currency and virtual currency) and for the outstanding debt on credit and charge cards (but not credit limits). Consequently, the SCPC offers only a partial picture of consumers' balance sheets and net worth at this time and would need to add the other types of money and credit discussed above to obtain a comprehensive picture.<sup>39</sup>

### VI. Noncash Payments in Perspective

SCPC measurement of noncash payments can be compared to comprehensive, reliable data from the Federal Reserve Payments Study (FRPS) and NACHA, the electronic payments association, for validation and benchmarking.

#### A. Comparison with Federal Reserve Payments Study

Consumer use of noncash payments has been broadly similar to use by businesses, governments, and nonprofits, as reported by the FRPS. Every three years, the FRPS estimates aggregate noncash payments by households, businesses, and governments in the United States. By and large, estimates of consumer noncash payment shares are broadly similar to those for the entire economy. Overall, the FRPS and the SCPC show similar time-series trends for each payment instrument (Figure 18). The combined share of payments made from checking accounts (that is, the sum of check plus debit plus ACH payments) has remained fairly stable from 2000, both for the economy as a whole (FRPS) and for consumers (SCPC).

For consumer noncash payments from 2008 to 2014, the SCPC documents a shift away from checks and toward debit cards, credit cards, and ACH payments. With cash included, the share of consumer check payments fell from 13.4 percent in 2008 to 7.6 percent in 2014 (Figure 14).

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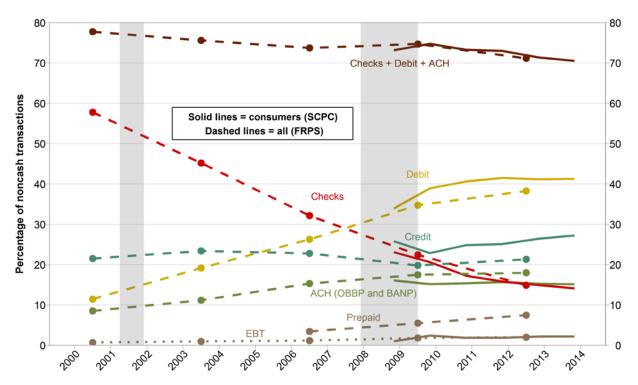
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<sup>&</sup>lt;sup>39</sup> In 2011 and 2012, the SCPC collected dollar balances of prepaid cards. In 2009 and 2010, the SCPC collected the dollar value of prepaid card reloadings in a typical month. In 2015, the SCPC began asking respondents to report the dollar value of the consumer's primary checking account (defined as the account used most often to make payments, not necessarily the account with the highest dollar balance).

The long-term shift from checks toward debit and ACH is shown for the whole economy (households, businesses, and governments) in data from the FRPS (FRPS, Federal Reserve System 2014). In 2000, the FRPS estimated that checks represented 58 percent of all payments; for 2012, they estimated that checks represented just 16 percent of payments by households, businesses, and governments (Figure 18).

However, as Figure 18 shows, U.S. consumers' use of noncash payment instruments differs somewhat from use by U.S. businesses, governments, and nonprofits. Consumers tend to rely more on debit cards and credit cards than do other entities. Consumers tend to rely less on checks and ACH than do businesses, governments, or nonprofits. For prepaid cards, the FRPS share is more than double the SCPC share, although in both studies the prepaid shares are much lower than the shares of debit, credit, checks, or ACH. Both data sources include generalpurpose reloadable (GPR) prepaid cards, prepaid cards for receipt of government benefits (electronic benefits transfer, or EBT), and payroll cards and other prepaid cards from employers as well as prepaid cards that are not reloadable and/or are restricted to a specific location or purpose (for example, rebate cards and gift cards). The discrepancy in the prepaid card shares between the FRPS and the SCPC likely arises from poor consumer recall of prepaid card transactions.<sup>40</sup> A more detailed survey questionnaire about prepaid card use could remedy this discrepancy in the future. In 2012, the FRPS estimated the shares of checks, credit and debit cards, and ACH (OBBP and BANP) that could be attributed to consumers. No estimate was made for the consumer use of prepaid cards, which are assumed to be almost entirely for consumer payments.

<sup>&</sup>lt;sup>40</sup> The SCPC asks consumers about their payment use during a typical month. It is possible that consumers receive or purchase prepaid cards only occasionally and therefore may not recall their prepaid card transactions when recording their typical monthly behavior.



Sources: 2009–2014 Survey of Consumer Payment Choice; 2000–2012 Federal Reserve Payments Study, 2000–2012 data (reported 2001–2013). Note: Money orders and traveler's checks are excluded. SCPC measurement month is October. FRPS estimates the number and value of all transactions conducted over U.S. noncash payment systems. FRPS annualized data are plotted at mid-year 2000, 2003, 2006, 2009, 2012. The shaded areas indicate recessions as defined by the NBER.

Figure 18: Shares of U.S. noncash payments, by payment instrument

#### B. Comparison with NACHA

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).<sup>41</sup> In principle, NACHA can identify all consumer-related electronic payments separately from electronic payments by businesses and governments.<sup>42</sup> However, the publicly available dataset

<sup>41</sup> For more information on FedACH, see <a href="http://frbservices.org/fedach/">http://frbservices.org/fedach/</a>; for more information on EPN, see <a href="http://www.epaynetwork.com/home.php">http://www.epaynetwork.com/home.php</a>.

<sup>&</sup>lt;sup>42</sup> For more information about NACHA's data classification, see Schuh and Stavins (2014) and <a href="https://www.nacha.org/achrules">https://www.nacha.org/achrules</a>.

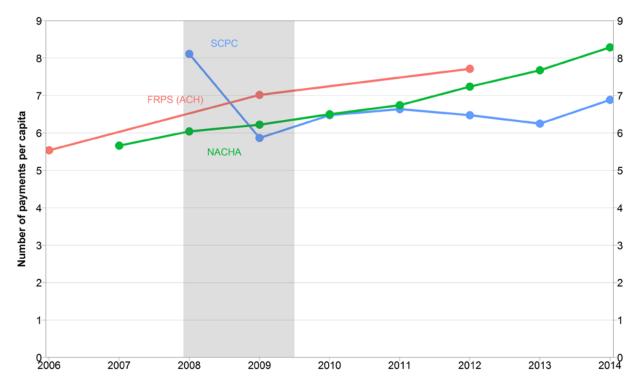
from NACHA does not provide sufficient detail on consumer-related electronic payments to enable exact matching of the SCPC concepts of consumer electronic payments. 43

For 2009–2011, the number of consumer electronic payments (OBBP + BANP) per month per capita reported in the SCPC is close to the corresponding estimate from NACHA, despite some definitional differences in the two measures (Figure 19). For 2008, however, the SCPC estimate of consumer electronic payments is about one-third higher than the NACHA estimate, although the OBBP and BANP definitions in the SCPC pertain only to certain subcategories of the NACHA consumer electronic payments data (Schuh and Stavins 2014). The SCPC and NACHA lines diverge again from 2012 through 2014. Figure 19 also plots the ACH data from the Federal Reserve Payments Study. The FRPS data include all ACH payments—consumer, business, and government payments—divided by the U.S. adult population.<sup>44</sup>

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<sup>&</sup>lt;sup>43</sup> 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 in helping us reconcile the two data sources.

<sup>&</sup>lt;sup>44</sup> In 2013, the FRPS began estimating consumer subtotals for credit, debit, and ACH payments. This analysis of trends relies on whole-economy data from 2013 and prior years. When business and government payments are included in the NACHA data, the FRPS and NACHA data are virtually identical.



Source: 2008–2014 Survey of Consumer Payment Choice (BANP + OBBP), NACHA, FRPS. Note: The shaded area indicates recession as defined by the NBER. NACHA estimate uses ACH Standard Entry Classes (SEC) identified as consumer codes. The FRPS estimate is for the total economy.

Figure 19: SCPC, NACHA (consumer) and FRPS (total) estimates of electronic payments per capita per month

## VII. Special Topics

New questions in the 2014 SCPC make it possible to examine the payments behavior of consumers identified as underbanked and also to gain insight into consumers' understanding and use of virtual currency, for example, bitcoin. Since its inception in 2008, the SCPC has provided data on consumers' assessments of payment instrument security and experience with loss and theft.

#### A. Financial inclusion

Worldwide, access to financial services is seen as a "bridge out of poverty." <sup>45</sup> The World Bank measures financial inclusion using three concepts: (1) access to financial services, (2) use of financial services, and (3) quality of product and service delivery. According to the World Bank, in 2014, 62 percent of adults worldwide had an account at a bank or another type of financial institution or with a mobile money provider. <sup>46</sup>

A goal of the Federal Reserve payment system improvement project is to assure a payment system that is not only fast, safe, and efficient, but also broadly accessible. In a 2011 speech, Federal Reserve Governor Sarah Bloom Raskin called inclusion in the financial marketplace "indispensably important to effective navigation of the twists and turns of life in the American economy."<sup>47</sup>

The SCPC has identified consumers without a checking or savings account (that is, those who are "unbanked") every year since its inception in 2008. As indicated above in Figure 5, the percentage of consumers with a bank account has remained fairly constant since 2008. In 2014, the SCPC found that 8.3 percent of U.S. consumers were unbanked (calculated as 100 percent minus the percentage of consumers who owned a checking or savings account at a bank, credit union, brokerage, or investment firm in October 2014).<sup>48</sup> From 2013 to 2014, the SCPC found no statistically significant change in the percentage of consumers identified as unbanked.

<sup>&</sup>lt;sup>45</sup>World Bank Group President Jim Yong Kim, quoted in a press release, "Massive Drop in Number of Unbanked, says New Report" (April 15, 2015) <a href="http://www.worldbank.org/en/news/press-release/2015/04/15/massive-drop-in-number-of-unbanked-says-new-report">http://www.worldbank.org/en/news/press-release/2015/04/15/massive-drop-in-number-of-unbanked-says-new-report</a>.

<sup>46</sup> Demirgüç-Kunt, (2014).

<sup>&</sup>lt;sup>47</sup> Raskin (2011).

<sup>&</sup>lt;sup>48</sup> Other estimates of unbanked consumers in the U.S. are 6 percent (World Bank, 2014 [Demirgüç-Kunt 2014]), 7.7 percent (FDIC, 2013 [FDIC 2014a]) and 13 percent (Federal Reserve Board, 2014 [Federal Reserve Board 2015b]). We do not analyze the reasons for these discrepancies.

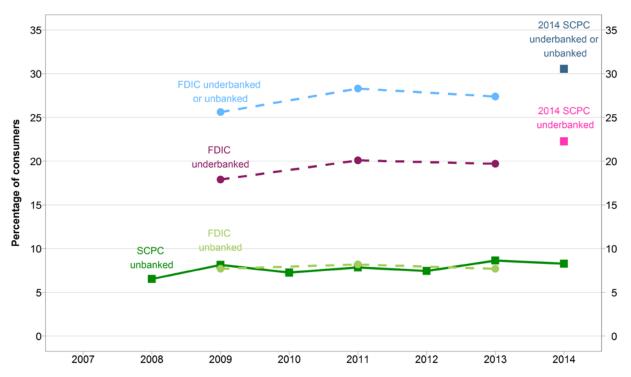
Biannually since 2011, the FDIC has conducted a survey to determine the size of the unbanked and underbanked markets in the United States, as required by law.<sup>49</sup> In 2014, to facilitate comparison between the SCPC and FDIC research, the SCPC added new questions to identify consumers who are underbanked and examine their payments behavior. Following the FDIC, the 2014 SCPC defines underbanked consumers as those who have a bank account and who have purchased any of five services from a nonbank in the past 12 months (money order, cashier's checks, check cashing, remittances, and payday loans) and/or who have used personal property to secure a loan at a pawn shop, used rent-to-own services, or taken out a tax refund anticipation loan.<sup>50</sup> In 2014, the SCPC found that 22.3 percent of U.S. consumers were underbanked based on the FDIC definition, compared with the FDIC finding of 19.7 percent in 2013 (Figure 20).<sup>51</sup>

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<sup>&</sup>lt;sup>49</sup> Section 7 of the Federal Deposit Insurance Reform Conforming Amendments Act of 2005 requires the FDIC to conduct ongoing surveys of banks' efforts to serve the unbanked, and to provide insights into the size of the unbanked and underbanked markets. The report of the 2015 FDIC survey is expected to be released in October 2016.

<sup>&</sup>lt;sup>50</sup> The 2014 SCPC questionnaire omitted one financial product included in the FDIC definition: auto-title loans. According to the 2013 FDIC survey, auto-title loans contributed 0.3 percent to the results.

<sup>&</sup>lt;sup>51</sup> This difference is within the margin of error of the SCPC estimate. The standard error for the SCPC estimate is 1.4 percent, for a 95 percent confidence interval from 19.5 percent to 25.1 percent.



Source: 2014 Survey of Consumer Payment Choice, Tables 1 and 19; FDIC (2014a). Note: FDIC, percentage of households; SCPC, percentage of individuals. The share of unbanked consumers is calculated as 100 percent minus the percentage of consumers who owned a checking or savings account at a bank, credit union, brokerage, or investment firm.

Figure 20: Percentage of U.S. consumers or households reported to be unbanked or underbanked

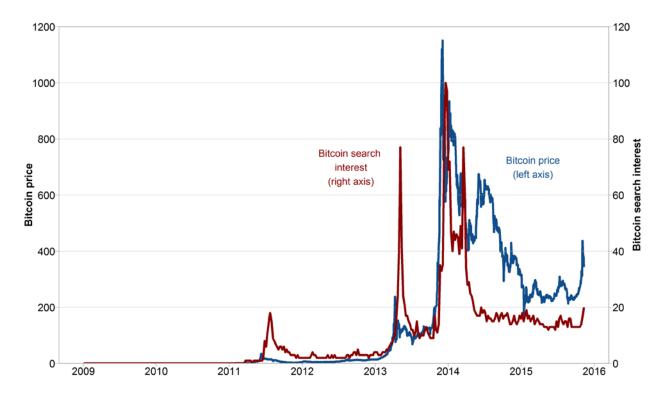
### B. Virtual currency<sup>52</sup>

In 2008, a writer under the purported pseudonym of Satashi Nakamoto published a paper (Nakamoto 2008) describing a new payment system called Bitcoin (with an uppercase "B") that is based a new type of private money called bitcoin (with a lowercase "b"), which is only available electronically (online). Since it was launched in 2009, bitcoin has gained notoriety as a speculative financial asset and vehicle for criminal activity.<sup>53</sup> Figure 21 tracks the popularity of Google keyword searches for "bitcoin" between 2008 and 2015 and the price of bitcoin since the first bitcoin were created ("mined") in 2009. The price of bitcoin peaked at \$1,151.00 in December 2013; in April 2014, the price of bitcoin ranged from \$400 to \$500.

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<sup>&</sup>lt;sup>52</sup> Information in this section draws heavily from Schuh and Shy (unpublished working paper).

<sup>&</sup>lt;sup>53</sup>Paul Vigna, "Bitcoin Startup Blockstream Raises \$55 Million in Funding Round," Wall Street Journal (February 3, 2016). Nicole Hong, "Liberty Reserve Founder Pleads Guilty to Money Laundering Charge," Wall Street Journal (January 29, 2016). Dan McCrum, "Bitcoin's place in the long history of pyramid schemes," Financial Times (November 10, 2015). Nathaniel Popper, "Bitcoin Basics," New York Times (November 4, 2015). "The trust machine," The Economist (October 31, 2015). Nathaniel Popper, "Can Bitcoin Conquer Argentina?" New York Times (April 29, 2015).



November 2008 Bitcoin: A Peer-to-Peer Electronic Cash System posted on the internet February 2011 Silk Road opens June 2011 Gawker article about Silk Road April 2013 Increased trading volume breaks Mt. Gox November 2013 New version of Silk Road website launches December 2013 Chinese government bans financial institutions from using bitcoin

February 2014 Mt. Gox closes

October 2015 *Economist* cover on "the promise of the blockchain"

*Source*: Google trends, blockchain.info, bitcoinhelp.net. *Note*: Google search interest is a relative index that compares searches on a particular term to total search queries. The highest point of interest for a date range is indexed to 100.

Figure 21: Bitcoin price (\$US) and popularity of Google keyword searches for "bitcoin"

Bitcoin has been described as a unique type of virtual currency (ECB 2012) with a complex technological structure that helps make it relatively secure (Velde 2013). Records of ownership are distributed to many computers on a network, making it difficult to counterfeit. As new bitcoin are created, it becomes increasingly difficult to create more. In addition to its potential as a currency, some observers believe that the underlying blockchain technology with its

decentralized ledger has the potential to influence the operation of the legal, healthcare, insurance, and financial industries, among many aspects of 21st century commerce.<sup>54</sup>

The emergence of Bitcoin raises questions about its potential role as a form of private (not government backed) money that functions as a medium of exchange and store of value. Badev and Chen (2014) describe the mechanics of bitcoin transactions and analyze transaction-level data. They note that transaction volume is "negligible" compared to the volume of U.S. payments, that bitcoin are used infrequently for retail payments, and that exchange between bitcoin and other currencies is costly. Lo and Wang (2014) find that bitcoin has limited acceptance for payment, so it is not currently an effective medium of exchange. Wide price swings (noted above) impair its ability to function as a unit of account and lead many to view it as a speculative investment. For tax purposes, the IRS treats bitcoin as property, not currency. Bitcoin, while the dominant private virtual currency, is not alone; by the end of 2015, some 700 private virtual currencies had emerged.<sup>55</sup>

However, there is no disagreement that bitcoin and other private virtual currencies, like cash or payment cards, also act as payment instruments that consumers are beginning to use to make payments. Individuals can store bitcoin in online wallets like Coinbase or Circle Internet Financial and send bitcoin to a payee's Bitcoin address. At some ecommerce sites (for example, Overstock.com), consumers can pay in bitcoin.

In light of these developments, the Boston Fed introduced questions about bitcoin and other virtual currencies into the 2014 SCPC. Given its capability to measure U.S. consumers' ownership and use of all mainstream payment instruments, the SCPC's incorporation of virtual currency questions provides a unique opportunity to understand early adoption and use of

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<sup>&</sup>lt;sup>54</sup> See, for example, Everett Rosenfeld, "<u>Forget currency, bitcoin's tech is the revolution</u>," CNBC (November 13, 2014) and Emily Glazer, "<u>IPMorgan Quietly Tests 'Blockchain' With 2,200 Clients</u>," *Wall Street Journal* (February 22, 2016).

<sup>55</sup> Mapofcoins.com.

virtual currencies by consumers.<sup>56</sup> Beginning in 2014, the SCPC added a few questions to assist with understanding virtual currencies as another payment choice in the consumer's wallet (Table III).<sup>57</sup>

#### Awareness

Have you heard of Bitcoin?

Have you heard of any other virtual currency? (if yes, please specify)

#### Adoption (conditional on awareness)

Do you have or own any bitcoin?

Do you have or own any other virtual currencies?

#### Historical adoption (conditional on awareness)

Have you ever had or owned any of these virtual currencies? [bitcoin]

Have you ever had or owned any of these virtual currencies? [Other VCs]

#### Amount owned (conditional on adoption)

How much virtual currency do you have or own? [coins, USD equivalent; bitcoin, other]

#### Incidence and frequency of use (conditional on adoption)

In the past 12 months, have you used virtual currency to make a payment or transaction? bitcoin, other]

Source: 2014 SCPC questionnaire, available in its entirety at http://www.bostonfed.org/economic/cprc/data-resources.htm.

#### Table III: 2014 SCPC virtual currency questions

As of October 2014, about four in 10 U.S. consumers had heard of (were aware of) any virtual currency. Most of these consumers had heard of bitcoin (Table IV). Aside from bitcoin, there is little awareness of virtual currencies among U.S. consumers. Of the 1 percent of consumers asserting awareness of some other virtual currency, two-thirds misidentified the term "other virtual currency" as referring to things that are not virtual currencies (for example, non-U.S. sovereign currencies, PayPal, and ApplePay).

In 2014, only 0.4 percent of consumers reported that they currently owned bitcoin or another virtual currency. Almost 1 percent (0.7) indicated that they had owned a virtual currency at some time in the past; consumers were much more likely to discard other virtual currency (0.3 percent) than bitcoin (0.1 percent). The 2014 SCPC asked consumers about use of virtual

<sup>56</sup> Polasik et al. (2015) provides interesting evidence about merchants and their acceptance of bitcoin for payment obtained from a recent international survey, but does not contain details about the consumers who paid these merchants in virtual currency.

<sup>&</sup>lt;sup>57</sup> In 2015, the Boston Fed expanded this line of inquiry and research with additional questions and implementations of the SCPC, as well as including virtual currency in the 2015 DCPC.

currency, but too few respondents had used virtual currencies to makes these results statistically valid. For a more comprehensive analysis of these and additional results, see Schuh and Shy (unpublished working paper).

	Bitcoin	Other virtual currency	Any type of virtual currency
Awareness	38.1	1.1	38.4
Adoption	0.3	0.2	0.4
Historical adoption	0.6	0.7	1.0
Discard rate	0.4	0.5	0.7

Source: 2014 Survey of Consumer Payment Choice, Tables 7, 8 and 9.58

Table IV: Virtual currency awareness and adoption (percentage of U.S. consumers).

### C. Payment system security

The Federal Reserve Financial Services strategic plan identifies security improvements as one of its top initiatives.<sup>59</sup> To cite one payment instrument, the Federal Reserve Board estimated debit-card fraud losses to all parties (merchants, cardholders, and issuers) to be \$1.57 billion, or 0.03 percent of total retail and food services sales of \$5 trillion, in 2013.<sup>60</sup> In addition, changes to card network rules in 2015 may affect consumers' experience of loss, theft, and fraud. On October 1, 2015, liability for point-of-sale payment-card fraud in most cases shifted to merchants who had not upgraded to chip-based card processing systems. The 2014 SCPC provides a baseline for assessing the efficacy of future developments in this area.

Since 2010, the SCPC has collected information about loss, theft, or fraudulent use of payment instruments.<sup>61</sup> This measure is not analogous to supply-side measures of loss, theft, and fraud because consumers might not be able to report along such finely tuned concepts, for example,

60 Federal Reserve Board press release (September 18, 2014)

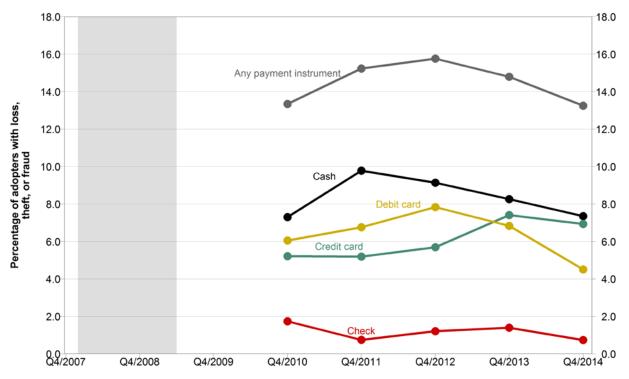
http://www.federalreserve.gov/newsevents/press/bcreg/20140918a.htm and Census Annual Retail Survey

<sup>&</sup>lt;sup>58</sup> Schuh and Shy (unpublished working paper), Tables 3 and 7, using the combined ALP and UAS sample, finds 0.71, 0.24, 0.84 as the historical adoption rates of bitcoin, other virtual currency, and any type of virtual currency, respectively. Using this sample, the discard rates were 0.24, 0.07, and 0.38 for the historical adoption of bitcoin, other virtual currency, and any type of virtual currency, respectively.

<sup>&</sup>lt;sup>59</sup> Fedpaymentsimprovement.org

<sup>&</sup>lt;sup>61</sup> The SCPC question is "In the past 12 months, have you had any of the following stolen or lost?"

distinguishing between theft and fraud. However, it gives a sense of the broad impact of security-related problems on consumers. Among four common instruments, adopting consumers were least likely to have loss, theft, or fraud problems with checks (0.7 percent of check adopters) and most likely to have loss, theft, or fraud problems with cash (7.4 percent of adopters) (Figure 22). The shares of credit card and debit card adopters experiencing such problems within the past 12 months were 6.9 and 4.5 percent, respectively. The share of consumers<sup>62</sup> who reported any incidence of loss, theft, or fraud in the previous 12 months was 13.1 percent, an insignificant change from 2013.



Source: 2010-2014 Survey of Consumer Payment Choice, Table 35. Note: The share of consumers who had adopted the payment instrument and had lost it or had it stolen in the past 12 months. The shaded area indicates recession as defined by the NBER.

Figure 22: Share of adopters who experienced loss, theft, or fraud, by payment instrument, 2010-2014

<sup>&</sup>lt;sup>62</sup> Since all consumers have adopted cash, the share of consumers is equivalent to the share of adopters.

In addition to questions about the incidence and amount of fraudulent charges, the 2014 survey asked respondents whether they had ever been a victim of identity theft.<sup>63</sup> In 2014, 38.0 percent of respondents reported they had, compared with 20.7 percent in 2013 (Table 35).<sup>64</sup>

Research shows that most consumer assessments of characteristics are correlated with consumer adoption and use of payment instruments.<sup>65</sup> Several studies have found security and identity theft to be important for payments adoption and use (see Stavins 2013 and Kahn and Liñares-Zegarra 2013). The SCPC asks respondents to rate the security of each payment instrument on an absolute scale of 1 to 5 for each payment instrument, where 1 is the least desirable (least secure) and 5 is the most desirable (most secure). In general, a lower rating means that a consumer considers that payment method to be inferior with respect to security. Note that the numeric values represent qualitative ranking and do not reflect underlying quantitative measures like dollar values.

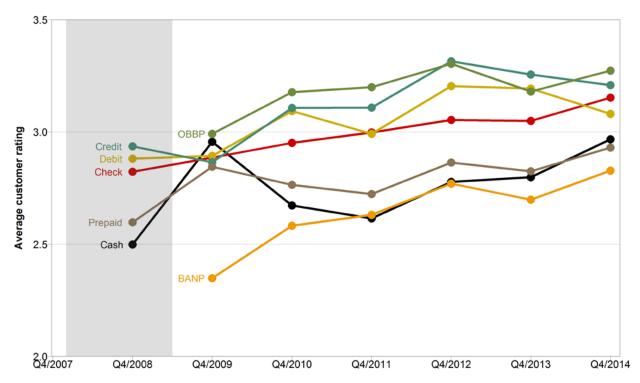
Consumer assessments of security of payment instruments did not change significantly from 2013 to 2014 (Figure 23). Greene and Stavins (2016) find that consumers who assessed debit card security of personal information after announcement of the 2013 Target data breach rated this aspect of debit card security less favorably than consumers who rated debit card security of personal information before the announcement. Since 2008 (2009 for BANP), security assessments generally have trended upward slowly.<sup>66</sup>

<sup>&</sup>lt;sup>63</sup> "Have you, or anyone you know well (family, friends, neighbors, coworkers, etc.) ever been a victim of what you consider to be identity theft?"

<sup>&</sup>lt;sup>64</sup> For 2016, this question will be revised to identify respondents who have been a victim of identity theft in the preceding 12 months. The statistical hypothesis of no change in the direct or indirect experience of identity theft from 2013 to 2014 can be rejected at the 99 percent significance level.

<sup>&</sup>lt;sup>65</sup> For examples, see Schuh and Stavins (2010, 2013, 2015) and Koulayev et al. (forthcoming), and the references in these citations.

<sup>&</sup>lt;sup>66</sup> Security ratings of cash, check, credit, prepaid, and debit all increased significantly from 2008 to 2014. Changes were significant at the 99 percent level for all instruments except debit (significant at the 90 percent level). For 2009 to 2014, ratings of all payments instruments except prepaid and cash increased significantly at the 95 percent level.



*Source*: 2014 Survey of Consumer Payment Choice, Table 37f. *Note*: Payment instruments were rated on a scale of 1 to 5, where 1 is least secure and 5 is most secure. The shaded area indicates recession as defined by the NBER.

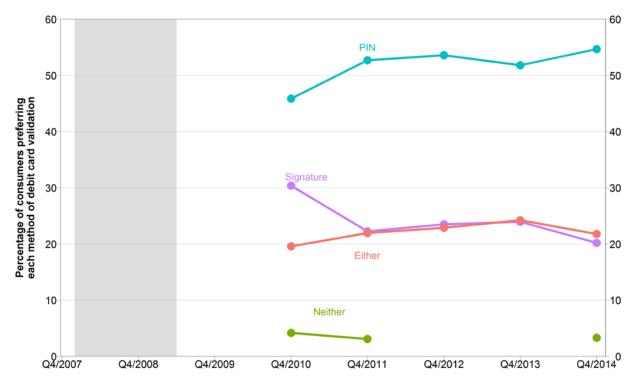
Figure 23: Average rating of security of payment instruments, 2008–2014

In 2014, consumers continued to prefer PIN debit card payments over other methods of debit card authorization (Figure 24). Authorization methods include entering a personal identification number (PIN) or signing (signature); sometimes no authorization is required. The percentage of consumers who preferred PIN debit authorization was 56.6, compared to 51.8 in 2013. In 2014, 20.9 percent of consumers preferred signature authorization and 21.6 percent were indifferent. The overall change in the shares of responses from 2013 to 2014 is statistically significant.<sup>67</sup>

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 25; for more information on consumers' assessments of security by debit card authorization, see Stavins

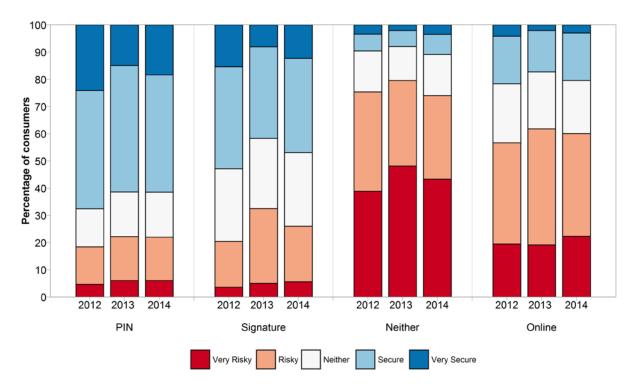
<sup>&</sup>lt;sup>67</sup> The statistical hypothesis of no change in the combination of percentage of consumers who prefer PIN, signature, or are indifferent from 2013 to 2014 can be rejected.

2013). The share of consumers who considered debit card very secure declined in 2014 for both PIN and signature debit.



Source: 2010–2014 Survey of Consumer Payment Choice, Table 37q. Note: The shaded area indicates recession as defined by the NBER.

Figure 24: U.S. consumer preferences for authorizing a debit card payment, 2010–2014



Source: 2014 Survey of Consumer Payment Choice, Table 37p.

Figure 25: U.S. consumer security assessments for authorizing a debit card payment, 2014

### VIII. Conclusions

The 2014 SCPC provides 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 years, the SCPC begins to suggest trends in consumer payments. One ongoing trend is a steady decline in check payments at an average rate of nearly 10 percent per year from 2008 to 2014. This trend agrees with a longer-term trend in check use by the whole economy at least since 2000, as identified by the FRPS. Money orders and traveler's checks have shown similar declines. Debit cards, cash, and credit cards continued to be the three most common instruments used by consumers for payment. The share of electronic payments increased significantly from 2013 to 2014, although that share is still substantially below the share of either card or paper payments.

Another recent trend is the steady increase in consumers' adoption of nonbank payment accounts (for example, PayPal) since 2011. More than half of U.S. consumers owned these

accounts in 2014. In addition, two in 10 consumers owned GPR prepaid cards, which can be used to receive and store money as well as to make payments. New questions in 2014 about bitcoin and other virtual currencies reveal that awareness is relatively low (four in 10 consumers) and very few consumers have adopted this new way to pay. The overall picture of consumer payments that emerges from the 2008–2014 SCPC may provide useful information and background for assessing potential policy changes, such as those discussed in the Federal Reserve's strategic plan for the U.S. payment system (Federal Reserve System 2015a). For example, despite frequent security breaches in recent years, consumers' assessments of the quality of payment security generally have improved since 2008. Consumers continue to prefer PIN as a method of authorizing debit card payments, and so far there is no apparent evidence that Regulation II (debit card interchange fees) has had a measurable impact on consumer preferences.

### IX. Survey Methodology and Data

Most of the survey methodology for the 2014 SCPC is the same or very similar to that used in the 2013 SCPC, as documented in Schuh and Stavins (2014 and 2015a).

#### A. Sample

As noted above, the results reported in the official tables accompanying this paper include 1,809 respondents from the RAND ALP. The ALP survey responses were weighted to represent all U.S. consumers 18 years old and older. Of the 1,809 RAND ALP respondents, 1,448 (80 percent) were also in the 2013 SCPC, 68 1,643 (91 percent) were also in the 2012 SCPC, 1,036 respondents (57 percent) completed six consecutive surveys from 2009 to 2014, and 296 respondents (16 percent) completed all seven surveys since 2008.69

<sup>&</sup>lt;sup>68</sup> To improve the representativeness of the SCPC longitudinal panel sample, in 2012 we replaced some of the longitudinal sample (2008–2012) with targeted respondents. While this change improved the SCPC sample and estimates, it also resulted in a lower percentage of respondents who took the SCPC in both 2012 and in 2013.

<sup>&</sup>lt;sup>69</sup> A report comparing the results of the two samples who took the identical 2014 survey—RAND ALP and USC UAS—and the implications for accurate population estimates is expected to be released later in 2016.

#### B. Questionnaire changes

In 2013 a supplemental questionnaire to the SCPC included detailed questions about payment speed and security as well as some questions previously included in the core SCPC. The combined 2013 SCPC therefore comprised two questionnaires. In 2014, we returned to the single questionnaire format and had to delete some questions because of time constraints.

#### Questions about the following were omitted:

- How consumers accessed their bank accounts in the prior 12 months. For information about bank account access methods in prior years see Schuh and Stavins (2015b).
- Type of financial institution holding the respondent's primary savings account
- Which payment characteristic is most important for deciding use
- Mobile payments<sup>71</sup>
- Follow-up questions about use and funding sources for nonbank payment services
- Interest rate paid on credit card with largest revolving balance.

As noted above, questions about underbanked status, virtual currency awareness and holdings, and identity theft were added. For detail about questionnaire changes, see the technical appendix (Angrisani, Foster, and Hitczenko 2016).

#### C. Data revisions

Readers of the tables will notice a superscript "r" next to the columns for the 2012 and 2013 estimates in Tables 6 and 7, indicating that two estimates in these columns were revised to

<sup>&</sup>lt;sup>70</sup> In prior years, the SCPC asked consumers to report the different ways in which they accessed their bank accounts, including by visiting a teller, via ATM machine, online banking, mobile banking, or telephone banking. For information about account access 2008–2013, see Schuh and Stavins (2015b), Figure 14 and Table 19.

<sup>&</sup>lt;sup>71</sup> SCPC questions used in 2013 and prior years are incorporated in Federal Reserve Board (2015b).<sup>72</sup> The data are available from <a href="http://www.bostonfed.org/economic/cprc/SCPC/index.htm">http://www.bostonfed.org/economic/cprc/SCPC/index.htm</a>.

correct a coding error: "demand deposit accounts, consumer" and "bank account number payment."

#### D. 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.<sup>72</sup> The dataset, which is provided in multiple formats (SAS, Stata, and CSV), contains all of the 2014 survey responses at the individual-respondent level, with all data cleaning and adjustments done by the CPRC. The SCPC data website also contains the 2014 survey questionnaire and supplement, a codebook for data users, and standard errors corresponding to the estimates in the tables.<sup>73</sup> 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 2016) for detailed instructions.<sup>74</sup> 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 by the adult population.<sup>75</sup> More research and development of the SCPC sampling weights, currently ongoing, is 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 available survey datasets (2008–2014) 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 uncomparable between years (these are indicated by the italicized numbers in the official tables). The CPRC hopes to release an official longitudinal dataset and to document and adjust for these

<sup>&</sup>lt;sup>72</sup> The data are available from <a href="http://www.bostonfed.org/economic/cprc/SCPC/index.htm">http://www.bostonfed.org/economic/cprc/SCPC/index.htm</a>.

<sup>&</sup>lt;sup>73</sup> 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.

<sup>74</sup> http://www.bostonfed.org/economic/cprc/SCPC/index.htm

<sup>&</sup>lt;sup>75</sup> 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 similar types of estimates.

differences in the future. The longitudinal dataset is expected to include longitudinal sample weights; ongoing research is being conducted to find the best methodology to construct these 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 easily be merged with the Boston Fed's dataset. For information on how to merge the two datasets, see the Technical Appendix (Angrisani, Foster, and Hitczenko 2016).

## X. Definitions of 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. 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.

## A. Banking Concepts

Concept	Definition
Asset	Any item of monetary value, including bank accounts, real estate, stocks, bonds, annuities, retirement accounts, motor vehicles, jewelry, rare or collectible goods, and personal or household goods.
Automated Teller	A machine that allows customers to access their bank accounts with an ATM
Machine (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. Includes regular or internet-based commercial banks, credit unions,
	and savings and loan associations.
Checking account	An account that allows a customer to make payments or withdrawals as often
	as necessary, using checks, debit or ATM cards, or 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 a
	regular savings account. 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 allow the customer write up to three
	checks each month.
Nonbank online	A payment service provided by a company that is not a bank. These services
payment account	allow an individual 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 at rates that are usually
	higher than rates 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.

## B. Payment Instruments

Concept	Definition
Bank account number	A payment made by providing one's bank account number to a third party,
payment (BANP)	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	A payment made from a bank's online banking website or online mobile app
payment (OBBP)	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 his or her bank account number to a third party.
Prepaid card	A card that either stores or records a dollar value. Also known as a stored value
	card or gift card. 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, for example, a phone card, are for specific types of payment, and others,
	like a NetSpend or Green Dot card, work for many types of payment. In
	addition, there are government-issued prepaid cards, such as an EBT, Direct
	Express, SNAP, and TANF card. 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, such as a monthly public transit pass,
	may be valid for use over a specific period of time, rather than having the value
T	of the payment 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
Deduction from	a specific amount of money.  Direct payments from income, for example, automatic deductions for an
	Direct payments from income, for example, automatic deductions for an
income	employee's portion of health insurance or for transportation expenses (applies
	only for automatic bill payments).

### C. 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 a 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.
Discard 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.
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.
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.

<sup>\*</sup>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.

## D. 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.

# E. 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 be paid directly from the consumer's income.
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 one mails in, pays in person, or calls in on one's 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, or 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.

## F. Payment Instrument Characteristics

Concept	Definition
Acceptance for payment	Please rate how likely each payment method is to be <b>ACCEPTED</b> for
	payment by stores, companies, online merchants, and other people
	or organizations.
Convenience	Please rate the <b>CONVENIENCE</b> of each payment method.
	Examples: speed; record keeping; control over payment timing; ease of use;
	effort to carry, get, or set up; ability to keep or store.
Cost	Please rate the <b>COST</b> of using each payment method.
	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.
Getting & setting up	Rate the task of GETTING & SETTING UP each payment method
	before you can use it.
	Examples: getting cash at the ATM, length of time to get or set up a credit
	card, learning to use or install online banking bill pay.
Payment records	Rate the quality of <b>PAYMENT RECORDS</b> offered by each method
	of payment. Consider both paper and electronic records.
	Examples: proof of purchase, account balances, spending history, usefulness
	in correcting errors or dispute resolution, and ease of storage.
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.

## G. Other Terms and Concepts

Concept	Definition
Contactless payment	Allows the consumer to make a payment by tapping or waving a card or
technology	other instrument near a special electronic reading device without swiping,
	signing, or entering a personal identification number.
Electronic toll payment	A contactless payment technology that allows 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 by other methods.
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.

Concept	Definition
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 enables the customer to avoid incurring 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, salary, or other income payment (such as interest, dividends, social security payments, retirement plan distributions, alimony, child support, welfare, trust fund distributions, or other money received).
Reward	Any type of benefit given to payment cardholders when they use their card 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.
Unbanked	A person who does not have any checking or savings accounts at a bank, credit union, brokerage, or investment firm.
Underbanked	Following the FDIC definition, a person who has a checking or savings account and who has purchased any of five services from a nonbank in the past 12 months (money order, cashier's checks, check cashing, remittances, and payday loans) and/or who has used personal property to secure a loan at a pawn shop, used rent-to-own services, or taken out a tax refund anticipation loan.
Virtual currency	Virtual or digital currencies exist online and are different from U.S. dollars $(\$)$ , the euro $(\$)$ , or other official foreign currencies.

### XI. SCPC Board of Advisors, 2016

**Barbara Bennett** (joined 2009) Federal Reserve System

**Debbie Bianucci** (2013)

Bank Administration Institute

**Andrew Caplin** (2009) New York University

Christopher Carroll (2014)

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Bob Chakravorti (2012)

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**Bureau of Labor Statistics** 

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Geoffrey Thomas (2011–2012)

Citizens Bank

Chris Van Steenberg (2013–2015)

Citizens Bank

Adrienne Wells (2009–2010)

FRB Atlanta

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## XIII. 2014 SCPC Tables

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#### **Notes to the SCPC Tables**

Numeric superscripts in the 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 X, Definitions of Concepts.

### Footnote Description

#### General

- Superscript "r" indicates that numbers in the table may have been revised; that is, 2012 or 2013 data may have been updated since the initial release.
- The notation "na" indicates that the estimate is not available, often because the related survey question was not asked in the associated year.
- 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. Growth rates may not match the displayed estimates due to rounding.
- 5 Dollar values are not adjusted for inflation [applies to Tables 14, 15, 16, 18, 39, 41, Appendix 15z].
- The nine available payment instruments are cash, check, money order, traveler's check, debit card, credit card, prepaid card, online banking bill payment, and bank account number payment [applies to Tables 13, 34].

### **Adoption**

- Adoption of payment instrument means the consumer had the instrument, with the following exceptions:

  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 the given year [applies to Tables 6, 7, 8, 13, 22, 23b].

  b. For money order, traveler's check, bank account number payment, and direct deduction from income, adoption means the consumer used the instrument or method in the given year [applies to Tables 6, 7, 8, 13, 15, 18, 22, 23b].
  - c. 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, 8, 13, 23b]
- Historical adoption or ownership includes current adopters as well as respondents who 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, 8].
- 9 Discarded refers to the difference between historical adoption or ownership and current adoption or ownership rates [applies to Tables 3, 9].
- 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 10, 12].

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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 one's bank; (4) transferred money between two accounts; (5) taken a photo of a check to deposit it; (6) sent a text message to one's bank [applies to Tables 1, 2, 3, and 21].

### **Prepaid Cards**

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 11].

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A reloader is someone who has reported having adopted a prepaid card that is reloadable and having added money to it in the past 12 months [applies to Table 19].

### Other

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

Table 1
Current Ownership of Accounts and Account Access Technologies
Percentage of consumers

	2012	2013	2014
Deposit and payment accounts	98.8	96.1	96.7
Bank deposit accounts	92.5	91.3	91.7
Checking	91.4	90.4	90.7
Primary account earns interest	44.9	39.7	38.2
Has overdraft protection	69.5	68.3	71.9
Savings	75.8	74.4	74.7
Nonbank payment accounts	53.5	54.7	55.8
Amazon payments	14.4	18.3	15.2
Google checkout	3.0	5.2	4.8
PayPal	49.0	49.5	52.0
Other	1.5	1.5	1.6
Other accounts	87.8	85.3	86.5
Prepaid cards (bank and nonbank)	52.3	50.4	51.9
Credit and charge cards	72.1	70.3	72.1
Deposit account access technologies	88.9	87.9	88.5
ATM card	83.6	82.9	84.0
ATM card (no debit feature)	39.2	38.4	37.8
Debit card	78.5	77.8	78.6
Telephone banking	31.6	41.2	35.5
Online banking	72.0	71.6	74.0
Mobile banking	35.8	48.5	na
Mobile banking app installed	22.3	34.8	na
Information and communication technologies	95.2	94.0	94.1
Mobile phone	94.8	94.0	94.1
Smart phone (iPhone, Android, BlackBerry, etc.)	52.7	62.4	69.7
Tablet	28.7	na	na

Notes: 1-4, 11.

Table 2
Historical Ownership of Accounts and Account Access Technologies
Percentage of consumers

	2012	2013	2014
Deposit and payment accounts	99.2	97.7	98.8
Bank deposit accounts	96.0	95.5	96.7
Checking	95.7	94.9	95.7
Primary account earns interest	na	na	na
Has overdraft protection.	na	na	na
Savings	90.2	90.3	92.1
Nonbank payment accounts	na	na	na
Amazon payments	na	na	na
Google checkout	na	na	na
PayPal	na	na	na
Other	na	na	na
Other accounts	95.9	93.0	94.2
Prepaid cards (bank and nonbank)	79.8	72.9	77.2
Credit and charge cards	86.3	85.0	85.7
Deposit account access technologies	98.2	93.4	94.8
ATM card	89.9	90.4	91.9
ATM card (no debit feature)	63.5	63.2	62.8
Debit card	85.0	84.9	87.6
Telephone banking	44.9	50.6	45.3
Online banking	76.6	78.1	80.4
Mobile banking	46.6	48.7	na
Mobile banking app installed	26.9	na	na
Information and communication technologies	97.9	97.1	97.5
Mobile phone	97.9	97.1	97.5
Smart phone (iPhone, Android, BlackBerry, etc.)	na	na	na
Tablet	na	na	na

Notes: 1–4, 8, 11.

Table 3

Discarding of Accounts and Account Access Technologies

Percentage of consumers

	2012	2013	2014
Deposit and payment accounts	0.6	1.5	2.2
Bank deposit accounts	3.4	4.1	4.6
Checking	4.2	4.5	4.9
Primary account earns interest	na	na	na
Has overdraft protection	na	na	na
Savings	14.3	15.8	17.1
Nonbank payment accounts	na	na	na
Amazon payments	na	na	na
Google checkout	na	na	na
PayPal	na	na	na
Other	na	na	na
Other accounts	8.1	8.0	7.8
Prepaid cards (bank and nonbank)	27.5	22.4	25.2
Credit and charge cards	14.2	14.7	13.6
Deposit account access technologies	4.8	5.5	5.9
ATM card	6.2	7.2	7.4
ATM card (no debit feature)	24.1	24.5	24.4
Debit card	6.2	7.0	8.6
Telephone banking	13.1	9.1	9.3
Online banking	4.6	6.2	6.0
Mobile banking	7.1	0.3	na
Mobile banking app installed	2.3	na	na
Information and communication technologies	3.1	3.1	3.3
Mobile phone	3.1	3.1	3.3
Smart phone (iPhone, Android, BlackBerry, etc.)	na	na	na
Tablet	na	na	na

Notes: 1-4, 9, 11.

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

Percentage of consumers*	2012	2013	2014
Primary checking account	91.4	90.4	90.7
Commercial bank	61.1	59.6	60.0
Savings and loan	7.3	5.4	6.6
Credit union	21.3	17.7	21.3
Brokerage	0.3	0.4	0.3
Internet bank	0.7	0.5	1.2
Other	0.6	1.0	0.5
Primary savings account	75.8	74.4	74.7
Commercial bank	37.3	42.4	na
Savings and loan	6.1	4.9	na
Credit union	26.0	23.6	na
Brokerage	1.5	1.1	na
Internet bank	3.0	1.8	na
Other	0.7	0.4	na
Percentage of account adopters†	2012	2013	2014
Primary checking account	100.0	100.0	100.0
Commercial bank	66.9	70.6	66.7
Savings and loan	8.0	6.3	7.3
Credit union	23.4	20.9	23.7
Brokerage	0.3	0.5	0.3
Internet bank	0.8	0.6	1.4
Other	0.7	1.1	0.6
Primary savings account	100.0	100.0	100.0
Commercial bank	50.0	57.3	na
Savings and loan	8.2	6.6	na
Credit union	34.8	31.9	na
Brokerage	2.1	1.4	na
Internet bank	4.0	2.4	na

<sup>\*</sup> Due to missing values, percentages do not add up to the percentage of adopters of checking or savings accounts from Table 1.

<sup>†</sup> Adopters are respondents who have identified themselves as owning and/or using that type of account. For example, 66.7 percent of checking account adopters identified "commercial bank" as the location of their primary checking account in 2014.

Table 5
Interest Rates on Primary Accounts
Percentage of adopters of checking or savings accounts

	2012	2013	2014
Checking account interest rate			
0%	44.0	48.6	48.0
0.01–0.05	28.5	25.9	24.5
0.06–0.10	4.6	4.3	4.0
0.11–0.15	1.7	1.2	1.9
0.16–0.20	1.0	0.7	1.2
0.21–0.25	1.2	1.6	1.2
0.26–0.50	1.3	0.5	0.5
0.51-0.75	1.1	1.2	1.0
0.76–1.00	1.5	1.2	0.6
1.01–1.50	1.7	1.3	1.2
1.51–2.00	1.2	0.7	0.5
2.01–2.50	0.5	0.3	0.4
2.51–3.00	0.6	0.6	0.9
More than 3%	0.1	0.4	0.3
Don't know	11.2	11.7	13.8
Savings account interest rate			
0%	na	11.8	11.1
0.01–0.05	na	39.8	43.8
0.06-0.10	na	8.9	8.3
0.11–0.15	na	2.2	2.1
0.16-0.20	na	2.0	2.2
0.21–0.25	na	3.1	2.5
0.26–0.50	na	3.3	2.5
0.51-0.75	na	2.8	2.9
0.76–1.00	na	3.6	3.9
1.01–1.50	na	3.5	2.9
1.51–2.00	na	1.8	1.1
2.01–2.50	na	0.7	0.5
2.51–3.00	na	0.6	0.2
More than 3%	na	1.0	0.6
Don't know	na	15.0	15.4

Notes: 2, 4.

Table 6

Current Adoption of Payment Instruments, by Type of Asset or Liability

Percentage of consumers

	2012 <sup>r</sup>	2013 <sup>r</sup>	2014
Assets	100.0	99.9	99.8
Money (M1)*	100.0	99.9	99.8
Cash (currency)	100.0	99.7	99.8
Traveler's check	1.4	1.5	0.8
Demand deposit accounts, consumer	91.8	90.9	91.4
Checks	85.4	82.9	82.7
Certified	4.4	4.7	4.2
Debit card	78.5	77.8	78.6
Online banking bill payment	55.3	54.1	57.1
Bank account number payment	60.1	59.9	62.1
Other deposit accounts			
Cashier's check	8.2	9.1	7.5
Private currency	na	na	0.4
Bitcoin	na	na	0.3
Other kinds of virtual currency	na	na	0.2
Unknown asset type†	67.3	67.2	66.6
Money order	21.7	20.6	17.6
Prepaid card	52.3	50.4	51.9
Liabilities	73.1	74.5	72.1
Credit or charge card	72.1	70.3	72.1
Credit	71.6	69.9	71.8
Charge	10.9	6.4	5.9
Text/SMS mobile payment	2.8	12.2	na
Other means of payment	16.4	18.0	17.2
Direct deduction from income	16.4	18.0	17.2

<sup>\*</sup> For official definition of M1, see Federal Reserve Statistical Release H.6.

<sup>†</sup> These types are "unknown" because it is not known whether the underlying funds are held in a deposit account or not.

<sup>&</sup>lt;sup>r</sup> Estimates for the rows "demand deposit accounts, consumer" and "bank account number payment" were revised to correct a coding error. Notes: 1–4, 7.

Table 7

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

Percentage of consumers

	2012 <sup>r</sup>	2013 <sup>r</sup>	2014
Paper instruments	100.0	99.9	99.8
Cash	100.0	99.7	99.8
Checks	85.4	82.9	82.7
Certified check	4.4	4.7	4.2
Cash and check substitutes	29.8	28.3	25.0
Money order	21.7	20.6	17.6
Traveler's check	1.4	1.5	0.8
Cashier's check.	8.2	9.1	7.5
Payment cards	97.1	94.9	95.4
Debit	78.5	77.8	78.6
Credit or charge	72.1	70.3	72.1
Credit	71.6	69.9	71.8
Charge	10.9	6.0	5.0
Prepaid	52.3	50.4	51.9
Electronic payments	77.6	76.5	78.5
Online banking bill payment	55.3	54.1	57.1
Bank account number payment	60.1	59.9	62.1
Private currency	na	na	0.4
Bitcoin	na	na	0.3
Other kinds of virtual currency	na	na	0.2
Other means of payment	16.4	18.0	17.2
Direct deduction from income	16.4	18.0	17.2
Addendum: Virtual currency awareness	na	na	38.4
Bitcoin	na	na	38.1
Other kinds of virtual currency	na	na	1.1

<sup>&</sup>lt;sup>r</sup> Estimates for the row "bank account number payment" were revised to correct a coding error. Notes: 1–4, 7.

Table 8
Historical Adoption of Payment Instruments, by Form of Instrument and Other Means of Payment
Percentage of consumers

	2012	2013	2014
Paper instruments	na	na	na
Cash	na	na	na
Checks	na	na	na
Certified check	na	na	na
Cash and check substitutes	na	na	na
Money order	80.9	80.9	80.8
Traveler's check	na	na	na
Cashier's check	na	na	na
Payment cards	98.7	97.2	98.4
Debit	85.0	84.9	87.6
Credit or charge	86.3	85.0	85.7
Credit	na	na	na
Charge	na	na	na
Prepaid	79.8	72.9	77.2
Electronic payments	na	na	na
Online banking bill payment	61.0	62.1	64.5
Bank account number payment	na	na	na
Private currency	na	na	1.0
Bitcoin	na	na	0.6
Other kinds of virtual currency	na	na	0.7
Other means of payment	na	na	na
Direct deduction from income	na	na	na

Notes: 1–4, 7, 8.

Table 9

Discarding of Payment Instruments, by Form of Instrument and Other Means of Payment
Percentage of consumers

	2012	2013	2014
Paper instruments	na	na	na
Cash	na	na	na
Checks	na	na	na
Certified check	na	na	na
Cash and check substitutes	na	na	na
Money order	59.4	60.4	63.2
Traveler's check	na	na	na
Cashier's check	na	na	na
Payment cards	1.7	2.3	3.1
Debit	6.2	7.0	8.6
Credit or charge	14.2	14.7	13.6
Credit	na	na	na
Charge	na	na	na
Prepaid	27.5	22.4	25.2
Electronic payments	na	na	na
Online banking bill payment	5.9	7.9	7.3
Bank account number payment	na	na	na
Private currency	na	na	0.7
Bitcoin	na	na	0.4
Other kinds of virtual currency	na	na	0.5
Other means of payment	na	na	na
Direct deduction from income	na	na	na

Notes: 1-4, 9.

Table 10
Current Adoption of Debit, Credit, and Charge Cards, by Instrument Type and Features
Percentage of consumers

	2012	2013	2014
Debit cards	78.5	77.8	78.6
Rewards	20.2	18.0	15.9
Contactless	10.2	10.8	na
Credit cards or charge cards	72.1	70.3	72.1
Rewards	56.4	54.8	57.5
Nonrewards	42.1	40.2	37.7
Credit cards	71.6	69.9	71.8
Rewards	55.3	54.7	57.3
Nonrewards	41.9	40.1	37.6
Contactless.	10.1	9.4	na
General purpose	70.8	69.0	70.5
Rewards	52.6	52.9	54.8
Nonrewards	32.0	31.3	31.0
Visa, MasterCard, Discover	70.2	68.5	70.0
Visa	na	59.9	60.8
MasterCard	na	44.2	45.0
Discover	na	20.1	19.6
American Express	11.8	16.2	16.2
Company or store branded	45.4	45.3	44.9
Rewards	22.0	20.1	22.5
Nonrewards	24.0	23.8	20.5
Charge cards	10.9	6.0	5.0
Rewards	7.4	3.5	3.1
Nonrewards	1.6	1.3	1.2
American Express charge cards	10.3	5.5	4.1
Rewards	7.1	3.3	3.0
Nonrewards	1.2	1.2	0.8
Diners Club or other charge cards	1.8	0.9	1.1
Rewards	0.6	0.2	0.1
Nonrewards	0.5	0.1	0.4

Notes: 1-4, 10.

Table 11

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

Percentage of consumers

	2012	2013	2014
Prepaid cards	52.3	50.4	51.9
Contactless	3.3	3.2	na
Government related	19.5	11.5	10.9
Direct express card	1.6	1.4	1.5
Electronic benefits transfer (EBT) card	11.1	10.1	9.5
Public transportation card	8.4	9.2	8.9
Other federal, state, or local government benefit card	2.6	2.2	2.1
Employer related	11.5	12.4	12.9
Payroll card	2.1	1.3	1.1
Incentive card	2.2	1.4	1.2
Benefit card	8.7	10.3	11.0
Other	40.7	41.1	41.2
Gift card	32.3	26.4	27.7
Phone card	6.2	3.7	2.8
Remittance card	0.8	0.3	0.0
Rebate card	7.9	6.3	5.2
Location specific card	2.6	2.1	1.7
Other general purpose card	9.7	9.6	9.6
Contactless Technologies	27.9	29.8	na
Any payment card	18.5	19.9	na
Electronic toll payment	10.6	12.0	na
Mobile app	na	4.4	na
Key fob	1.8	1.5	na
Mobile phone*	1.0	2.1	na

<sup>\*</sup> Adoption means the consumer had and used the instrument in a given year.

Notes: 1-4, 7, 12.

Table 12
Number of Adopted Accounts and Payment Cards
Mean number per adopter\*

	2012	2013	2014
Deposit accounts	3.1	2.9	3.0
Checking	1.6	1.6	1.6
Savings	1.8	1.7	1.8
Payment cards	6.3	6.5	6.6
ATM card	2.1	2.1	2.1
ATM card (no debit feature)	1.4	1.5	1.4
Debit card	1.6	1.5	1.5
Credit cards or charge cards	4.0	4.1	4.1
Rewards	2.3	2.5	2.6
Nonrewards	1.7	1.7	1.5
Credit cards	3.9	4.1	4.0
Rewards	2.2	2.4	2.5
Nonrewards	1.7	1.7	1.5
General purpose	2.4	2.7	2.8
Rewards	1.6	1.8	1.9
Nonrewards	0.9	1.0	0.9
Branded	1.5	1.4	1.3
Rewards	0.7	0.7	0.8
Nonrewards	0.9	0.9	0.8
Charge cards	0.2	0.1	0.1
Rewards	0.1	0.1	0.1
Nonrewards	0.0	0.0	0.0
Prepaid cards	2.8	2.8	3.0
Government related	0.3	0.3	0.3
Employer related	0.2	0.3	0.3
Other	2.1	1.9	2.1

<sup>\*</sup> 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.

Table 13

Mean Number of Payment Instruments Adopted by Account and Payment Instrument Adopters

Mean number per consumer or adopter

	2012	2013	2014
Available number of payment instruments (all consumers)	9	9	9
Total (all consumers)	5.3	5.2	5.3
Paper instruments	2.1	2.1	2.1
Card instruments	2.0	2.0	2.0
Electronic instruments	1.2	1.1	1.2
Deposit account adopters	5.6	5.6	5.6
Checking and savings account adopters	5.7	5.7	5.7
Checking account adopters, no savings	5.1	5.0	5.4
Savings account adopters, no checking	S	S	S
Paper instrument adopters	5.3	5.2	5.3
Cash adopters	5.3	5.2	5.3
Check adopters	5.6	5.6	5.7
Money order adopters	5.7	5.7	5.5
Traveler's check adopters	S	s	S
Payment card adopters	5.4	5.4	5.5
Debit card adopters	5.8	5.8	5.8
Credit card adopters	5.8	5.8	5.8
Prepaid card adopters	5.8	5.9	5.9
Electronic payment adopters	5.9	5.9	5.9
Online banking bill payment adopters	6.2	6.2	6.1
Bank account number payment adopters	6.1	6.1	6.1
Deposit account nonadopters	2.3	1.9	1.9

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

Table 14
Liquid Asset Balances
Dollars per consumer, except as noted

	Mean				Median		
	2012	2013	2014	2012	2013	2014	
Cash holdings	464	508	340	69	65	59	
On person	73	64	63	29	29	24	
On property	401	461	286	10	9	7	
Excluding large-value holdings*	249	229	207	68	60	55	
On person	71	62	58	28	26	24	
On property	184	174	154	9	5	4	
Prepaid card holdings	181	na	na	0	na	na	
Prepaid card holdings, adopters only	346	na	na	99	na	na	
Virtual currency holdings†							
Number of coins	na	na	0.7	na	na	0.0	
Bitcoin	na	na	0.1	na	na	0.0	
Other virtual currencies	na	na	0.6	na	na	0.0	
Dollar value of coins	na	na	2.3	na	na	0.0	
Bitcoin	na	na	1.5	na	na	0.0	
Other virtual currencies	na	na	0.8	na	na	0.0	

<sup>\*</sup> Large-value holdings are values greater than the 98th percentile of all observations. Estimates are for the sub-sample of respondents with total cash holdings of less than or equal to holdings of the 98th percentile. Large-value holdings cut-offs were approximately \$3,600 in 2012, \$4,120 in 2013, and \$2,675 in 2014.

<sup>†</sup> There are too few observations to report "adopters only" numbers for virtual currencies.

Table 15

Cash Holdings, by Adoption of Deposit Accounts and Payment Instruments

Dollars per consumer\*†

Adoptors		Mean			Median	
Adopters —	2012	2013	2014	2012	2013	2014
Deposit account	243	241	216	69	65	64
On person	65	63	60	29	29	25
On property	183	185	162	10	9	9
ATM or debit card	217	226	200	63	59	58
On person	61	60	55	25	25	24
On property	160	173	150	9	5	5
Credit card	285	276	248	99	87	90
On person	79	68	65	39	34	29
On property	211	217	190	19	18	19
Prepaid card	257	237	233	78	63	75
On person	70	61	68	28	26	29
On property	193	182	170	13	9	8
Money order	231	200	147	63	49	44
On person	93	53	49	27	20	22
On property	139	153	100	5	2	1
Nonadopters —		Mean			Median	
Nonadopters	2012	2013	2014	2012	2013	2014
Deposit account	343	119	118	35	29	9
On person	145	51	41	16	18	9
On property	206	69	79	0	0	0
ATM or debit card	428	251	252	100	96	45
On person	123	70	73	39	38	23
On property	317	185	182	2	3	0
Credit card	157	121	103	30	29	20
On person	49	48	41	19	19	15
On property	113	76	64	0	0	0
Prepaid card	242	222	179	60	59	44
On person	72	63	47	26	26	20
On property	175	167	137	4	0	0
Money order	256	238	220	69	65	59
On person	65	64	60	28	29	24
On property	198	181	166	9	9	5

<sup>\* &</sup>quot;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.

<sup>†</sup> Excluding large-value holdings. See Table 14 for definition of large-value holdings.

Table 16

Cash Withdrawals, Total and at Most Frequented Location

Dollars per consumer per location, except as noted\*

Total, per month		Mean			Median	
Total, per month	2012	2013	2014	2012	2013	2014
Cash withdrawals†	655	685	548	280	234	200
Amount per withdrawal	131	124	119	74	64	60
Withdrawals (number per month)	6.4	6.5	5.6	4.0	4.0	3.0
Most frequented location	470	558	451	200	187	174
Amount per withdrawal	138	130	125	78	59	59
Withdrawals (number per month)	4.1	4.8	4.0	2.0	2.0	1.9
All other locations	189	131	100	18	8	9
Amount per withdrawal	58	41	42	17	15	18
Withdrawals (number per month)	2.3	1.7	1.6	0.4	0.3	0.3
		Mean			Median	
At Most Frequented Location, per month	2012	2013	2014	2012	2013	2014
ATM	445	399	413	200	199	175
Amount per withdrawal	113	103	102	60	57	57
Withdrawals (number per month)	4.3	4.2	4.4	2.7	2.1	2.0
Bank teller	535	721	558	290	277	200
Amount per withdrawal	222	213	211	99	99	94
Withdrawals (number per month)	2.9	4.4	3.0	2.0	2.0	1.8
Check cashing store	$\mathbf{s}$	s	s	s	S	s
Amount per withdrawal	S	S	S	s	S	S
Withdrawals (number per month)	S	S	S	S	S	S
Retail or grocery store	122	162	124	80	74	80
Amount per withdrawal	34	35	35	20	21	19
Withdrawals (number per month)	3.9	4.2	3.4	2.3	2.0	1.8
Employer	1101	1503	S	481	435	s
Amount per withdrawal	202	213	S	119	90	S
Withdrawals (number per month)	6.3	5.9	S	4.1	4.1	S
Family or friend	319	291	202	50	65	35
Amount per withdrawal	61	85	65	39	22	24
Withdrawals (number per month)	4.6	5.1	2.6	1.0	1.8	1.0
Other	985	1686	s	503	213	s
Amount per withdrawal	155	199	S	83	80	S
Withdrawals (number per month)	9.0	11.0	S	4.1	2.0	S
* The amount for each location is the dollar amount of withdrawals at t	hat lagation	n only by or		ha namad tl	at leastion	aa thain

<sup>\*</sup> 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 by multiplying the amount per withdrawal times the number of withdrawals, calculated for each consumer.

Notes: 1, 4, 5, 14.

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

Table 17
Cash Withdrawal Preferences, by Location and Method
Percentage of consumers

Share of consumers making a cash withdrawal	Mean				
Share of consumers making a cash withdrawar	2012	2013	2014		
Monthly	90.2	88.1	86.5		
Annually	99.0	98.3	97.7		
Most frequented legation		Mean			
Most frequented location —	2012	2013	2014		
ATM	49.6	49.3	52.7		
Bank teller	24.0	22.8	21.2		
Check cashing store	1.8	2.4	1.4		
Retail or grocery store	12.6	12.8	13.3		
Employer	3.4	3.7	2.6		
Family or friend	4.8	6.0	6.0		
Other	3.9	3.0	2.8		
Most frequent method by location		Mean			
Most frequent method, by location —	2012	2013	2014		
ATM					
Debit card	72.3	75.4	na		
ATM card	21.3	20.1	na		
Prepaid card	4.2	1.7	na		
Credit card cash advance	0.2	1.2	na		
Other type of card	1.9	1.6	na		
Retail store					
Debit card	89.0	86.4	na		
Write a check	2.1	2.4	na		
Prepaid card	1.0	3.6	na		
Other method	7.9	7.6	na		

Table 18

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

Dollars per consumer per location, except as noted\*

		Mean			Median			
Adopters, per month	2012	2013	2014	2012	2013	2014		
Deposit account	563	602	538	260	220	200		
Amount per withdrawal	122	116	109	68	60	60		
Withdrawals (number per month)	5.8	6.1	5.7	4.0	3.8	3.0		
ATM or debit card	548	598	513	240	217	200		
Amount per withdrawal	112	107	100	60	60	59		
Withdrawals (number per month)	5.9	6.3	5.8	4.0	4.0	3.0		
Credit card	572	498	511	242	200	200		
Amount per withdrawal	119	117	113	73	66	60		
Withdrawals (number per month)	5.8	5.1	5.1	3.5	3.0	3.0		
Prepaid card	649	711	606	300	250	240		
Amount per withdrawal	127	128	127	75	73	60		
Withdrawals (number per month)	6.7	6.7	5.8	4.0	4.0	3.0		
Money order	1046	1241	783	433	391	353		
Amount per withdrawal	132	140	133	78	73	62		
Withdrawals (number per month)	10.7	11.7	8.2	4.6	4.3	4.3		
		Mean		Median				
Nonadopters, per month	2012	2013	2014	2012	2013	2014		
Deposit account	1538	1611	652	621	566	295		
Amount per withdrawal	234	225	234	114	115	115		
Withdrawals (number per month)	11.4	10.1	4.8	3.5	3.5	1.8		
ATM or debit card	1089	1133	729	502	435	300		
Amount per withdrawal	224	216	219	129	100	100		
Withdrawals (number per month)	7.8	7.2	4.7	3.0	2.9	1.9		
Credit card	871	1142	645	400	340	216		
Amount per withdrawal	166	143	136	77	62	49		
Withdrawals (number per month)	7.9	10.0	7.1	4.0	4.3	3.9		
Prepaid card	652	659	486	241	212	197		
Amount per withdrawal	136	120	111	72	60	59		
****	6.0	6.3	5.4	3.3	3.7	3.0		
Withdrawals (number per month)								
Withdrawals (number per month)  Money order	541	543	499	240	207	200		
, ,	<b>541</b> 131	<b>543</b> 121	<b>499</b> 116	<b>240</b> 73	<b>207</b> 60	<b>200</b> 60		

<sup>\*</sup> Amount withdrawn per month is obtained by multiplying the amount per withdrawal times the number of withdrawals, calculated for each consumer.

Notes: 1-5, 7.

**Table 19 Share of Consumers or Adopters Using Accounts and Technologies**Percentage of consumers or adopters

Percentage of consumers	2012	2013	2014
Nonbank payment accounts	46.7	40.6	na
Online payment service provider	38.5	40.6	na
Prepaid card reloading	11.8	na	na
Dollar amount per reloading, reloaders only	215.9	na	na
Number of reloads per month, reloaders only	1.4	na	na
Deposit account access technologies	89.2	87.7	na
Visiting a bank branch*	73.7	75.0	na
ATM	73.5	65.2	na
Telephone banking	22.3	26.5	na
Online banking	70.3	70.1	na
Using a computer or laptop	68.3	68.0	na
Using a mobile phone	21.2	29.1	na
Using other internet-connected device	24.3	na	na
Online banking, using a mobile banking app	na	31.4	na
Mobile banking	34.5	47.0	na
Underbanked financial services	na	na	na
Nonbank money order/cashier's check, check cashing, remittance, payday loan	na	na	na
Pawn shop, rent-to-own services, tax refund anticipation loan	na	na	na
Percentage of nonbank payment account adopters	2012	2013	2014
Nonbank payment accounts	72.1	74.4	na
Online payment service provider	72.1	74.4	na
Prepaid card reloading	na	na	na
Dollar amount per reloading, reloaders only	na	na	na
Number of reloads per month, reloaders only	na	na	na
Percentage of bank account adopters	2012	2013	2014
Deposit account access technologies	97.0	96.5	na
Bank branch visit*	79.6	82.1	na
ATM	80.1	71.4	na
Telephone banking	24.3	29.1	na
Online banking	76.4	77.0	na
Using a computer or laptop	74.3	74.7	na
Using a mobile phone	21.2	29.1	na
	26.4	na	na
Using other internet-connected device		34.4	na
	na	J 1. 1	
Using other internet-connected device	na 37.3	51.6	na
Using other internet-connected device Online banking, using a mobile banking app			na <b>22.3</b>
Using other internet-connected device Online banking, using a mobile banking app Mobile banking	37.3	51.6	

<sup>\*</sup> 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, 13.

 $<sup>\</sup>dagger$  "Underbanked" is defined as having a bank account, and doing one of the actions listed, in the past 12 months. These actions are based on the FDIC definition of underbanked.

Table 20
Viewing Account Balances, in a Given Year
Percentage of consumers, except where noted

	2012	2013	2014
Method of checking bank account balance	na	90.4	na
ATM	na	47.9	na
Bank website	na	71.4	na
Bank mobile app	na	32.9	na
Bank teller	na	36.5	na
Voice call	na	19.2	na
Paper bank statement	na	45.1	na
Other	na	1.8	na
Method of checking bank account balance, percentage of bank account adopters	na	98.8	na
ATM	na	52.6	na
Bank website	na	78.4	na
Bank mobile app	na	36.2	na
Bank teller	na	40.1	na
Voice call	na	21.1	na
Paper bank statement	na	49.5	na
Other	na	2.0	na
Mean number of times consumers check their account balance, per month			
Bank account	na	22.6	na
Credit card	na	5.3	na
Prepaid card	na	8.5	na
Median number of times consumers check their account balance, per month			
Bank account	na	8.3	na
Credit card	na	1.0	na
Prepaid card	na	1.0	na

Table 21

Mobile Banking and Mobile Payments

Percentage of consumers, except as noted

Banking	2012	2013	2014
Current adoption and use of mobile banking	35.8	48.5	na
Mobile banking app installed	22.3	34.8	na
Check balance or recent transactions with mobile phone	30.0	39.7	na
Bill pay with mobile phone	16.3	28.4	na
Receive a text message alert from your bank	17.0	23.5	na
Transfer money between two accounts with mobile phone	18.2	27.6	na
Take a photo of a check to deposit it	na	15.1	na
Send a text message to your bank	na	4.8	na
Historical adoption of mobile banking	46.6	48.7	na
Mobile banking app installed	26.9	na	na
Check balance or recent transactions with mobile phone	40.3	42.4	na
Bill pay with mobile phone	25.2	31.9	na
Receive a text message alert from your bank	22.8	26.1	na
Transfer money between two accounts with mobile phone	23.2	29.3	na
Take a photo of a check to deposit it	na	15.8	na
Send a text message to your bank	na	5.7	na
Discard rate of mobile banking	7.1	0.3	na
Mobile banking app installed	2.3	na	na
Check balance or recent transactions with mobile phone	6.3	2.7	na
Bill pay with mobile phone	6.8	3.4	na
Receive a text message alert from your bank	3.5	2.6	na
Transfer money between two accounts with mobile phone	2.5	1.6	na
Take a photo of a check to deposit it	na	0.8	na
Send a text message to your bank	na	0.9	na
Payments	2012	2013	2014
Use of mobile payments on an annual basis	18.0	35.9	na
Text/SMS	2.8	12.2	na
Contactless	1.0	2.1	na
Scanned a barcode	2.0	6.7	na
Used your mobile phone's web browser	12.0	21.7	na
Used a mobile app	7.0	8.1	na
Swiped card in device attached to mobile phone	6.4	20.5	na
Made an in-app purchase	na	10.8	na
Use of mobile payments on an annual basis (percentage of users)	100.0	100.0	na
Text/SMS	15.8	34.0	na
Contactless	5.5	5.8	na
Scanned a barcode	11.5	18.7	na
Used your mobile phone's web browser	66.7	60.5	na
Used a mobile app	39.0	22.5	na
	260	57.1	200
Swiped card in device attached to mobile phone	36.0	37.1	na

Notes: 1-4, 11.

Table 22

Share of Consumers Using Payment Instruments, by Type of Asset or Liability
Percentage of consumers

	Monthly			Annual			
_	2012	2013	2014	2012	2013	2014	
Assets	94.8	93.0	94.0	94.8	93.1	94.2	
Money (M1)*	94.7	92.7	93.9	94.8	92.8	94.0	
Cash (currency)	84.7	82.1	81.8	87.3	84.8	85.1	
Traveler's check	na	na	na	1.4	1.5	0.8	
Demand deposit accounts, consumer	85.8	84.3	85.7	86.0	84.8	85.9	
Checks	65.5	60.9	60.6	72.0	67.7	67.1	
Certified	na	na	na	4.4	4.7	4.2	
Debit card	61.7	62.7	63.3	64.4	65.4	65.4	
Online banking bill payment	35.6	36.0	39.4	36.8	37.9	40.2	
Bank account number payment	53.7	54.0	57.7	60.1	59.9	62.1	
Other deposit accounts, bank	na	na	na	8.2	9.1	7.5	
Cashier's check	na	na	na	8.2	9.1	7.5	
Private currency	na	na	na	na	na	0.1	
Bitcoin	na	na	na	na	na	0.0	
Other kinds of virtual currency	na	na	na	na	na	0.1	
Unknown asset type†	17.0	14.9	16.2	24.3	21.1	21.4	
Money order	9.4	8.2	8.8	12.7	11.1	11.2	
Prepaid card	10.3	8.5	9.0	15.8	12.7	12.1	
Liabilities	55.9	55.5	59.6	62.1	64.9	63.3	
Credit or charge card	55.9	55.5	59.6	59.7	58.8	63.3	
Credit	na	na	na	na	na	na	
Charge	na	na	na	na	na	na	
Text/SMS mobile payment	na	na	na	2.8	12.2	na	
Other means of payment	14.2	15.7	15.3	15.1	16.3	15.8	
Direct deduction from income	14.2	15.7	15.3	15.1	16.3	15.8	

<sup>\*</sup> For official definition of M1, see Federal Reserve Statistical Release H.6.

Notes: 1-4, 7.

<sup>†</sup> These types are "unknown" because it is not known whether the underlying funds are held in a deposit account or not.

Table 23a

Share of Consumers Using Payment Instruments and Other Means of Payment Percentage of consumers

	Monthly				Annual	
_	2012	2013	2014	2012	2013	2014
Paper instruments	91.7	89.1	88.8	92.4	90.5	90.6
Cash	84.7	82.1	81.8	87.3	84.8	85.1
Check	65.5	60.9	60.6	72.0	67.7	67.1
Certified check	na	na	na	4.4	4.7	4.2
Money order	9.4	8.2	8.8	12.7	11.1	11.2
Traveler's check	na	na	na	1.4	1.5	0.8
Cashier's check	na	na	na	8.2	9.1	7.5
Payment cards	85.4	85.0	86.1	86.4	85.7	86.5
Debit	61.7	62.7	63.3	64.4	65.4	65.4
Credit or charge	55.9	55.5	59.6	59.7	58.8	63.3
Prepaid	10.3	8.5	9.0	15.8	12.7	12.1
Electronic payments	66.1	64.7	69.4	69.2	67.9	71.2
Online banking bill payment	35.6	36.0	39.4	36.8	37.9	40.2
Bank account number payment	53.7	54.0	57.7	60.1	59.9	62.1
Unknown/unspecified instrument	na	na	na	18.0	35.9	na
Mobile payments	na	na	na	18.0	35.9	na
Text/SMS	na	na	na	2.8	12.2	na
Contactless	na	na	na	1.0	2.1	na
Scanned a barcode	na	na	na	2.0	6.7	na
Used your mobile phone's web browser	na	na	na	12.0	21.7	na
Used a mobile app	na	na	na	7.0	8.1	na
Swiped card in device attached to mobile phone	na	na	na	6.4	20.5	na
Made an in-app purchase	na	na	na	na	10.8	na
Other means of payment	14.2	15.7	15.3	15.1	16.3	15.8
Direct deduction from income	14.2	15.7	15.3	15.1	16.3	15.8

Table 23b

Share of Adopters Using Payment Instruments and Other Means of Payment Percentage of adopters\*

	Monthly			Annual			
_	2012	2013	2014	2012	2013	2014	
Paper instruments	91.9	89.3	89.3	92.5	90.5	90.8	
Cash	85.2	82.5	82.3	87.8	85.2	85.7	
Check	77.6	74.1	74.0	85.3	82.4	82.0	
Certified check	na	na	na	na	na	na	
Money order	43.6	40.4	50.4	59.3	54.5	64.3	
Traveler's check	na	na	na	na	na	na	
Cashier's check	na	na	na	na	na	na	
Payment cards	88.6	90.2	90.9	89.6	91.0	91.3	
Debit	79.4	81.2	81.4	82.9	84.7	84.1	
Credit or charge	78.3	79.4	80.8	83.6	84.1	85.3	
Prepaid	19.8	16.9	17.3	30.4	25.2	23.4	
Electronic payments	87.4	87.1	90.6	91.5	91.5	92.9	
Online banking bill payment	65.4	67.8	70.2	67.6	71.3	71.7	
Bank account number payment†	89.5	90.2	93.0	100.0	100.0	100.0	
Unknown/unspecified instrument							
Mobile payments†	na	na	na	100.0	100.0	na	
Text/SMS	na	na	na	15.8	34.0	na	
Contactless	na	na	na	5.5	5.8	na	
Scanned a barcode	na	na	na	11.5	18.7	na	
Used your mobile phone's web browser	na	na	na	66.7	60.5	na	
Used a mobile app	na	na	na	39.0	22.5	na	
Swiped card in device attached to mobile phone	na	na	na	36.0	57.1	na	
Made an in-app purchase	na	na	na	na	30.0	na	
Other means of payment							
Direct deduction from income†	94.0	96.2	97.2	100.0	100.0	100.0	

<sup>\*</sup> Each payment instrument uses adopters of that particular payment instrument as the denominator. For example, in 2014, 82.3 percent of cash adopters use cash in a typical month.

Notes: 1-4, 7.

<sup>†</sup> Estimates are 100 percent whenever adoption is defined solely as annual incidence of use.

**Table 24 Share of Consumers Making a Transaction, by Type of Transaction Percentage of consumers** 

		Monthly		Annual			
	2012	2013	2014	2012	2013	2014	
Any transaction	94.9	93.4	94.1	94.9	93.5	94.3	
Online or electronic	84.4	81.5	85.2	86.4	83.0	86.5	
By mail, in person, or by phone	94.0	92.6	92.8	94.1	92.8	93.3	
Bill payments	92.0	89.8	92.2	92.4	90.6	92.4	
Automatic	53.8	53.2	55.8	54.3	53.7	56.1	
Direct deduction from income	14.2	15.7	15.3	15.1	16.3	15.8	
Online	66.0	65.4	68.7	69.4	68.9	71.0	
By mail, in person, or by phone	78.2	75.7	75.7	83.9	80.3	79.6	
Nonbill payments	93.1	91.8	91.2	93.2	92.0	91.3	
Online or electronic	54.7	51.5	54.3	66.9	63.3	65.4	
By mail, in person, or by phone	92.8	91.1	90.6	92.9	91.2	91.2	
Retail goods	88.2	87.7	86.5	89.3	88.3	87.3	
Services	84.8	83.8	82.8	87.1	86.1	85.3	
Person to person	53.9	48.6	46.6	67.3	59.9	59.2	
Online or electronic	17.1	15.9	16.1	24.9	23.1	23.4	
By mail, in person, or by phone	48.9	43.3	41.7	63.4	55.2	55.7	

Table 25
Share of Consumers Using Payment Instrument, by Type of Transaction
Percentage of consumers

						Nonbill <sub>l</sub>	payments	3		
Monthly	Bill payments				Online		Not online*			
-	2012	2013	2014	2012	2013	2014	2012	2013	2014	
Paper instruments	72.0	69.0	68.4	21.0	17.6	19.2	86.7	85.0	82.7	
Cash	31.3	30.6	30.1	na	na	na	83.3	80.5	79.4	
Check	55.5	52.1	50.5	17.8	15.6	17.5	40.5	36.9	35.6	
Money order	7.4	7.0	7.5	4.0	2.9	2.5	3.4	3.5	2.7	
Traveler's check	na	na	na	na	na	na	na	na	na	
Payment cards	68.4	67.2	70.9	41.7	41.1	41.8	81.1	79.9	81.4	
Debit	44.5	44.4	47.2	22.6	22.7	23.0	57.2	56.7	57.8	
Credit or charge	38.9	40.0	43.4	23.5	24.6	24.5	50.6	49.1	51.4	
Prepaid	4.4	3.4	3.5	4.0	3.6	3.0	8.4	6.7	7.3	
Electronic payments	63.9	62.0	67.1	16.1	17.6	17.5	12.5	11.2	11.2	
Online banking bill payment	34.5	34.6	38.8	na	na	na	7.1	5.2	6.6	
Bank account number payment	49.5	48.9	53.4	16.1	17.6	17.5	7.8	7.3	6.9	
Other means of payment	14.2	15.7	15.3	na	na	na	na	na	na	
Direct deduction from income	14.2	15.7	15.3	na	na	na	na	na	na	
				Nonbill payments						
Annual	Bill payments				Online		Not online			
•	2012	2013	2014	2012	2013	2014	2012	2013	2014	
Paper instruments	80.2	75.1	73.9	27.8	22.5	24.3	88.4	86.6	85.7	
Cash	36.1	35.7	33.8	na	na	na	85.9	83.3	82.9	
Check	65.5	59.8	57.8	24.4	20.2	22.1	52.8	47.6	46.6	
Money order	10.0	9.2	9.0	5.8	3.8	3.5	5.4	5.4	4.3	
Traveler's check	na	na	na	na	na	na	na	na	na	
Payment cards	71.5	70.7	73.5	56.0	53.7	54.2	82.2	81.1	82.5	
Debit	47.5	47.8	49.5	31.4	31.2	31.3	60.1	59.3	60.6	
Credit or charge	43.6	44.5	48.5	36.2	35.9	35.5	54.9	53.3	56.5	
Prepaid	6.7	4.7	5.5	6.9	5.5	5.0	13.4	9.9	10.4	
Electronic payments	66.6	64.6	68.9	24.9	24.8	24.3	18.0	16.5	16.2	
Online banking bill payment	35.7	36.3	39.5	na	na	na	9.5	7.6	8.4	
Bank account number payment	54.4	53.7	57.2	24.9	24.8	24.3	12.9	11.5	11.2	
Other means of payment	15.1	16.3	15.8	na	na	na	na	na	na	

<sup>\*</sup> Not online refers to retail goods payments, payments for services, and person-to-person payments.

Table 26
Share of Consumers Using Payment Instrument, by Type of Bill Payment
Percentage of consumers

Manall	A	Automati	с		Online		By mail or in person		
Monthly -	2012	2013	2014	2012	2013	2014	2012	2013	2014
Any instrument	53.8	53.2	55.8	66.0	65.4	68.7	78.2	75.7	75.7
Paper instruments	na	na	na	na	na	na	72.0	69.0	68.4
Cash	na	na	na	na	na	na	31.3	30.6	30.1
Check	na	na	na	na	na	na	55.5	52.1	50.5
Money order	na	na	na	na	na	na	7.4	7.0	7.5
Traveler's check	na	na	na	na	na	na	na	na	na
Payment cards	36.7	38.0	38.8	45.2	45.3	47.6	41.8	40.2	42.3
Debit	20.1	22.5	23.8	30.5	31.1	31.8	25.7	25.3	27.3
Credit or charge	23.8	24.9	26.4	23.3	23.7	26.4	22.0	21.4	22.5
Prepaid	na	na	na	na	na	na	4.4	3.4	3.5
Electronic payments	44.8	43.1	47.9	50.3	49.8	53.5	na	na	na
Online banking bill payment	20.6	21.7	24.9	28.4	28.3	31.7	na	na	na
Bank account number payment	34.5	34.1	37.9	33.5	35.0	36.9	na	na	na
Other means of payment	14.2	15.7	15.3	na	na	na	na	na	na
Direct deduction from income	14.2	15.7	15.3	na	na	na	na	na	na
	Automatic								
Annual	A	Automati	c		Online		By ma	ail or in p	person
Annual _	2012	Automati 2013	c 2014	2012	Online 2013	2014	By ma 2012	2013	person 2014
AnnualAny instrument				2012 69.4		2014 71.0			
	2012	2013	2014		2013		2012	2013	2014
Any instrument	2012 54.3	2013 53.7	2014 56.1	69.4	2013 68.9	71.0	2012	2013	2014 79.6
Any instrument	2012 54.3 na	2013 53.7 na	2014 56.1 na	69.4 na	2013 68.9 na	71.0 na	2012 83.9 80.2	2013 80.3 75.1	2014 79.6 73.9
Any instrument  Paper instruments  Cash	2012 54.3 na	2013 53.7 na	2014 56.1 na	69.4 na	2013 68.9 na	71.0 na na	2012 83.9 80.2 36.1	2013 80.3 75.1 35.7	2014 79.6 73.9 33.8
Any instrument	2012 54.3 na na na	2013 53.7 na na na	2014 56.1 na na na	69.4 na na	2013 68.9 na na na	71.0 na na na	2012 83.9 80.2 36.1 65.5	2013 80.3 75.1 35.7 59.8	<b>2014 79.6 73.9</b> 33.8 57.8
Any instrument	2012 54.3 na na na na	2013 53.7 na na na na	2014 56.1 na na na na	69.4 na na na na	2013 68.9 na na na na	71.0 na na na na	2012 83.9 80.2 36.1 65.5 10.0	2013 80.3 75.1 35.7 59.8 9.2	<b>79.6 73.9</b> 33.8 57.8 9.0
Any instrument	2012 54.3 na na na na na	2013 53.7 na na na na na	2014 56.1 na na na na na	69.4 na na na na na	2013 68.9 na na na na na	71.0  na  na  na  na  na	2012 83.9 80.2 36.1 65.5 10.0 na	2013 80.3 75.1 35.7 59.8 9.2 na	<b>2014 79.6 73.9</b> 33.8 57.8 9.0 na
Any instrument	2012 54.3 na na na na a 38.2	2013 53.7 na na na na na 39.2	2014 56.1 na na na na na 40.7	69.4 na na na na na	2013 68.9 na na na na na 49.6	71.0 na na na na na 50.5	2012 83.9 80.2 36.1 65.5 10.0 na 46.4	2013 80.3 75.1 35.7 59.8 9.2 na 44.5	<b>2014 79.6 73.9</b> 33.8 57.8 9.0 na <b>47.0</b>
Any instrument	2012 54.3 na na na na a 38.2 21.6	2013 53.7 na na na na na 39.2 23.9	2014 56.1 na na na na na 40.7 25.0	69.4 na na na na na 49.4 33.2	2013 68.9 na na na na na 49.6 33.9	71.0  na  na  na  na  na  50.5  34.1	2012 83.9 80.2 36.1 65.5 10.0 na 46.4 28.8	2013 80.3 75.1 35.7 59.8 9.2 na 44.5 28.7	<b>2014 79.6 73.9</b> 33.8 57.8 9.0 na <b>47.0</b> 30.6
Any instrument	2012 54.3 na na na na na 38.2 21.6 25.8	2013 53.7 na na na na na 39.2 23.9 27.0	2014  56.1  na  na  na  na  na  25.0  29.8	69.4 na na na na na 49.4 33.2 28.3	2013  68.9  na  na  na  na  na  33.9  28.1	71.0  na  na  na  na  na  so.5  34.1 30.3	2012 83.9 80.2 36.1 65.5 10.0 na 46.4 28.8 26.8	2013 80.3 75.1 35.7 59.8 9.2 na 44.5 28.7 25.7	<b>2014 79.6 73.9</b> 33.8 57.8 9.0 na <b>47.0</b> 30.6 27.5
Any instrument	2012 54.3 na na na na na 38.2 21.6 25.8 na	2013 53.7 na na na na na 39.2 23.9 27.0 na	2014  56.1  na  na  na  na  40.7  25.0  29.8  na	69.4  na  na  na  na  na  49.4  33.2  28.3  na	2013  68.9  na  na  na  na  49.6  33.9  28.1  na	71.0  na  na  na  na  na  50.5  34.1  30.3  na	2012 83.9 80.2 36.1 65.5 10.0 na 46.4 28.8 26.8 6.7	2013 80.3 75.1 35.7 59.8 9.2 na 44.5 28.7 25.7 4.7	<b>2014 79.6 73.9</b> 33.8 57.8 9.0 na <b>47.0</b> 30.6 27.5 5.5
Any instrument	2012 54.3 na na na na na 38.2 21.6 25.8 na 45.8	2013 53.7 na na na na na 39.2 23.9 27.0 na 43.9	2014  56.1  na  na  na  na  40.7  25.0  29.8  na  48.5	69.4 na na na na na 49.4 33.2 28.3 na 54.6	2013  68.9  na  na  na  na  49.6  33.9  28.1  na  53.8	71.0  na  na  na  na  na  50.5  34.1  30.3  na	2012 83.9 80.2 36.1 65.5 10.0 na 46.4 28.8 26.8 6.7 na	2013 80.3 75.1 35.7 59.8 9.2 na 44.5 28.7 25.7 4.7 na	<b>2014 79.6 73.9</b> 33.8 57.8 9.0 na <b>47.0</b> 30.6 27.5 5.5
Any instrument	2012 54.3 na na na na na 38.2 21.6 25.8 na 45.8 21.6	2013 53.7 na na na na na 39.2 23.9 27.0 na 43.9 22.5	2014  56.1  na  na  na  na  na  40.7  25.0  29.8  na  48.5  25.7	69.4  na  na  na  na  na  49.4  33.2  28.3  na  54.6  30.3	2013  68.9  na  na  na  na  49.6  33.9  28.1  na  53.8  30.5	71.0  na  na  na  na  na  so.5  34.1  30.3  na  56.6  33.1	2012 83.9 80.2 36.1 65.5 10.0 na 46.4 28.8 26.8 6.7 na	2013  80.3  75.1  35.7  59.8  9.2  na  44.5  28.7  25.7  4.7  na  na	<b>2014 79.6 73.9</b> 33.8 57.8 9.0 na <b>47.0</b> 30.6 27.5 5.5 <b>na</b> na

Table 27
Share of Consumers Using Payment Instrument, by Type of Nonbill, In-Person Transactions
Percentage of consumers

Monthly		Retail		Services and other			Person to person		
Monthly -	2012	2013	2014	2012	2013	2014	2012	2013	2014
Any instrument	88.2	87.7	86.5	84.8	83.8	82.8	53.9	48.6	46.6
Paper instruments	75.2	73.5	71.5	70.0	68.9	65.5	48.9	43.3	41.7
Cash	72.7	70.2	68.4	63.6	62.4	60.7	40.5	36.2	35.4
Check	23.9	20.8	19.5	25.6	22.0	21.0	17.3	15.7	14.3
Money order	2.4	1.7	1.6	2.1	1.8	0.8	1.8	1.4	1.9
Traveler's check	na	na	na	na	na	na	na	na	na
Payment cards	77.6	75.4	76.4	70.5	69.7	69.7	8.6	7.9	8.3
Debit	53.8	52.3	54.1	45.8	46.7	45.9	6.4	5.2	5.7
Credit or charge	46.0	44.6	45.7	40.4	40.1	41.8	3.8	4.2	3.9
Prepaid	6.9	4.9	5.6	5.4	4.0	4.2	na	na	na
Electronic payments	na	na	na	na	na	na	12.5	11.2	11.2
Online banking bill payment	na	na	na	na	na	na	7.1	5.2	6.6
Bank account number payment	na	na	na	na	na	na	7.8	7.3	6.9
Other means of payment	na	na	na	na	na	na	na	na	na
Direct deduction from income	na	na	na	na	na	na	na	na	na
	Retail			Serv	ices and	other	Person to person		
Annual -	2012	2013	2014	2012	2013	2014	2012	2013	2014
Any instrument	89.3	88.3	87.3	87.1	86.1	85.3	67.3	59.9	59.2
Paper instruments	79.6	77.0	75.5	76.0	73.7	71.6	63.4	55.2	55.7
Cash	76.8	73.6	73.3	70.7	67.7	66.3	55.4	48.5	49.9
Check	32.8	27.7	26.2	34.9	30.1	29.0	32.5	27.7	27.6
Money order	3.5	2.8	2.9	2.8	2.9	1.4	2.6	2.4	2.6
Traveler's check	na	na	na	na	na	na	na	na	na
Payment cards	79.6	76.8	78.2	75.1	73.4	73.7	13.6	11.9	12.9

49.7

7.9

na

na

na

na

na

51.1

9.1

na

na

na

na

na

50.7

na

na

na

na

na

47.8

8.3

na

na

na

na

na

46.4

6.5

na

na

na

na

na

47.9

6.4

na

na

na

na

na

6.8

na

18.0

9.5

12.9

na

na

6.7

na

16.5

7.6

11.5

na

na

Notes: 1-4.

Credit or charge.....

Electronic payments.....

Online banking bill payment.....

Bank account number payment.....

Other means of payment.....

Direct deduction from income.....

7.1

na

16.2

8.4

11.2

na

na

Table 28a

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

Number per consumer

	Mean			Growth rate (%)		
_	2012	2013	2014	12-13	13-14	
Total payments	68.9	67.9	66.1	-1.4	-2.7	
Assets	53.4	52.0	50.2	-2.7	-3.6	
Money (M1)*	<b>52.1</b>	51.0	49.2	-2.1	-3.6	
Cash (currency)	18.4	17.9	16.9	-2.9	-5.5	
Traveler's check	na	na	na	_	_	
Demand deposit accounts, consumer	33.6	33.1	32.3	-1.6	-2.5	
Checks	6.5	5.7	5.0	-12.8	-12.1	
Certified	na	na	na	_	_	
Debit card	20.6	21.2	20.4	2.6	-3.7	
Online banking bill payment	3.2	3.0	3.4	-7.1	13.8	
Bank account number payment	3.3	3.3	3.5	0.1	6.8	
Other deposit accounts	na	na	na	_	_	
Cashier's check	na	na	na	_	_	
Private currency	na	na	na			
Bitcoin	na	na	na	_	_	
Other kinds of virtual currency	na	na	na	_	_	
Unknown asset type†	1.4	1.0	1.0	-25.0	-2.8	
Money order	0.5	0.3	0.3	-34.3	-11.2	
Prepaid card	0.8	0.7	0.7	-19.3	1.5	
Prepaid card, per adopter‡	1.6	1.4	1.3	-16.5	-1.7	
Liabilities	14.9	15.3	15.4	2.7	0.4	
Credit or charge card	14.9	15.3	15.4	2.7	0.4	
Credit	na	na	na			
Charge	na	na	na		_	
Text/SMS mobile payment	na	na	na		_	
Other means of payment	0.5	0.6	0.5	4.8	-4.9	
Direct deduction from income	0.5	0.6	0.5	4.8	-4.9	

<sup>\*</sup> For official definition of M1, see Federal Reserve Statistical Release H.6.

<sup>†</sup> These types are "unknown" because it is not known whether the underlying funds are held in a deposit account or not.

<sup>‡</sup> Estimates are calculated using only adopters of a payment instrument, not all consumers.

Table 28b

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

Percentage per consumer

		Share (%)		Change		
_	2012	2013	2014	12-13	13-14	
Total payments	100.0	100.0	100.0	_	_	
Assets	77.6	76.6	75.9	-1.0	-0.7	
Money (M1)*	<b>75.6</b>	<b>75.1</b>	74.4	-0.5	-0.7	
Cash (currency)	26.8	26.3	25.6	-0.4	-0.8	
Traveler's check	na	na	na	_	_	
Demand deposit accounts, consumer	48.8	48.8	48.8	-0.1	0.1	
Checks	9.5	8.4	7.6	-1.1	-0.8	
Certified	na	na	na	_	_	
Debit card	29.9	31.1	30.8	1.2	-0.3	
Online banking bill payment	4.7	4.4	5.1	-0.3	0.7	
Bank account number payment	4.7	4.8	5.3	0.1	0.5	
Other deposit accounts	na	na	na	_	_	
Cashier's check	na	na	na	_	_	
Private currency	na	na	na	_	_	
Bitcoin	na	na	na		_	
Other kinds of virtual currency	na	na	na	_	_	
Unknown asset type†	2.0	1.5	1.5	-0.5	0.0	
Money order	0.8	0.5	0.5	-0.3	0.0	
Prepaid card	1.2	1.0	1.1	-0.2	0.0	
Prepaid card, per adopter‡	na	na	na	_	_	
Liabilities	21.6	22.5	23.3	0.9	0.7	
Credit or charge card	21.6	22.5	23.3	0.9	0.7	
Credit	na	na	na	_	_	
Charge	na	na	na	_	_	
Text/SMS mobile payment	na	na	na	_	_	
Other means of payment	0.8	0.8	0.8	0.0	0.0	
Direct deduction from income	0.8	0.8	0.8	0.0	0.0	

<sup>\*</sup> For official definition of M1, see Federal Reserve Statistical Release H.6.

<sup>†</sup> These types are "unknown" because it is not known whether the underlying funds are held in a deposit account or not.

<sup>‡</sup> Estimates are calculated using only adopters of a payment instrument, not all consumers.

Table 29
Consumer Payments in a Typical Month, by Payment Instrument

		Mean		Growth rate (%)		
Number per consumer -	2012	2013	2014	12-13	13-14	
Total payments	68.9	67.9	66.1	-1.4	-2.7	
Paper instruments	25.5	24.0	22.3	-6.2	-6.9	
Cash	18.4	17.9	16.9	-2.9	-5.5	
Check	6.5	5.7	5.0	-12.8	-12.1	
Money order	0.5	0.3	0.3	-34.3	-11.2	
Traveler's check	na	na	na	_	_	
Payment cards	36.4	37.1	36.4	2.1	-1.9	
Debit	20.6	21.2	20.4	2.6	-3.7	
Credit or charge	14.9	15.3	15.4	2.7	0.4	
Prepaid	0.8	0.7	0.7	-19.3	1.5	
Prepaid, per adopter*	1.6	1.4	1.3	-16.5	-1.7	
Electronic payments	6.5	6.2	6.9	-3.5	10.1	
Online banking bill payment	3.2	3.0	3.4	-7.1	13.8	
Bank account number payment	3.3	3.3	3.5	0.1	6.8	
Other means of payment	0.5	0.6	0.5	4.8	-4.9	
Direct deduction from income	0.5	0.6	0.5	4.8	-4.9	
Donoute of the control of the contro	Share (%)			Change		
Percentage share -	2012	2013	2014	12-13	13-14	
Total payments	100.0	100.0	100.0	_	_	
Paper instruments	37.0	35.3	33.6	-1.8	-1.6	
Cash	26.8	26.3	25.6	-0.4	-0.8	
Check	9.5	8.4	7.6	-1.1	-0.8	
Money order	0.8	0.5	0.5	-0.3	0.0	
Traveler's check	na	na	na	_	_	
Payment cards	52.8	54.7	55.1	1.9	0.4	
Debit	29.9	31.1	30.8	1.2	-0.3	
Credit or charge	21.6	22.5	23.3	0.9	0.7	
Prepaid	1.2	1.0	1.1	-0.2	0.0	
Prepaid, per adopter*	na	na	na	_	_	
Electronic payments	9.4	9.2	10.4	-0.2	1.2	
Online banking bill payment	4.7	4.4	5.1	-0.3	0.7	
Bank account number payment	4.7	4.8	5.3	0.1	0.5	
Other means of manner	0.8	0.8	0.8	0.0	0.0	
Other means of payment	0.0	0.0	0.0	0.0	0.0	

<sup>\*</sup> Estimates are calculated using only adopters of a payment instrument, not all consumers.

Table 30
Consumer Payments in a Typical Month, by Type of Payment Transaction

		Mean	Growth rate (%)		
Number per consumer —	2012	2013	2014	12-13	13-14
Fotal	68.9	67.9	66.1	-1.4	-2.7
Online or electronic	17.8	18.3	18.5	2.8	1.1
By mail, in person, or by phone	51.1	49.6	47.6	-2.9	-4.1
Bill payments	22.0	22.2	22.1	1.3	-0.8
Automatic	6.1	6.8	7.2	10.4	6.8
Direct deduction from income	0.5	0.6	0.5	4.8	-4.9
Other automatic	5.6	6.2	6.7	10.9	7.9
Online	6.7	6.9	6.7	3.8	-2.7
By mail, in person, or by phone	9.2	8.6	8.1	-6.6	-5.4
Nonbill payments	46.9	45.7	44.0	-2.7	-3.6
Retail and services	43.6	42.6	40.8	-2.2	-4.4
Online or electronic	4.1	3.9	3.6	-5.4	-7.3
By mail, in person, or by phone	39.5	38.8	37.2	-1.8	-4.1
Retail goods	24.1	23.9	22.9	-1.1	-4.1
Services	15.4	14.9	14.3	-3.0	-4.0
Person to person	3.3	3.0	3.2	-9.9	7.7
Online or electronic	0.9	0.7	0.9	-19.4	30.2
By mail, in person, or by phone	2.5	2.3	2.3	-6.5	0.7
	9	Share (%)	Change		
	,	311a1 C ( / 0 )		Cha	nge
Percentage share —	2012	2013	2014	12-13	13-14
	2012	2013			
		2013	100.0		13-14
Total	2012 100.0	2013		12-13	<b>13-14</b> ————————————————————————————————————
Online or electronic	2012 100.0 25.8 74.2	2013 100.0 26.9	<b>100.0</b> 28.0	<b>12-13</b> — 1.1	13-14 — 1.0 -1.0
Total Online or electronic	2012 100.0 25.8	2013 100.0 26.9 73.1	100.0 28.0 72.0	12-13 — 1.1 -1.1	13-14 ————————————————————————————————————
Online or electronic  By mail, in person, or by phone  Bill payments  Automatic	2012 100.0 25.8 74.2 31.9 8.9	2013 100.0 26.9 73.1 32.8	100.0 28.0 72.0 33.4	12-13 ————————————————————————————————————	13-14 ————————————————————————————————————
Online or electronic	2012 100.0 25.8 74.2 31.9 8.9 0.8	2013 100.0 26.9 73.1 32.8 9.9 0.8	100.0 28.0 72.0 33.4 10.9	12-13  1.1 -1.1 0.9 1.1	13-14 
Online or electronic	2012 100.0 25.8 74.2 31.9 8.9	2013 100.0 26.9 73.1 32.8 9.9	100.0 28.0 72.0 33.4 10.9 0.8	12-13	13-14 
Online or electronic  By mail, in person, or by phone.  Bill payments.  Automatic.  Direct deduction from income.  Other automatic.	2012 100.0 25.8 74.2 31.9 8.9 0.8 8.1	2013 100.0 26.9 73.1 32.8 9.9 0.8 9.1	100.0 28.0 72.0 33.4 10.9 0.8 10.1	12-13  1.1 -1.1 0.9 1.1 0.0 1.0	13-14 
Online or electronic  By mail, in person, or by phone  Bill payments  Automatic  Direct deduction from income Other automatic  Online  By mail, in person, or by phone	2012 100.0 25.8 74.2 31.9 8.9 0.8 8.1 9.7	2013 100.0 26.9 73.1 32.8 9.9 0.8 9.1 10.2	100.0 28.0 72.0 33.4 10.9 0.8 10.1 10.2	12-13	13-14 
Total	2012 100.0 25.8 74.2 31.9 8.9 0.8 8.1 9.7 13.3	2013 100.0 26.9 73.1 32.8 9.9 0.8 9.1 10.2 12.6	100.0 28.0 72.0 33.4 10.9 0.8 10.1 10.2 12.3	12-13	13-14
Online or electronic	2012 100.0 25.8 74.2 31.9 8.9 0.8 8.1 9.7 13.3 68.1	2013 100.0 26.9 73.1 32.8 9.9 0.8 9.1 10.2 12.6 67.2	100.0 28.0 72.0 33.4 10.9 0.8 10.1 10.2 12.3 66.6	12-13	13-14
Online or electronic  By mail, in person, or by phone  Bill payments  Automatic  Direct deduction from income.  Other automatic  Online  By mail, in person, or by phone.  Nonbill Payments  Retail and services.	2012 100.0 25.8 74.2 31.9 8.9 0.8 8.1 9.7 13.3 68.1 63.3	2013 100.0 26.9 73.1 32.8 9.9 0.8 9.1 10.2 12.6 67.2 62.8	100.0 28.0 72.0 33.4 10.9 0.8 10.1 10.2 12.3 66.6 61.7	12-13	13-14
Online or electronic  By mail, in person, or by phone.  Bill payments  Automatic  Direct deduction from income.  Other automatic  Online  By mail, in person, or by phone  Nonbill Payments  Retail and services  Online or electronic	2012 100.0 25.8 74.2 31.9 8.9 0.8 8.1 9.7 13.3 68.1 63.3 6.0	2013  100.0 26.9 73.1 32.8 9.9 0.8 9.1 10.2 12.6 67.2 62.8 5.7	100.0 28.0 72.0 33.4 10.9 0.8 10.1 10.2 12.3 66.6 61.7 5.4	12-13	13-14
Online or electronic  By mail, in person, or by phone  Bill payments  Automatic  Direct deduction from income  Other automatic  Online  By mail, in person, or by phone  Nonbill Payments  Retail and services  Online or electronic  By mail, in person, or by phone	2012 100.0 25.8 74.2 31.9 8.9 0.8 8.1 9.7 13.3 68.1 63.3 6.0 57.3	2013  100.0 26.9 73.1 32.8 9.9 0.8 9.1 10.2 12.6 67.2 62.8 5.7 57.1	100.0 28.0 72.0 33.4 10.9 0.8 10.1 10.2 12.3 66.6 61.7 5.4 56.3	12-13	13-14
Online or electronic  By mail, in person, or by phone  Bill payments  Automatic  Direct deduction from income  Other automatic  Online  By mail, in person, or by phone  Nonbill Payments  Retail and services  Online or electronic  By mail, in person, or by phone  Retail goods.	2012  100.0 25.8 74.2 31.9 8.9 0.8 8.1 9.7 13.3 68.1 63.3 6.0 57.3 35.0	2013  100.0 26.9 73.1 32.8 9.9 0.8 9.1 10.2 12.6 67.2 62.8 5.7 57.1 35.1	100.0 28.0 72.0 33.4 10.9 0.8 10.1 10.2 12.3 66.6 61.7 5.4 56.3 34.6	12-13	

By mail, in person, or by phone.....

3.6

3.4

3.5

-0.2

0.1

Table 31
Use of Payment Instruments in a Typical Month, by Type of Transaction

				Nonbill payments					
Number per consumer	Bil	ll paymei	nts		Online		N	ot online	<u>,</u> *
	2012	2013	2014	2012	2013	2014	2012	2013	2014
Paper instruments	5.4	5.0	4.6	0.9	0.7	0.7	19.2	18.2	16.9
Cash	2.2	2.3	2.2	na	na	na	16.2	15.6	14.7
Check	2.9	2.5	2.3	0.8	0.7	0.6	2.8	2.5	2.1
Money order	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1
Traveler's check	na	na	na	na	na	na	na	na	na
Payment cards	10.5	11.3	11.0	2.7	2.6	2.4	23.2	23.2	23.1
Debit	6.2	6.8	6.2	1.3	1.3	1.1	13.1	13.1	13.0
Credit or charge	4.2	4.4	4.6	1.3	1.2	1.1	9.4	9.7	9.7
Prepaid	0.1	0.1	0.2	0.1	0.1	0.1	0.6	0.4	0.4
Electronic payments	5.5	5.4	5.9	0.5	0.6	0.5	0.4	0.3	0.5
Online banking bill payment	3.0	2.8	3.1	na	na	na	0.3	0.1	0.3
Bank account number payment	2.6	2.5	2.8	0.5	0.6	0.5	0.2	0.2	0.2
Other methods of payment	0.5	0.6	0.5	na	na	na	na	na	na
Direct deduction from income	0.5	0.6	0.5	na	na	na	na	na	na
				Nonbill payments					
Percentage share	Bill payments			Online			Not online		
	2012	2013	2014	2012	2013	2014	2012	2013	2014
Paper instruments									
	<b>7.8</b>	7.4	7.0	1.3	1.0	1.1	27.9	26.8	25.6
Cash	<b>7.8</b> 3.3	<b>7.4</b> 3.4	<b>7.0</b> 3.3	<b>1.3</b> na	<b>1.0</b> na	<b>1.1</b> na	<b>27.9</b> 23.5	<b>26.8</b> 22.9	<b>25.6</b> 22.2
-									
Cash	3.3	3.4	3.3	na	na	na	23.5	22.9	22.2
CashCheck	3.3 4.2	3.4 3.7	3.3 3.4	na 1.2	na 1.0	na 1.0	23.5 4.1	22.9 3.7	22.2 3.2
Cash	3.3 4.2 0.3	3.4 3.7 0.2	3.3 3.4 0.2	na 1.2 0.1	na 1.0 0.1	na 1.0 0.1	23.5 4.1 0.3	22.9 3.7 0.2	22.2 3.2 0.1
Cash	3.3 4.2 0.3 na	3.4 3.7 0.2 na	3.3 3.4 0.2 na	na 1.2 0.1 na	na 1.0 0.1 na	na 1.0 0.1 na	23.5 4.1 0.3 na	22.9 3.7 0.2 na	22.2 3.2 0.1 na
Cash	3.3 4.2 0.3 na 15.3	3.4 3.7 0.2 na <b>16.6</b>	3.3 3.4 0.2 na 16.7	na 1.2 0.1 na <b>3.9</b>	na 1.0 0.1 na <b>3.8</b>	na 1.0 0.1 na <b>3.6</b>	23.5 4.1 0.3 na 33.6	22.9 3.7 0.2 na 34.2	22.2 3.2 0.1 na 34.9
Cash	3.3 4.2 0.3 na <b>15.3</b> 9.0	3.4 3.7 0.2 na <b>16.6</b> 10.0	3.3 3.4 0.2 na <b>16.7</b> 9.4	na 1.2 0.1 na 3.9 1.9	na 1.0 0.1 na <b>3.8</b> 1.9	na 1.0 0.1 na 3.6 1.7	23.5 4.1 0.3 na <b>33.6</b> 19.1	22.9 3.7 0.2 na 34.2 19.3	22.2 3.2 0.1 na <b>34.9</b> 19.7
Cash	3.3 4.2 0.3 na <b>15.3</b> 9.0 6.1	3.4 3.7 0.2 na <b>16.6</b> 10.0 6.5	3.3 3.4 0.2 na <b>16.7</b> 9.4 6.9	na 1.2 0.1 na 3.9 1.9	na 1.0 0.1 na <b>3.8</b> 1.9	na 1.0 0.1 na 3.6 1.7	23.5 4.1 0.3 na 33.6 19.1 13.7	22.9 3.7 0.2 na 34.2 19.3 14.3	22.2 3.2 0.1 na <b>34.9</b> 19.7 14.6
Cash	3.3 4.2 0.3 na <b>15.3</b> 9.0 6.1 0.2	3.4 3.7 0.2 na <b>16.6</b> 10.0 6.5 0.2	3.3 3.4 0.2 na <b>16.7</b> 9.4 6.9 0.3	na 1.2 0.1 na 3.9 1.9 0.2	na 1.0 0.1 na 3.8 1.9 1.8 0.2	na 1.0 0.1 na <b>3.6</b> 1.7 1.7	23.5 4.1 0.3 na <b>33.6</b> 19.1 13.7 0.9	22.9 3.7 0.2 na 34.2 19.3 14.3 0.6	22.2 3.2 0.1 na <b>34.9</b> 19.7 14.6 0.6
Cash	3.3 4.2 0.3 na 15.3 9.0 6.1 0.2 8.0	3.4 3.7 0.2 na <b>16.6</b> 10.0 6.5 0.2 <b>7.9</b>	3.3 3.4 0.2 na <b>16.7</b> 9.4 6.9 0.3 <b>8.9</b>	na 1.2 0.1 na 3.9 1.9 1.9 0.2	na 1.0 0.1 na 3.8 1.9 1.8 0.2	na 1.0 0.1 na <b>3.6</b> 1.7 1.7 0.2	23.5 4.1 0.3 na 33.6 19.1 13.7 0.9 0.6	22.9 3.7 0.2 na 34.2 19.3 14.3 0.6 0.5	22.2 3.2 0.1 na <b>34.9</b> 19.7 14.6 0.6 <b>0.7</b>
Cash	3.3 4.2 0.3 na <b>15.3</b> 9.0 6.1 0.2 <b>8.0</b> 4.3	3.4 3.7 0.2 na <b>16.6</b> 10.0 6.5 0.2 <b>7.9</b> 4.2	3.3 3.4 0.2 na <b>16.7</b> 9.4 6.9 0.3 <b>8.9</b> 4.7	na 1.2 0.1 na 3.9 1.9 1.9 0.2 0.7 na	na 1.0 0.1 na 3.8 1.9 1.8 0.2 0.8 na	na 1.0 0.1 na 3.6 1.7 1.7 0.2 0.8 na	23.5 4.1 0.3 na 33.6 19.1 13.7 0.9 0.6 0.4	22.9 3.7 0.2 na 34.2 19.3 14.3 0.6 0.5 0.2	22.2 3.2 0.1 na <b>34.9</b> 19.7 14.6 0.6 <b>0.7</b>
Cash	3.3 4.2 0.3 na <b>15.3</b> 9.0 6.1 0.2 <b>8.0</b> 4.3 3.7	3.4 3.7 0.2 na <b>16.6</b> 10.0 6.5 0.2 <b>7.9</b> 4.2 3.7	3.3 3.4 0.2 na <b>16.7</b> 9.4 6.9 0.3 <b>8.9</b> 4.7 4.2	na 1.2 0.1 na 3.9 1.9 1.9 0.2 0.7 na 0.7	na 1.0 0.1 na 3.8 1.9 1.8 0.2 0.8	na 1.0 0.1 na <b>3.6</b> 1.7 1.7 0.2 <b>0.8</b> na 0.8	23.5 4.1 0.3 na 33.6 19.1 13.7 0.9 0.6 0.4 0.3	22.9 3.7 0.2 na 34.2 19.3 14.3 0.6 0.5 0.2 0.3	22.2 3.2 0.1 na 34.9 19.7 14.6 0.6 <b>0.7</b> 0.4 0.3

<sup>\*</sup> Not online refers to retail goods payments, payments for services, and person-to-person payments.

Table 32
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		
	2012	2013	2014	2012	2013	2014	2012	2013	2014
Paper instruments	na	na	na	na	na	na	5.4	5.0	4.6
Cash	na	na	na	na	na	na	2.2	2.3	2.2
Check	na	na	na	na	na	na	2.9	2.5	2.3
Money order	na	na	na	na	na	na	0.2	0.2	0.2
Traveler's check	na	na	na	na	na	na	na	na	na
Payment cards	3.2	3.9	4.0	3.5	3.9	3.5	3.8	3.5	3.5
Debit	1.7	2.2	2.2	2.3	2.5	2.3	2.2	2.0	1.8
Credit or charge	1.5	1.6	1.9	1.2	1.4	1.2	1.5	1.4	1.5
Prepaid	na	na	na	na	na	na	0.1	0.1	0.2
Electronic payments	2.4	2.3	2.7	3.2	3.0	3.2	na	na	na
Online banking bill payment	1.1	1.2	1.3	1.8	1.7	1.8	na	na	na
Bank account number payment	1.3	1.2	1.4	1.3	1.4	1.4	na	na	na
Other means of payment	0.5	0.6	0.5	na	na	na	na	na	na
Direct deduction from income	0.5	0.6	0.5	na	na	na	na	na	na
		Automatic							
	A	utomat	ic		Online			il, in p	
Percentage share of all transactions					Online		or	by pho	ne
Percentage share of all transactions	A 2012	utomat	ic 2014	2012	Online 2013	2014		-	
Percentage share of all transactions  Paper instruments							or	by pho	ne
	2012	2013	2014	2012	2013	2014	or 2012	by pho 2013	2014
Paper instruments	2012 na	2013 na	2014 na	2012 na	2013 na	2014 na	or 2012 7.8	by pho 2013 7.4	2014 7.0
Paper instruments	2012 na na	2013 na na	2014 na na	2012 na na	2013 na na	2014 na na	7.8 3.3	2013 7.4 3.4	2014 7.0 3.3
Paper instruments Cash Check	na na na	2013  na  na  na	na na na	2012  na na na	2013 na na na	2014 na na na	7.8 3.3 4.2	<b>2013 7.4</b> 3.4 3.7	7.0 3.3 3.4
Paper instruments	2012  na na na na	2013  na na na na	2014  na na na na	na na na na	2013  na na na na	2014  na na na na	7.8 3.3 4.2 0.3	<b>2013 7.4</b> 3.4  3.7  0.2	7.0 3.3 3.4 0.2
Paper instruments	2012  na na na na na 4.7 2.5	na na na na na na	na na na na na	na na na na na na	na na na na na na	na na na na na na	7.8 3.3 4.2 0.3 na 5.5 3.2	<b>7.4</b> 3.4 3.7 0.2 na	7.0 3.3 3.4 0.2 na
Paper instruments Cash Check Money order Traveler's check Payment cards	2012  na na na na na 4.7	2013  na  na  na  na  na  5.7	2014  na na na na na 6.1	2012  na na na na na na 5.1	2013  na na na na na 5.7	2014  na na na na na 5.3	7.8 3.3 4.2 0.3 na 5.5	<b>2013 7.4</b> 3.4 3.7 0.2 na <b>5.2</b>	7.0 3.3 3.4 0.2 na 5.2
Paper instruments	2012  na na na na na 4.7 2.5	2013  na na na na na 5.7 3.3	2014  na na na na na 6.1 3.3	2012  na na na na na 5.1 3.4	2013  na na na na na 5.7 3.7	2014  na na na na na 5.3 3.5	7.8 3.3 4.2 0.3 na 5.5 3.2	by pho 2013 7.4 3.4 3.7 0.2 na 5.2 2.9	7.0 3.3 3.4 0.2 na 5.2 2.7
Paper instruments Cash Check Money order Traveler's check  Payment cards Debit Credit or charge	2012  na na na na na 4.7 2.5 2.2	2013  na na na na na 5.7 3.3 2.4	2014  na na na na na 6.1 3.3 2.8	2012  na na na na na na 13.4 1.7	2013  na na na na na 5.7 3.7 2.0 na 4.5	2014  na na na na na s.3 3.5	7.8 3.3 4.2 0.3 na 5.5 3.2 2.1	<b>by pho 2013 7.4</b> 3.4 3.7 0.2 na <b>5.2</b> 2.9 2.1	7.0 3.3 3.4 0.2 na 5.2 2.7 2.3
Paper instruments	2012  na na na na na 4.7 2.5 2.2 na	2013  na na na na na 5.7 3.3 2.4 na	2014  na na na na na 6.1 3.3 2.8 na	2012  na na na na na s.1 3.4 1.7 na	2013  na na na na na 5.7 3.7 2.0 na	2014  na na na na na 5.3 3.5 1.9 na	7.8 3.3 4.2 0.3 na 5.5 3.2 2.1 0.2	by pho 2013 7.4 3.4 3.7 0.2 na 5.2 2.9 2.1 0.2	7.0 3.3 3.4 0.2 na 5.2 2.7 2.3 0.3
Paper instruments	na na na na 4.7 2.5 2.2 na 3.4	2013  na na na na na s.7 3.3 2.4 na 3.4	2014  na na na na na 6.1 3.3 2.8 na 4.0	2012  na na na na na na 1.7 na 4.6	2013  na na na na na 5.7 3.7 2.0 na 4.5	2014  na na na na na s.3 3.5 1.9 na 4.9	7.8 3.3 4.2 0.3 na 5.5 3.2 2.1 0.2 na	by pho 2013 7.4 3.4 3.7 0.2 na 5.2 2.9 2.1 0.2 na	7.0 3.3 3.4 0.2 na 5.2 2.7 2.3 0.3 na
Paper instruments	na 1.6	2013  na na na na na 5.7 3.3 2.4 na 3.4 1.7	2014  na na na na na 6.1 3.3 2.8 na 4.0 2.0	2012  na na na na na na 1.7 na 4.6 2.7	2013  na na na na na 5.7 3.7 2.0 na 4.5 2.5	2014  na na na na na s.3 3.5 1.9 na 4.9 2.8	7.8 3.3 4.2 0.3 na 5.5 3.2 2.1 0.2 na na	by pho 2013 7.4 3.4 3.7 0.2 na 5.2 2.9 2.1 0.2 na na	7.0 3.3 3.4 0.2 na 5.2 2.7 2.3 0.3 na na

Table 33
Use of Payment Instruments in a Typical Month, by Type of Nonbill, In-Person Transactions

N		Retail		Servi	ces and	other	Person to person		
Number per consumer	2012	2013	2014	2012	2013	2014	2012	2013	2014
Paper instruments	10.0	9.7	8.7	6.8	6.2	5.9	2.5	2.3	2.3
Cash	8.7	8.5	7.7	5.6	5.2	5.1	1.9	1.8	1.9
Check	1.2	1.1	0.9	1.1	1.0	0.8	0.5	0.4	0.4
Money order	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Traveler's check	na	na	na	na	na	na	na	na	na
Payment cards	14.1	14.2	14.2	8.6	8.7	8.4	0.4	0.4	0.4
Debit	8.2	8.0	8.1	4.7	4.8	4.5	0.3	0.3	0.3
Credit or charge	5.6	5.9	5.8	3.7	3.7	3.7	0.1	0.1	0.1
Prepaid	0.4	0.2	0.2	0.3	0.2	0.2	na	na	na
Electronic payments	na	na	na	na	na	na	0.4	0.3	0.5
Online banking bill payment	na	na	na	na	na	na	0.3	0.1	0.3
Bank account number payment	na	na	na	na	na	na	0.2	0.2	0.2
Other means of payment	na	na	na	na	na	na	na	na	na
Direct deduction from income	na	na	na	na	na	na	na	na	na
D 4 1 6 1 4	Retail			Services and other			Person to person		
Parcantaga chara at all transactions									
Percentage share of all transactions	2012	2013	2014	2012	2013	2014	2012	2013	2014
Paper instruments	2012 14.5	2013 14.3	2014 13.1	2012 9.8	2013 9.1	2014 8.9	2012 3.6	2013 3.4	2014 3.5
	14.5								
Paper instruments	14.5	14.3	13.1	9.8	9.1	8.9	3.6	3.4	3.5
Paper instruments	<b>14.5</b> 12.6	<b>14.3</b> 12.6	<b>13.1</b> 11.7	<b>9.8</b> 8.1	<b>9.1</b> 7.6	<b>8.9</b> 7.7	<b>3.6</b> 2.8	<b>3.4</b> 2.7	3.5 2.8
Paper instruments  Cash  Check	<b>14.5</b> 12.6 1.8	<b>14.3</b> 12.6 1.7	<b>13.1</b> 11.7 1.4	<b>9.8</b> 8.1 1.6	<b>9.1</b> 7.6 1.4	<b>8.9</b> 7.7 1.2	3.6 2.8 0.7	3.4 2.7 0.6	3.5 2.8 0.6
Paper instruments	14.5 12.6 1.8 0.1 na	14.3 12.6 1.7 0.0	13.1 11.7 1.4 0.1	9.8 8.1 1.6 0.1	9.1 7.6 1.4 0.1	8.9 7.7 1.2 0.0	3.6 2.8 0.7 0.1	3.4 2.7 0.6 0.1	3.5 2.8 0.6 0.0
Paper instruments  Cash	14.5 12.6 1.8 0.1 na 20.5	14.3 12.6 1.7 0.0 na	13.1 11.7 1.4 0.1 na	9.8 8.1 1.6 0.1 na	9.1 7.6 1.4 0.1 na	8.9 7.7 1.2 0.0 na	3.6 2.8 0.7 0.1 na	3.4 2.7 0.6 0.1 na	3.5 2.8 0.6 0.0 na
Paper instruments.  Cash. Check. Money order. Traveler's check.  Payment cards.	14.5 12.6 1.8 0.1 na 20.5	14.3 12.6 1.7 0.0 na 20.9	13.1 11.7 1.4 0.1 na 21.5	9.8 8.1 1.6 0.1 na 12.5	9.1 7.6 1.4 0.1 na 12.8	8.9 7.7 1.2 0.0 na 12.8	3.6 2.8 0.7 0.1 na 0.6	3.4 2.7 0.6 0.1 na 0.6	3.5 2.8 0.6 0.0 na 0.7
Paper instruments	14.5 12.6 1.8 0.1 na 20.5 11.8	14.3 12.6 1.7 0.0 na 20.9 11.8	13.1 11.7 1.4 0.1 na 21.5 12.3	9.8 8.1 1.6 0.1 na 12.5 6.8	9.1 7.6 1.4 0.1 na 12.8 7.1	8.9 7.7 1.2 0.0 na 12.8 6.9	3.6 2.8 0.7 0.1 na 0.6 0.5	3.4 2.7 0.6 0.1 na 0.6 0.4	3.5 2.8 0.6 0.0 na 0.7 0.5
Paper instruments  Cash	14.5 12.6 1.8 0.1 na 20.5 11.8 8.2	14.3 12.6 1.7 0.0 na 20.9 11.8 8.7	13.1 11.7 1.4 0.1 na 21.5 12.3 8.8	9.8 8.1 1.6 0.1 na 12.5 6.8 5.3	9.1 7.6 1.4 0.1 na 12.8 7.1 5.4	8.9 7.7 1.2 0.0 na 12.8 6.9 5.6	3.6 2.8 0.7 0.1 na 0.6 0.5	3.4 2.7 0.6 0.1 na 0.6 0.4 0.2	3.5 2.8 0.6 0.0 na 0.7 0.5 0.2
Paper instruments.  Cash	14.5 12.6 1.8 0.1 na 20.5 11.8 8.2 0.5	14.3 12.6 1.7 0.0 na 20.9 11.8 8.7 0.4	13.1 11.7 1.4 0.1 na 21.5 12.3 8.8 0.3	9.8 8.1 1.6 0.1 na 12.5 6.8 5.3 0.4	9.1 7.6 1.4 0.1 na 12.8 7.1 5.4 0.3	8.9 7.7 1.2 0.0 na 12.8 6.9 5.6 0.3	3.6 2.8 0.7 0.1 na 0.6 0.5 0.2	3.4 2.7 0.6 0.1 na 0.6 0.4 0.2 na	3.5 2.8 0.6 0.0 na 0.7 0.5 0.2
Paper instruments	14.5 12.6 1.8 0.1 na 20.5 11.8 8.2 0.5 na	14.3 12.6 1.7 0.0 na 20.9 11.8 8.7 0.4 na	13.1 11.7 1.4 0.1 na 21.5 12.3 8.8 0.3 na	9.8 8.1 1.6 0.1 na 12.5 6.8 5.3 0.4 na	9.1 7.6 1.4 0.1 na 12.8 7.1 5.4 0.3 na	8.9 7.7 1.2 0.0 na 12.8 6.9 5.6 0.3 na	3.6 2.8 0.7 0.1 na 0.6 0.5 0.2 na	3.4 2.7 0.6 0.1 na 0.6 0.4 0.2 na	3.5 2.8 0.6 0.0 na 0.7 0.5 0.2 na
Paper instruments  Cash Check Money order Traveler's check  Payment cards Debit Credit or charge Prepaid  Electronic payments Online banking bill payment	14.5 12.6 1.8 0.1 na 20.5 11.8 8.2 0.5 <b>na</b>	14.3 12.6 1.7 0.0 na 20.9 11.8 8.7 0.4 na	13.1 11.7 1.4 0.1 na 21.5 12.3 8.8 0.3 na	9.8 8.1 1.6 0.1 na 12.5 6.8 5.3 0.4 na	9.1 7.6 1.4 0.1 na 12.8 7.1 5.4 0.3 na	8.9 7.7 1.2 0.0 na 12.8 6.9 5.6 0.3 na	3.6 2.8 0.7 0.1 na 0.6 0.5 0.2 na 0.6	3.4 2.7 0.6 0.1 na 0.6 0.4 0.2 na 0.5	3.5 2.8 0.6 0.0 na 0.7 0.5 0.2 na 0.7

Table 34

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

Mean number per consumer

Month	2012	2013	2014
All payments (9 instruments available)	3.8	3.7	3.8
Paper instruments	1.6	1.5	1.5
Payment cards	1.3	1.3	1.3
Electronic payments	0.9	0.9	1.0
Bill payments (8 instruments available)†	2.7	2.6	2.7
Paper instruments	0.9	0.9	0.9
Payment cards	0.9	0.9	0.9
Electronic payments	0.8	0.8	0.9
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)**	2.6	2.5	2.5
Paper instruments	1.3	1.2	1.2
Payment cards	1.2	1.1	1.2
Electronic payments	0.1	0.1	0.1
Year	2012	2013	2014
All payments (9 instruments available)	4.1	4.0	4.1
Paper instruments	1.7	1.7	1.6
Payment cards	1.4	1.4	1.4
Electronic payments	1.0	1.0	1.0
Bill payments (8 instruments available)†	3.0	2.9	3.0
Paper instruments.	1.1	1.0	1.0
Payment cards	1.0	1.0	1.0
Electronic payments	0.9	0.9	1.0
Online payments (6 instruments available);	1.3	1.2	1.2
Paper instruments	0.3	0.2	0.3
Payment cards	0.7	0.7	0.7
Electronic payments	0.2	0.2	0.2
In-person payments (8 instruments available)**	2.9	2.8	2.8
Paper instruments	1.4	1.4	1.3
Payment cards	1.3	1.2	1.3
Electronic payments	0.2	0.2	0.2
† Travalar's chacks are not presented to the respondent as an option for hill payments			

 $<sup>\</sup>dagger$  Traveler's checks are not presented to the respondent as an option for bill payments.

Notes: 1-4, 6.

<sup>‡</sup> Cash, traveler's check, and OBBP are not presented to the respondent as an option for online payments.

<sup>\*\*</sup> OBBP is not presented to the respondent as a payment instrument for in-person payments.

Table 35

Loss, Theft, or Fraudulent Use of Payment Instrument

Percentage of consumers or adopters and mean dollar value

Percentage of consumers	2012	2013	2014
Incidence in past 12 months	15.6	14.7	13.1
Cash	9.1	8.2	7.3
Checks	1.0	1.2	0.6
Credit card	4.1	5.2	5.0
Debit card	6.1	5.3	3.5
Incidence of identity theft	na	20.7	38.0
Myself and someone I know well	na	4.3	11.6
Someone I know well only	na	12.3	20.0
Myself only	na	4.2	6.5
Percentage of adopters	2012	2013	2014
Incidence in past 12 months	15.8	14.8	13.3
Cash	9.1	8.3	7.4
Checks	1.2	1.4	0.7
Credit card	5.7	7.4	6.9
Debit card	7.8	6.8	4.5
Mean dollar value*	2012	2013	2014
Amount lost or stolen			
Cash	411	314	218
Amount of fraudulent charges†			
Checks	S	S	S
Credit card	653	817	811
Debit card	202	89	276

<sup>\*</sup> 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.

Notes: 1-5, 14.

<sup>†</sup> 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.

**Table 36 Importance Rankings of Characteristics of Payment Instruments**Percentage of consumers

2012	Most important	2nd most	3rd most	4th most	5th most	6th most	Least important
Acceptance for payment	21.8	20.5	18.6	16.6	13.0	na	9.5
Acquisition and setup	8.5	9.7	9.0	13.2	20.1	na	39.5
Convenience	28.1	19.6	20.7	12.6	12.4	na	6.5
Cost	22.3	21.7	18.2	15.4	12.9	na	9.5
Payment records	14.5	19.5	17.5	19.4	18.0	na	11.1
Security	51.4	20.2	13.3	9.4	3.5	na	2.2
2013*							
Acceptance for payment	9.7	na	na	na	na	na	na
Acquisition and setup	1.4	na	na	na	na	na	na
Convenience	44.2	na	na	na	na	na	na
Cost	11.8	na	na	na	na	na	na
Payment records	5.1	na	na	na	na	na	na
Security	27.9	na	na	na	na	na	na
Characteristics of speed and security Speed							
At the time of payment	13.9	13.2	14.8	17.9	13.9	14.2	12.2
When payment is deducted from account or card	12.9	11.3	11.9	16.4	16.4	15.8	15.3
When recipient receives payment	10.6	11.4	11.5	15.4	14.0	14.3	22.8
When payment is reported in account or card	11.0	11.9	13.6	18.0	17.9	15.3	12.2
Security							
Preventing unwanted disclosure of PII	30.9	26.6	17.2	10.0	6.6	5.2	3.5
Preventing permanent financial loss	53.7	19.9	9.8	6.2	4.7	3.5	2.2
Confidentiality	21.3	17.6	24.4	12.2	9.6	7.1	7.8
2014†	Most	2nd	3rd	4th	5th	6th	Least
2014)	important	most	most	most	most	most	important
Acceptance for payment	na	na	na	na	na	na	na
Acquisition and setup	na	na	na	na	na	na	na
Convenience	na	na	na	na	na	na	na
Cost	na	na	na	na	na	na	na
Payment records	na	na	na	na	na	na	na
Security	na	na	na	na	na	na	na

<sup>\*</sup> In 2013, questionnaire item AS012 was changed from a question about ranking to a question asking the respondent to choose the most important characteristic.

 $<sup>\</sup>dagger$  This question was not asked in the 2014 SCPC.

Table 37a
Assessments of Payment Instruments: Acceptance for Payment
Percentage of consumers

	Rarely accepted	Occasionally accepted	Often accepted	Usually accepted	Almost always accepted
Cash					
2012	1.9	1.7	6.6	14.0	75.8
2013	2.2	2.2	7.9	12.6	75.1
2014	2.2	2.5	8.3	15.1	71.9
Check					
2012	3.5	16.1	27.4	35.0	17.9
2013	5.2	18.0	29.2	31.7	15.8
2014	3.9	16.8	29.9	32.9	16.5
Money order					
2012	10.7	19.4	26.6	23.2	20.0
2013	12.7	19.6	25.5	23.1	19.2
2014	9.8	22.2	26.0	23.1	19.0
Debit card					
2012	1.4	1.1	9.7	29.7	58.0
2013	1.6	2.2	11.1	27.5	57.7
2014	0.6	1.2	9.8	29.2	59.1
Credit card					
2012	1.2	0.8	6.5	26.1	65.3
2013	1.8	1.4	6.4	25.6	64.8
2014	1.4	0.8	6.8	28.5	62.5
Prepaid card					
2012	3.8	6.2	21.3	32.4	36.3
2013	2.9	7.1	24.0	30.0	36.0
2014	3.1	8.6	21.8	32.7	33.9
Bank account number payment					
2012	25.5	25.7	18.9	16.5	13.4
2013	23.7	24.9	22.5	16.7	12.1
2014	18.3	23.3	24.0	18.9	15.5
Online banking bill payment					
2012	6.7	11.2	24.7	29.8	27.6
2013	8.7	12.7	24.1	26.9	27.6
2014	5.9	11.0	25.8	30.1	27.2

Table 37b

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					
2012	1.6	3.1	16.7	17.9	60.6
2013	2.2	4.0	17.7	19.1	57.0
2014	1.6	3.7	17.4	18.1	59.2
Check					
2012	2.4	8.7	25.5	37.0	26.3
2013	3.2	9.0	25.9	38.0	24.0
2014	1.3	9.4	28.1	36.1	25.1
Money order					
2012	8.2	23.0	31.1	21.9	15.9
2013	9.2	23.1	30.1	22.6	15.0
2014	9.0	23.4	31.1	21.6	14.9
Debit card					
2012	1.1	5.0	20.7	38.4	34.8
2013	1.8	4.5	21.4	39.7	32.5
2014	1.0	5.0	20.8	40.6	32.6
Credit card					
2012	4.0	11.3	21.1	35.3	28.3
2013	5.4	9.0	20.8	35.9	29.0
2014	3.8	8.5	22.6	36.3	28.7
Prepaid card					
2012	4.5	13.8	32.3	27.9	21.4
2013	4.7	11.7	32.8	30.0	20.8
2014	3.9	12.4	35.4	27.3	20.9
Bank account number payment					
2012	3.8	14.2	31.8	31.9	18.3
2013	4.6	13.6	32.3	31.2	18.3
2014	2.8	13.6	32.4	32.2	18.9
Online banking bill payment					
2012	2.8	13.2	26.2	36.3	21.6
2013	4.1	14.1	26.4	33.6	21.8
2014	3.0	13.1	26.5	36.3	21.1

Table 37c Assessments of Payment Instruments: Convenience

	Very Inconvenient	Inconvenient	Neither inconvenient nor convenient	Convenient	Very Convenient
Cash					
2012	3.6	8.5	12.3	25.7	49.8
2013	4.2	8.7	13.6	24.2	49.3
2014	2.3	9.9	13.9	24.5	49.4
Check					
2012	8.3	20.6	26.1	31.0	14.1
2013	6.7	22.3	24.6	31.0	15.4
2014	7.6	24.4	21.9	28.8	17.3
Money order					
2012	26.7	32.2	21.5	13.4	6.2
2013	26.0	30.9	21.8	13.4	7.9
2014	25.9	30.8	20.2	12.5	10.7
Debit card					
2012	2.0	3.2	9.1	29.2	56.5
2013	3.1	3.0	9.8	29.9	54.2
2014	1.8	2.1	9.1	28.9	58.1
Credit card					
2012	2.6	2.3	8.7	29.2	57.3
2013	4.0	2.7	7.7	28.2	57.3
2014	2.0	2.1	8.3	28.4	59.2
Prepaid card					
2012	8.6	13.9	28.3	24.5	24.8
2013	8.8	15.2	27.7	25.0	23.4
2014	6.4	16.1	29.3	24.0	24.2
Bank account number payment					
2012	11.9	20.9	30.1	24.0	13.2
2013	11.4	18.4	29.0	24.4	16.8
2014	8.2	17.0	28.8	25.7	20.2
Online banking bill payment					
2012	4.0	6.0	18.8	29.8	41.4
2013	5.5	7.6	17.5	32.1	37.3
2014	3.3	6.8	17.9	30.3	41.6

Table 37d
Assessments of Payment Instruments: Cost

	Very high cost	High cost	Neither high nor low cost	Low cost	Very low cost
Cash					
2012	1.1	1.3	17.4	10.0	70.3
2013	1.4	1.7	19.7	9.5	67.6
2014	1.6	1.5	17.9	11.7	67.3
Check					
2012	1.7	8.3	23.0	38.2	28.8
2013	1.9	8.2	22.1	39.7	28.2
2014	1.5	7.6	24.1	38.4	28.4
Money order					
2012	6.2	23.1	30.4	28.7	11.5
2013	5.4	25.5	26.0	32.5	10.6
2014	5.3	23.9	28.1	32.0	10.7
Debit card					
2012	1.4	6.9	22.2	27.9	41.6
2013	1.8	5.8	22.0	29.0	41.4
2014	2.6	5.2	23.1	25.4	43.7
Credit card					
2012	18.3	28.4	18.5	17.8	17.1
2013	18.2	27.6	16.5	18.6	19.0
2014	14.3	27.7	19.0	17.3	21.7
Prepaid card					
2012	5.5	16.7	34.4	22.8	20.6
2013	5.3	17.4	33.2	26.1	18.0
2014	3.8	16.2	36.3	24.2	19.4
Bank account number payment					
2012	2.8	3.9	29.6	26.7	37.0
2013	2.2	5.0	31.0	25.1	36.7
2014	1.8	4.7	28.7	24.5	40.4
Online banking bill payment					
2012	1.9	3.5	23.0	24.4	47.2
2013	2.4	4.2	25.6	25.8	42.0
2014	2.1	3.7	23.8	23.8	46.6

Table 37e Assessments of Payment Instruments: Payment Records

	Very poor records	Poor records	Neither good nor poor	Good records	Very good records
Cash					
2012	37.8	24.9	17.9	10.8	8.7
2013	37.6	21.8	19.3	11.1	10.2
2014	39.4	22.2	16.9	9.9	11.6
Check					
2012	1.7	3.6	13.3	43.7	37.7
2013	2.0	4.1	13.0	44.2	36.7
2014	0.7	3.6	15.1	44.0	36.6
Money order					
2012	14.4	18.7	30.9	21.9	14.1
2013	13.3	18.9	31.9	22.5	13.4
2014	12.6	21.4	28.2	24.5	13.3
Debit card					
2012	1.9	4.0	14.3	36.0	43.8
2013	3.0	3.5	12.7	38.5	42.3
2014	1.7	3.5	11.3	37.3	46.2
Credit card					
2012	1.8	2.7	10.4	34.1	51.1
2013	2.1	2.2	9.0	37.0	49.6
2014	1.0	1.2	9.6	36.8	51.3
Prepaid card					
2012	17.9	23.0	34.6	14.1	10.4
2013	18.8	21.2	33.0	17.1	9.9
2014	20.2	22.5	30.8	16.6	9.9
Bank account number payment					
2012	3.5	5.1	19.2	34.2	38.1
2013	3.7	4.7	16.6	36.1	38.8
2014	2.6	2.8	17.1	35.6	41.9
Online banking bill payment					
2012	2.2	2.6	15.8	31.5	47.8
2013	3.0	2.8	15.5	33.1	45.6
2014	0.8	2.2	13.0	35.4	48.7

Table 37f
Assessments of Payment Instruments: Security (overall)

	Very risky	Risky	Neither risky nor secure	Secure	Very secure
Cash					
2012	34.0	15.3	14.3	11.6	24.8
2013	34.4	13.8	13.9	13.6	24.4
2014	28.0	16.3	14.2	14.0	27.5
Check					
2012	7.9	27.8	25.1	29.4	9.7
2013	9.9	24.7	24.9	31.4	9.0
2014	5.1	26.4	25.7	33.9	9.0
Money order					
2012	13.9	16.9	24.3	27.2	17.8
2013	13.7	16.3	25.5	28.3	16.2
2014	10.1	16.0	25.0	29.3	19.6
Debit card					
2012	8.8	23.5	18.5	37.0	12.3
2013	9.7	23.1	17.9	37.1	12.3
2014	9.6	28.6	17.1	33.6	11.1
Credit card					
2012	9.3	20.4	16.3	37.7	16.3
2013	10.9	20.9	16.0	36.0	16.2
2014	9.5	24.1	17.2	34.7	14.6
Prepaid card					
2012	18.6	21.5	27.2	20.3	12.4
2013	20.9	19.4	27.2	21.2	11.3
2014	17.0	22.8	24.2	22.2	13.8
Bank account number payment					
2012	21.1	25.8	18.5	24.2	10.4
2013	22.2	28.1	16.5	23.9	9.3
2014	15.8	30.5	18.3	26.1	9.3
Online banking bill payment					
2012	8.9	20.1	19.6	34.6	16.8
2013	12.4	20.9	18.8	32.1	15.8
2014	9.3	21.2	18.2	35.6	15.7

Table 37g
Assessments of Payment Instruments: Security of Personally Identifiable Information
Percentage of consumers

	Very risky	Risky	Neither risky nor secure	Secure	Very secure
Cash					
2012	na	na	na	na	na
2013	11.1	6.7	13.2	18.5	50.6
2014	na	na	na	na	na
Check					
2012	na	na	na	na	na
2013	10.6	36.8	28.3	20.0	4.3
2014	na	na	na	na	na
Money order					
2012	na	na	na	na	na
2013	7.0	14.9	28.6	29.9	19.6
2014	na	na	na	na	na
Debit card					
2012	na	na	na	na	na
2013	10.6	29.6	24.2	28.3	7.3
2014	na	na	na	na	na
Credit card					
2012	na	na	na	na	na
2013	12.1	30.8	23.7	26.1	7.2
2014	na	na	na	na	na
Prepaid card					
2012	na	na	na	na	na
2013	10.2	16.1	29.2	27.1	17.4
2014	na	na	na	na	na
Bank account number payment					
2012	na	na	na	na	na
2013	16.6	33.9	24.9	20.0	4.5
2014	na	na	na	na	na
Online banking bill payment					
2012	na	na	na	na	na
2013	12.6	29.6	24.8	25.2	7.8
2014	na	na	na	na	na

Table 37h
Assessments of Payment Instruments: Security of Financial Wealth

Percentage of consumers Neither risky Very risky Risky **Secure** Very secure nor secure Cash 2012..... na na na na na 13.7 2013..... 41.7 11.9 14.1 18.7 2014..... na na na na na Check 2012..... na na na na na 28.2 2013..... 22.0 3.9 11.9 34.0 2014..... na na na na Money order 2012..... na na na na na 2013..... 21.4 22.3 26.7 19.9 9.7 2014..... na na na na na **Debit card** 2012..... na na na na na 2013..... 12.8 29.2 22.9 27.3 7.9 2014..... na na na na na Credit card 2012..... na na na na na 2013..... 10.3 25.0 20.4 32.2 12.0 2014..... na na na na na Prepaid card 2012..... na na na na na 2013..... 24.3 25.0 25.6 15.5 9.7 2014..... na na na na na Bank account number payment 2012..... na na na na na 2013..... 14.6 31.7 23.8 23.5 6.4 2014..... na na na na na Online banking bill payment 2012..... na na na na na 2013..... 27.9 11.7 24.8 27.3 8.3 2014..... na na na na na

Table 37i
Assessments of Payment Instruments: Security of Payment Transaction Confidentiality
Percentage of consumers

1 creenings of consumers	Very risky	Risky	Neither risky nor secure	Secure	Very secure
Cash					
2012	na	na	na	na	na
2013	14.6	6.9	17.6	21.5	39.4
2014	na	na	na	na	na
Check					
2012	na	na	na	na	na
2013	10.2	29.8	27.5	25.4	7.1
2014	na	na	na	na	na
Money order					
2012	na	na	na	na	na
2013	9.1	16.8	32.3	25.4	16.4
2014	na	na	na	na	na
Debit card					
2012	na	na	na	na	na
2013	11.9	29.9	24.7	26.8	6.7
2014	na	na	na	na	na
Credit card					
2012	na	na	na	na	na
2013	13.2	31.8	22.2	25.4	7.5
2014	na	na	na	na	na
Prepaid card					
2012	na	na	na	na	na
2013	10.5	20.3	34.6	22.8	11.8
2014	na	na	na	na	na
Bank account number payment					
2012	na	na	na	na	na
2013	13.4	31.7	26.8	21.8	6.4
2014	na	na	na	na	na
Online banking bill payment					
2012	na	na	na	na	na
2013	13.3	30.4	24.6	24.3	7.3
2014	na	na	na	na	na

Table 37j
Assessments of Payment Instruments: Speed at Time of Payment

	Very slow	Slow	Neither slow nor fast	Fast	Very Fast
Cash					
2012	na	na	na	na	na
2013	1.3	5.1	10.9	28.1	54.6
2014	na	na	na	na	na
Check					
2012	na	na	na	na	na
2013	11.9	37.3	26.8	18.5	5.5
2014	na	na	na	na	na
Money order					
2012	na	na	na	na	na
2013	22.7	30.9	28.8	12.6	5.1
2014	na	na	na	na	na
Debit card					
2012	na	na	na	na	na
2013	1.5	1.2	10.0	39.9	47.4
2014	na	na	na	na	na
Credit card					
2012	na	na	na	na	na
2013	1.5	2.1	11.4	38.4	46.6
2014	na	na	na	na	na
Prepaid card					
2012	na	na	na	na	na
2013	3.4	5.3	23.6	36.8	31.0
2014	na	na	na	na	na
Bank account number payment					
2012	na	na	na	na	na
2013	7.4	17.5	31.4	28.3	15.4
2014	na	na	na	na	na
Online banking bill payment					
2012	na	na	na	na	na
2013	2.5	6.1	21.9	40.3	29.2
2014	na	na	na	na	na

Table 37k **Assessments of Payment Instruments: Speed of Payment Deduction** 

Percentage of consumers Neither slow Very slow Slow **Fast** Very Fast nor fast Cash 2012..... na na na na na 74.2 1.9 2013..... 9.2 10.4 4.4 2014..... na na na na na Check 2012..... na na na na na 2013..... 2.1 52.7 2.1 10.4 32.8 2014..... na na na na na Money order 2012..... na na na na na 2013..... 11.3 21.3 36.4 20.0 10.9 2014..... na na na na na **Debit card** 2012..... na na na na na 67.8 2013..... 1.5 1.7 26.2 2.9 2014..... na na na na na Credit card 2012..... na na na na na 2013..... 1.9 2.2 36.0 44.1 15.9 2014..... na na na na na Prepaid card 2012..... na na na na na 2013..... 10.1 14.3 59.0 14.0 2.6 2014..... na na na na na Bank account number payment 2012..... na na na na na 2013..... 1.6 3.8 43.4 44.1 7.0 2014..... na na na na na Online banking bill payment 2012..... na na na na na 2013..... 2.2 44.8 42.3 4.7 6.1 2014.....

na

na

na

na

na

Table 371
Assessments of Payment Instruments: Speed of Recipient Receiving Payment
Percentage of consumers

1 creenings of consumers	Very slow	Slow	Neither slow nor fast	Fast	Very Fast
Cash					
2012	na	na	na	na	na
2013	1.0	2.0	6.5	21.9	68.6
2014	na	na	na	na	na
Check					
2012	na	na	na	na	na
2013	7.8	39.3	32.6	16.4	3.9
2014	na	na	na	na	na
Money order					
2012	na	na	na	na	na
2013	6.7	24.3	36.0	23.9	9.0
2014	na	na	na	na	na
Debit card					
2012	na	na	na	na	na
2013	0.6	3.9	20.3	48.0	27.2
2014	na	na	na	na	na
Credit card					
2012	na	na	na	na	na
2013	1.8	9.7	27.6	43.7	17.3
2014	na	na	na	na	na
Prepaid card					
2012	na	na	na	na	na
2013	1.4	6.3	26.5	43.1	22.7
2014	na	na	na	na	na
Bank account number payment					
2012	na	na	na	na	na
2013	2.6	14.0	34.1	37.2	12.0
2014	na	na	na	na	na
Online banking bill payment					
2012	na	na	na	na	na
2013	2.4	9.3	30.9	41.1	16.3
2014	na	na	na	na	na

Table 37m
Assessments of Payment Instruments: Speed of Notification of Balances

	Very slow	Slow	Neither slow nor fast	Fast	Very Fast
Cash					
2012	na	na	na	na	na
2013	1.4	2.5	18.2	26.2	51.7
2014	na	na	na	na	na
Check					
2012	na	na	na	na	na
2013	11.9	40.9	28.8	14.6	3.8
2014	na	na	na	na	na
Money order					
2012	na	na	na	na	na
2013	6.7	16.8	42.6	19.7	14.2
2014	na	na	na	na	na
Debit card					
2012	na	na	na	na	na
2013	1.1	5.8	18.6	46.5	28.0
2014	na	na	na	na	na
Credit card					
2012	na	na	na	na	na
2013	2.8	15.1	29.7	36.7	15.6
2014	na	na	na	na	na
Prepaid card					
2012	na	na	na	na	na
2013	2.1	7.3	35.9	33.5	21.2
2014	na	na	na	na	na
Bank account number payment					
2012	na	na	na	na	na
2013	3.0	14.8	30.9	38.0	13.2
2014	na	na	na	na	na
Online banking bill payment					
2012	na	na	na	na	na
2013	1.9	9.7	27.5	42.0	18.9
2014	na	na	na	na	na

Table 37n
Assessments of Payment Locations: Security
Percentage of consumers

	Survey year	Very risky	Risky	Neither risky nor secure	Secure	Very secure
	2012	0.6	2.0	9.7	28.0	59.8
In person	2013	0.6	2.8	12.8	38.5	45.4
_	2014	na	na	na	na	na
	2012	3.2	18.7	31.3	37.4	9.4
By mail or other delivery service	2013	5.2	28.9	35.8	26.7	3.4
	2014	na	na	na	na	na
	2012	3.8	18.2	30.8	34.2	13.0
Landline phone	2013	na	na	na	na	na
	2014	na	na	na	na	na
T	2012	4.3	20.7	22.5	42.0	10.5
Laptop or desktop computer	2013	na	na	na	na	na
(internet)	2014	na	na	na	na	na
Web browser on a laptop or	2012	na	na	na	na	na
desktop computer, tablet, or	2013	11.0	38.1	24.4	23.2	3.2
mobile phone	2014	na	na	na	na	na
Laptop or desktop computer	2012	9.6	35.9	32.8	17.1	4.5
(voice call using service like	2013	na	na	na	na	na
Skype)	2014	na	na	na	na	na
	2012	11.2	32.3	29.1	22.1	5.4
Mobile phone (voice call)	2013	na	na	na	na	na
	2014	na	na	na	na	na
	2012	10.5	33.8	29.2	21.8	4.8
Mobile phone (internet)	2013	na	na	na	na	na
	2014	na	na	na	na	na
	2012	18.9	39.6	25.9	12.8	2.8
Mobile phone (text message)	2013	6.7	32.2	21.2	35.4	4.5
	2014	na	na	na	na	na
	2012	na	na	na	na	na
Mobile phone (app)	2013	15.5	42.5	26.7	13.3	2.1
	2014	na	na	na	na	na
	2012	7.0	27.8	31.8	27.3	6.1
Tablet (internet)	2013	na	na	na	na	na
	2014	na	na	na	na	na
TD 11 . /	2012	14.6	36.1	32.8	13.8	2.7
Tablet (voice call using service	2013	na	na	na	na	na
like Skype)	2014	na	na	na	na	na
Voice call (landline phone,	2012	na	na	na	na	na
mobile phone, or internet service	2013	6.9	28.7	32.1	28.2	4.2
like Skype)	2014	na	na	na	na	na

Notes: 1, 2, 4.

Table 370
Risk of Overdrafting a Bank Account

	(5) Extremely likely	(4)	(3)	(2)	(1) Not at all likely
Check					
2012	na	na	na	na	na
2013	27.1	33.4	13.9	8.8	16.7
2014	na	na	na	na	na
Debit card					
2012	na	na	na	na	na
2013	18.0	25.0	17.0	18.0	22.0
2014	na	na	na	na	na
Bank account number payment					
2012	na	na	na	na	na
2013	13.7	24.3	25.6	16.8	19.6
2014	na	na	na	na	na
Online banking bill payment					
2012	na	na	na	na	na
2013	12.3	20.8	24.5	20.1	22.3
2014	na	na	na	na	na

Table 37p Assessment of Debit Authorization Mode

Percentage of consumers

Security	Very risky	Risky	Neither risky nor secure	Secure	Very secure
PIN debit card					
2012	4.7	13.8	14.0	43.5	24.1
2013	6.1	16.2	16.4	46.5	14.9
2014	6.1	15.9	16.6	43.0	18.3
Signature debit card					
2012	3.6	16.8	26.7	37.5	15.4
2013	5.1	27.5	25.7	33.7	8.0
2014	5.7	20.4	27.0	34.7	12.2
No PIN and no signature debit card					
2012	38.9	36.5	15.0	6.2	3.3
2013	48.2	31.4	12.5	5.8	2.0
2014	43.4	30.7	15.1	7.4	3.4
Using a debit card online					
2012	19.5	37.2	21.7	17.5	4.1
2013	19.2	42.7	20.9	15.2	2.1
2014	22.4	37.7	19.5	17.4	3.0

**Table 37q Preferred Way of Authorizing Debit Card Payments**Percentage of consumers

	2012	2012	2014
	2012	2013	2014
PIN	53.6	51.8	54.7
Signature	23.5	24.0	20.2
Either one is fine/I'm indifferent	22.9	24.2	21.8
Neither one/ I prefer not to enter a PIN or give my signature	na	na	3.3

Notes: 1, 2, 4.

Table 38

Demographics: Gender, Age, Race, Ethnicity, and Education

Percentage of consumers, except where noted\*

2012 2013 2014 U.S. Population age 18 + older (millions)† 235.0 237.4 239.6 Number of survey respondents 2,065 2,089 1,809 Gender 48.2 48.1 Male 48.1 51.9 Female.... 51.9 51.8 Age 4.8 18–24..... 6.2 6.3 24.5 25–34..... 23.6 26.1 35–44..... 15.5 16.5 15.1 45–54..... 19.1 18.6 18.9 55–64..... 16.4 16.6 16.7 65 and older..... 18.4 18.5 18.3 Race White..... 73.6 75.8 75.0 Black 14.6 11.9 11.7 Asian..... 2.8 2.5 2.5 Other..... 9.0 9.8 10.8 **Ethnicity** Hispanic or Latino. 14.3 18.6 17.4 **Education** No high school diploma..... 7.1 7.3 6.9 35.1 34.6 35.0 High school. Some college.... 28.8 29.2 28.7 College..... 16.5 17.1 16.9 12.5 11.8 12.5 Post-graduate study.....

<sup>\*</sup> Estimates are weighted. The table of unweighted sample demographics is available upon request.

 $<sup>\</sup>dagger$  Source: Haver Analytics. October estimate, Civilian Noninstitutional Population by Sex and Age.

Table 39
Income and Labor Force Status

2012 2013 2014 Household income Less than \$25,000..... 22.9 23.3 24.1 25.2 \$25,000-\$49,999..... 26.5 23.8 \$50,000-\$74,999.... 18.7 19.1 20.2 \$75,000-\$99,999.... 10.5 13.2 11.1 \$100,000-\$124,999..... 8.8 8.9 9.6 \$125,000 or more..... 11.1 11.1 11.8 \$125,000-\$199,999..... 8.1 8.2 9.0 \$200,000 or more.... 3.0 2.9 2.8 Respondent income 51.4 50.2 51.3 Highest in household..... About equal with highest..... 13.3 14.6 13.5 2nd highest..... 25.5 24.7 26.8 3rd highest or lower..... 9.8 10.5 8.4 Labor force status 60.6 62.6 63.6 Working now.... 7.5 Unemployed and looking for work†.... 9.3 8.4 0.9 0.7 Temporarily laid off, on sick or other leave.... 0.8 Disabled 7.8 7.8 8.5 Retired 19.2 18.1 18.3 Homemaker.... 10.1 9.7 11.2 2.9 2.7 2.8 Other.....

Notes: 1, 4, 5.

<sup>\*</sup> Estimates are weighted. The table of unweighted sample demographics is available upon request.

<sup>†</sup> The numbers for unemployment differ from the official BLS numbers because of differences between the RAND American Life Panel and the BLS in the methodologies for collecting the data and computing the unemployment rate.

Table 40
Consumers' Financial Responsibility in the Household
Percentage of consumers

	None	Some	Shared equally	Most	All
Bill payment					
2012	15.1	9.4	15.0	7.6	52.9
2013	13.9	10.1	13.9	8.7	53.4
2014	13.0	10.7	16.0	8.6	51.7
Shopping					
2012	8.5	15.3	22.8	14.7	38.6
2013	7.4	16.0	19.1	15.7	41.8
2014	9.0	14.0	23.1	13.8	40.0
Saving and investing					
2012	10.5	10.0	30.7	13.5	35.2
2013	11.2	7.6	29.2	14.6	37.4
2014	9.1	8.6	32.4	12.6	37.4
Other					
2012	8.5	9.9	30.2	14.6	36.8
2013	9.5	7.3	30.1	13.8	39.2
2014	8.9	7.8	32.2	13.6	37.5

Notes: 1, 2, 4.

Table 41
Selected Assets and Liabilities
Percentage of consumers, except as noted

	2012	2013	2014
Home ownership rate	65.3	61.8	63.0
Credit card debt			
Carried unpaid balance at any time during the past 12 months	38.9	42.2	41.6
Carried unpaid balance last month	36.3	36.3	37.5
Mean credit card balance unpaid, previous month (dollars)			
Per credit card adopter	3,931	3,840	3,793
Per adopter with unpaid balance	7,292	6,465	6,640
Median credit card balance unpaid, previous month (dollars)			
Per credit card adopter	84	99	162
Per adopter with unpaid balance	3,114	2,871	2,944
Change in unpaid balance since a year ago			
Much lower	14.2	15.2	14.9
Lower	24.0	26.6	26.9
About the same	29.4	31.6	32.2
Higher	20.7	19.4	17.6
Much higher	11.7	7.2	8.5
Interest rate on card with largest balance			
0%	10.8	9.4	na
0.01–5.00	5.5	6.9	na
5.01–10.00	20.1	20.9	na
10.01–15.00	24.0	19.1	na
15.01–20.00	19.1	18.2	na
20.01–25.00	9.8	11.6	na
25.01–30.00	4.3	4.6	na
30.01–35.00	0.2	0.2	na
More than 35%	0.1	0.1	na
I don't know	6.0	8.9	na

Notes: 1, 2, 4, 5.