



## Moving toward a more efficient electronic clearing system for all types of payments

**T**he 2010 *Federal Reserve Payments Study*\* detailed data results, released in early April 2011, reveal that we continue to experience extraordinary changes in the utilization of payment instruments as this nation's propensity for all things electronic continues to grow.



From 2006 to 2009—the period covered by the study—all types of electronic payment methods grew with the exception of credit cards. (Wire transfers were not included in the study.) The study revealed that electronic payments increased 9.3\*\* percent per year since 2006 and represent almost 80 percent of all noncash payments.

The study results also indicated that debit card usage continues to grow at double-digit annual rates. While the study did not measure cash usage, it is likely that some of the growth in debit card usage has come from its substitution for cash payments, as noted in the summary report released in December 2010. Another trend identified in the study is the increased usage of prepaid debit cards, which are an increasingly significant part of the noncash payments landscape and meet a range of market needs.

As in previous years, check payments continued to decline and were eclipsed by debit cards, which are now the most used noncash instrument in the United States. Additionally, nearly all interbank checks are now cleared electronically. This has increased the efficiency of check clearing at a time when check usage is declining at a faster rate than in prior periods.

Not only does this study show the continued movement from checks to electronic means of making payments, but we also see the extraordinary progress the industry has made in electronifying the clearing process for the 27.8 billion checks still being written. We anticipate that the data from this study will spawn a number of ancillary research efforts to further refine the data and reveal more about consumer and business preferences in their selection of retail payment instruments.

With the financial services industry focused in one direction, change has been dramatic. The Federal Reserve Banks will continue to deliver product offerings for financial institutions of all sizes to help them capitalize on the efficiencies offered through electronic payments.

Sincerely,

**Richard Oliver**  
Executive Vice President  
Director, Retail Payments Risk Forum  
Federal Reserve Bank of Atlanta

\*Download the complete study from [FRBservices.org/communications/payment\\_system\\_research.html](http://FRBservices.org/communications/payment_system_research.html).

\*\*The Compound Annual Growth Rate (CAGR) for just electronic payments.

## 2010 Details

The *2010 Federal Reserve Payments Study* is part of an ongoing effort by the Federal Reserve System to measure trends in noncash payments in the United States and share the results broadly as a means of better informing future investment decisions facing this country's payments industry.

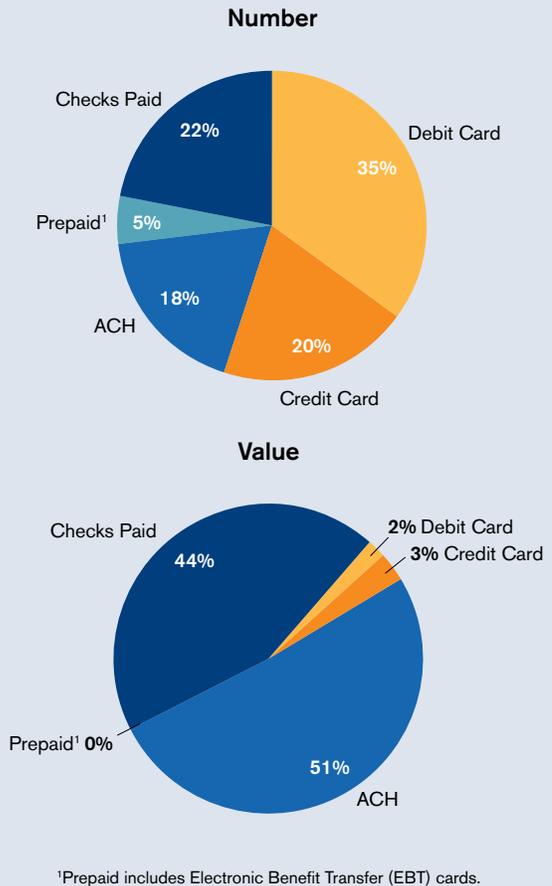
Similar to previous studies, the *2010 Federal Reserve Payments Study* consists of three research efforts commissioned to estimate the annual number, dollar value and composition of noncash retail payments in the United States. The research efforts included:

1. The *Depository Institutions Payments Study*, which included responses from approximately 1,300 financial institutions (commercial banks, savings institutions and credit unions).
2. The *Electronic Payments Study*, which included responses from 94 of the largest payment networks, processors and card issuers.
3. The *Check Sample Study*, which characterizes check payments according to type of payer, payee and purpose. Study data are based on a random sample of checks processed by 11 banks that use the Viewpointe archive.

With electronic payments now representing over three-quarters of all noncash payments, the *2010 Federal Reserve Payments Study* demonstrated that the migration from paper to electronic payment methods shown in previous studies is continuing, and in some cases at increasing rates.

**Growth in all payment types appears to have been slowed by the economic recession. In fact, credit cards averaged an annual decline in transaction value of approximately 3 percent from 2006 to 2009, likely affected most by the economic slump that began in third quarter 2008. This trend is not expected to continue as the economy recovers.**

### Distribution of Noncash Payments in 2009



## Technology and financial innovations contribute to the decline of checks

Consumers have been shifting away from writing checks, a trend we have seen over the past several years. The *2010 Federal Reserve Payments Study* indicated that debit card usage has now surpassed checks for noncash payments. The increase in electronic payments and the decline of checks can be attributed to technological and financial innovations that influenced the payment instrument choices of consumers and businesses.

In 2009, debit cards outpaced checks as the most used noncash payment alternative, which is represented by an increase in debit card payments over the last three years, along with a decrease in the number of checks written over that same period. Remittance checks—those written to pay bills—comprised over half of all checks written. Additionally,

**Of the approximately 18 billion interbank checks written in 2009, 92 percent, or 16.3 billion interbank checks were presented electronically to the paying bank.**

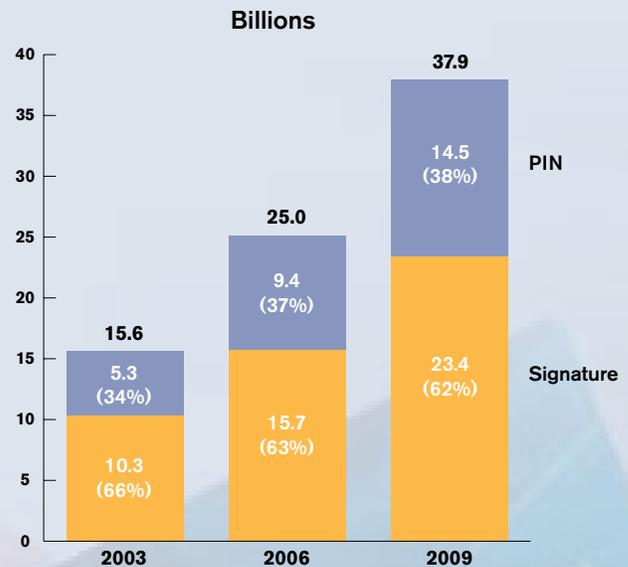
approximately 60 percent of remittance checks were written by consumers to businesses. The remaining 40 percent were business-to-business checks.

Nearly all interbank checks are now cleared electronically. This has increased the efficiency of check clearing at a time when check usage is declining at a faster rate than in prior periods. According to the *2010 Federal Reserve Payments Study*, the number of checks paid decreased 7.1 percent per year between 2006 and 2009.

While the number of check payments is declining, the number of checks processed electronically has continued to grow to nearly 100 percent conversion in 2009. Consistent with the past three years, the electronification in clearing interbank checks has more than doubled as image exchange between banks has expanded. Of the approximately 18 billion interbank checks written in 2009, 92 percent, or 16.3 billion interbank checks (excluding Treasury checks and postal money orders), were presented electronically to the paying bank. A total of 97 percent of interbank checks involved electronic clearing at some point in the process.

Not only are checks and check processing becoming increasingly electronic, account statements appear to be heading in that direction, too. The study also estimates that 4.5 billion account statements were issued annually on deposit accounts. Nearly 50 percent of paper statements—the most common form—contained only itemized listings of transactions, without the enclosure of printed images of checks or the checks themselves. Fully electronic statements and image statements each represented nearly 25 percent of all statements. Another shift is the change in statements with checks enclosed. While common in the past, such statements are now incredibly rare, at less than 1 percent.

### Number of Debit Card<sup>1</sup> Payments by Type



Figures may not add due to rounding.

<sup>1</sup>Debit card includes transactions funded from demand deposit accounts and does not include "prepaid" debit.

## Debit card usage continues to grow at double-digit annual rates

As previously mentioned, debit card usage continued to grow at double-digit annual rates from 2006 to 2009, up by 14.8 percent since 2006. Personal Identification Number (PIN) debit card payments increased more rapidly, at 15.6 percent per year, than signature debit payments, at 14.3 percent per year.

The fastest growing instrument included in this study is the prepaid card, which includes single-use and reloadable cards. The total number of prepaid card payments increased by approximately 22 percent per year from 2006 to 2009, and the value of prepaid transactions increased nearly 23 percent per year. Prepaid cards are an increasingly significant part of the noncash payments landscape, and they meet a range of market needs.

All types of prepaid cards showed substantial increases from 2006 to 2009. With 2.7 billion transactions in 2009, Private Label (or closed-loop) prepaid cards, such as those issued by and used only at specific retail stores, are still the most commonly used type of prepaid card, as was the case in 2006. The other major categories showing robust growth between 2006 and 2009 were the use of Electronic Benefits Transfer (EBT) cards,

which are used to spend government benefits and General Purpose (or open-loop) prepaid cards, which carry one or another widely accepted network brands. An estimated 2 billion transactions were made using EBT cards, reflecting 21.4 percent average annual growth since 2006. The number of General Purpose prepaid card transactions increased at an average annual rate of 63.4 percent, from 0.3 billion transactions in 2006 to 1.3 billion in 2009.

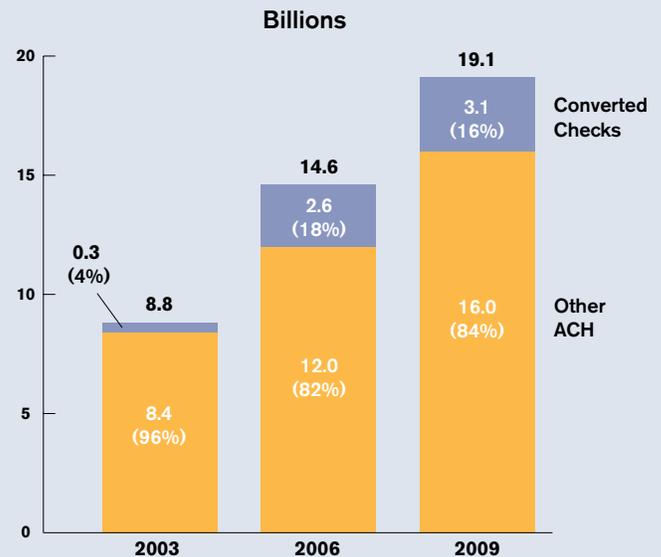
It is important to note that while debit, credit and prepaid card usage is increasing at double-digit rates, the value of automated clearing house (ACH) transactions and checks paid are 51 percent and 44 percent, respectively. This far exceeds the value of debit, credit card and prepaid cards, which contributes to 5 percent of the total noncash payments value.

### ACH payments represent largest value portion of noncash payments

ACH transactions continued to represent the largest value of noncash payments at \$37.2 trillion, or 18 percent, of all noncash payments in 2009. The value of ACH payments increased 6.3 percent over 2006, and the number of transactions also increased 9.4 percent annually from 2006 to 2009, or by 4.5 billion payments. However, ACH growth decelerated between 2006 and 2009, with the number of ACH entries growing more rapidly earlier in the three-year period than at the end. While the total value of ACH payments in 2009 exceeded those in 2006 by \$6.3 trillion, the average value of an ACH payment declined from \$2,122 to \$1,946 during the period.

The Federal Reserve Banks will continue to look for ways to meet the industry's needs and provide innovative products to help further support this noncash payment mechanism. For example, in 2010, our FedGlobal® ACH Payments expanded its reach to Latin America and Europe, creating a cost effective medium for sending cross-border payments to 32 countries. This expansion helped in lowering the cost of international payments, while expanding global commerce opportunities.

**Number of ACH Payments by Type**



Figures may not add due to rounding.

### Focused in one direction

Due to the combined rise in debit card usage as an electronic payment alternative, along with the continued use of ACH transactions and reduction of checks as noncash alternatives, the gap between electronic payment alternatives and paper checks is ever increasing. We anticipate this shift will give rise to new opportunities and efficiencies in noncash payment options as we move forward. In this new era of payments, we will continue to modernize our Check 21-enabled product suite, FedACH® Services and paper check processing services to provide the accessibility and flexibility financial institutions need to compete in this increasingly electronic environment.

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