

**A Summary of the Atlanta Forum on Transforming
U.S. Retail Payments
November 2, 2006**

The Federal Reserve System's Payments System Policy Advisory Committee has an ongoing program to discuss payments system developments and barriers to innovation with the payments industry and relevant payments system participants.¹ As part of its program, the committee hosted a forum with industry leaders on the continuing transformation of the U.S. retail payments system. The forum was held at the Federal Reserve Bank of Atlanta on November 2, 2006. During the forum, industry experts representing depository institutions, payment processors, and nonfinancial corporations provided a variety of perspectives on strategic issues and opportunities associated with the changing U.S. retail payments system.

Retail payments in the United States are in a period of transition. A 2004 Federal Reserve study on the use of retail payment instruments revealed for the first time that the number of electronic payments in the United States--such as credit card, debit card, and automated clearinghouse (ACH) payments--exceeded check payments. A range of data now indicate that electronic payments have continued to increase and that check payments have continued to decline. This transformation promises significant efficiency gains for payments system participants, particularly over the long run, but also poses challenges. The forum participants discussed how developments in both consumer-to-business and business-to-business payments are influencing the pace and direction of change. The participants identified a number of opportunities and challenges they face and discussed possible actions to address perceived barriers to innovation.

¹ The Federal Reserve's Payments System Policy Advisory Committee provides the Board with a view of developments in both wholesale and retail payments at a time of significant overall change in the U.S. payments system and helps coordinate Federal Reserve work involving domestic and international payments and settlement systems. The members of the committee are Donald Kohn (chair), Vice Chairman, Board of Governors of the Federal Reserve System; Timothy Geithner, President of the Federal Reserve Bank of New York; Randall Kroszner, Governor, Board of Governors of the Federal Reserve System; Cathy Minehan, President of the Federal Reserve Bank of Boston; Michael Moskow, President of the Federal Reserve Bank of Chicago; Gary Stern, President of the Federal Reserve Bank of Minneapolis; and Kevin Warsh, Governor, Board of Governors of the Federal Reserve System. Patrick Barron, First Vice President of the Federal Reserve Bank of Atlanta, is a liaison member of the committee.

Transformation of point-of-sale payments

The forum participants discussed two main aspects of the transformation of consumer-to-business payments initiated at point-of-sale locations. First, consumers are making fewer payments by paper check and more with electronic payment instruments, such as credit and debit cards. Second, a growing number of paper checks are now converted to ACH payments or collected using electronic check collection methods. The participants discussed the opportunities and challenges associated with the growing use of electronic payments at the point of sale, and with the electronic conversion and collection of checks.

Electronic payments at the point of sale

Several participants provided information illustrating the historical and projected growth of credit card and debit card payments, both in absolute terms and relative to paper-based payments. The participants indicated that while checks are likely the most widely-used non-cash payment instrument, credit card and debit card transactions *combined* outnumber check transactions, and debit cards are the fastest growing of these payment types.

One participant explained the growth in debit card payments by discussing the benefits of the debit card to consumers, banks, and merchants. The participant noted that debit cards are often more convenient for consumers than paper checks and may not run the risk of “overspending” or incurring the interest charges associated with credit cards.² Another advantage is that consumers may feel they have less potential liability for fraudulent transactions from debit cards than from check payments.³ The participant also suggested that banks offer debit cards both because consumers have come to expect them, and because debit card transactions can be less costly for banks to process than cash or check transactions. Finally, the participant explained that merchants find debit

²The use of debit cards can be associated with consumer account overdrafts and any related fees.

³Consumers generally are not liable for losses stemming from the fraudulent use of debit cards or credit cards. Regulation E and Regulation Z generally limit a consumer’s liability from unauthorized electronic funds transfers or unauthorized credit card transactions to fifty dollars. Consumers are further protected by Visa’s and MasterCard’s “zero liability” policies, which stipulate that consumers are not liable for losses stemming from the fraudulent use of Visa or MasterCard debit cards or credit cards. Consumers are also protected from unauthorized check transactions. The Uniform Commercial Code stipulates that consumers are not liable for unauthorized check transactions provided the consumer notifies their bank within a reasonable period.

cards attractive because it is often faster and less costly to accept payments by debit card than by cash or check. Card payments have become increasingly important in situations where transaction speed is a priority for merchants, such as in check-out lines and at fast food restaurants.

Some participants discussed emerging opportunities for growth, such as contactless cards or mobile devices tied to debit cards. Debit cards are also being accepted to pay for an increasing array of services. The participants also discussed obstacles to continued growth. One participant stated that some consumers are confused about the difference between the “PIN” and “signature” debit options.⁴ Other participants noted that some consumers prefer using a credit card at the point of sale to take advantage of reward programs, even though some debit card issuers now offer reward programs as well.

Checks converted to electronic payments

The participants discussed the conversion of paper checks to electronic payments. Several participants discussed opportunities afforded by check-to-ACH conversion. Some provided data illustrating the recent growth in checks converted to ACH payments at a physical point of sale (often referred to as point-of-purchase (POP) transactions).⁵ Although the number of payments converted at the point of sale has been growing in recent years, it has grown less quickly than some participants had expected. One participant noted several factors that may explain the slower-than-anticipated growth of POP transactions, including longer checkout times for consumers and cost and risk concerns for merchants.

The participants also discussed a new form of check-to-ACH conversion called back office conversion (BOC). Beginning in March 2007, NACHA rules will permit merchants that accept checks at the point of sale to convert eligible checks to

⁴ Consumers can authorize debit card transactions at the point of sale by providing either a signature (also referred to as a signature debit transaction) or a personal identification number, or PIN (also referred to as a PIN debit transaction).

⁵ When using POP to convert a paper check to an ACH transaction, a merchant scans the routing information on a check at the point of sale to obtain the information necessary to process the payment and returns the voided check to the consumer.

ACH transactions in the back office.⁶ Several participants stated that they expect that BOC may become the prevalent check-to-ACH conversion method within the next five years. Some participants expressed concern that merchants that convert checks using BOC may not appropriately store and destroy checks that have been converted pursuant to NACHA rules.⁷ A number of participants specifically highlighted the potential for the unauthorized use of customer information found on checks that have been converted and stored. Several participants were concerned that there may not be appropriate controls over the storage of these checks and advocated coordinated industry efforts to develop and enforce standards for the safeguarding and destruction of converted checks. The participants did not believe that these concerns should prevent the adoption of BOC techniques. They did, however, encourage industry action to safeguard customer information and prevent financial losses. Participants also noted that industry action could help avoid the possibility of burdensome legislation and ensure continued consumer confidence in the payment system.

In addition to developments using the ACH, the participants also discussed the implications of Check 21 for the electronic processing of checks.⁸ Several participants referred to Check 21 as an important catalyst for the greater adoption of electronic technologies in check processing. By permitting banks to use substitute checks in the check collection process when the recipient could not or would not accept electronic presentment, Check 21 has expanded the use of electronic processing of check payments. The participants generally agreed, however, that the use of substitute checks for check presentments should be viewed as an intermediate step, and that the desired

⁶ The NACHA rules stipulate that checks for more than \$25 thousand or that contain an auxiliary “on-us” field are ineligible for conversion.

⁷ NACHA rules require that source documents (checks) collected under BOC rules be securely stored prior to their destruction.

⁸ The Check Clearing for the 21st Century Act (Check 21) became effective in October 2004. Before Check 21, depository institutions had to present the original paper check to a paying bank unless the paying bank had agreed to accept presentment of the check electronically. While Check 21 did not mandate the electronic processing or presentment of checks, it did authorize a new negotiable (paper) instrument, called a substitute check, which is the legal equivalent of the original check. Substitute checks can be presented to a paying bank that requires presentment of paper checks.

goal should be the electronic exchange of payment information and check images between depository institutions.

A number of participants generally viewed Check 21 and check-to-ACH conversion options as complementing, rather than competing with, one another. For instance, while check-to-ACH conversion products can be used for many payments, Check 21 products can be used to process checks that cannot be converted to ACH payments under current NACHA rules. Some participants also discussed a situation involving remote deposit capture in which an institution may choose between check-to-ACH conversion and Check 21 clearing alternatives for each item in order to implement a “least cost” processing strategy. In this process, a business can scan check payments received at all locations, including lock boxes, walk-in payment desks, or at the point of sale, and send to its depository institution an electronic file including the information necessary to process the payments. The depository institution would then determine whether to convert the payment to an ACH transaction (where permitted by NACHA rules) or submit it for processing as a Check 21 item based upon cost or other considerations.

Many participants discussed the potential benefits of converting checks to electronic payments, including lower transportation and processing costs and faster return times.⁹ The participants also discussed several challenges that must be overcome to accelerate the transition to electronic payment processing. Some participants mentioned the importance of controls to prevent the duplicate presentment of checks that have been processed electronically. Others noted the costs and information technology challenges faced by depository institutions in updating back-office processing and risk-management systems to *receive* check presentments electronically.

The participants had differing views on how best to increase incentives for depository institutions to accept check presentments electronically. Some participants advocated that banks that do not accept electronic check files bear the costs of printing substitute checks, while others reasoned that collecting or returning banks gain most of the benefits of electronic check clearing and should absorb these costs. Despite their

⁹ Faster return times, for example, can speed the identification of fraudulent transactions and reduce associated losses for payees and banks.

differing perspectives on these issues, the participants generally agreed that finding a way for all stakeholders to share the benefits associated with electronic check processing will be critical to the successful transformation to a highly electronic check system.

Transformation of remittance (bill) payments

The participants discussed three approaches that organizations are taking to transform the processing of remittance, or bill, payments: (1) the accounts receivable conversion (ARC) model in which paper checks are converted to ACH transactions at lock-box locations, (2) the “biller direct” model in which a biller provides Internet- or telephone-based systems for customers to make payments electronically, and (3) the “bank consolidator” model in which banks offer a single, Internet-based access point for customers to make multiple bill payments.¹⁰

Several participants provided statistics showing that the ARC transaction type has been the fastest growing type of ACH transaction in recent years, although this growth has slowed in the past twelve months. The participants discussed several advantages for billers using ARC, including lower costs and faster processing than traditional paper check collection, which allows billers to identify fraudulent payments more quickly. The participants also discussed challenges that must be overcome to ensure the continued success of ARC. Some again emphasized the need to maintain strong controls over converted checks to prevent unauthorized access to consumer information and to avoid creating duplicate debits to customers’ accounts. Other participants noted concerns that if NACHA rules were to permit the large-scale conversion of business checks without changes in risk management systems, these conversions could bypass existing fraud-detection services such as “positive pay.”¹¹ One

¹⁰ Although the participants did not specifically discuss this method, many consumers pay bills electronically by authorizing billers to initiate recurring debits from consumer accounts at pre-determined intervals.

¹¹ Many banks offer “positive pay,” a fraud-detection service, to their corporate customers. As part of this service, the corporation sends to its bank payment data for checks it has issued. As checks are presented for payment, the corporation’s bank validates that the data found on the checks match the information provided by the corporation. If the check data matches the data provided, the check is paid. If the data do not match, further investigation is conducted to determine whether the check should be returned unpaid. Because check and ACH systems are not typically integrated with one another at financial institutions, some participants were concerned that this type of fraud detection may not be effective for checks converted to ACH payments, which could introduce additional risk into the payment process.

participant pointed out the dependency of ARC on check volumes, observing that as check volumes continue to decline, ARC transactions as a payment category would also face downward pressure.

The participants also discussed the biller direct model, in which billers provide channels for their customers to pay bills directly and electronically, generally over the Internet.¹² Some participants noted cost savings for billers if they allow customers to view and pay bills over the Internet, including the lower cost of processing remittance payments and the potential to reduce costs associated with printing and shipping paper bills. One participant also discussed the opportunity to increase sales and revenue by reaching customers with information in the bill payment process, such as offers for new products and services. Some participants suggested that billers may need to provide additional incentives for customers to pay bills electronically, including offering cash-back programs and accepting payments using credit or debit cards. Participants noted that consumers may also benefit from greater control over the timing of payments in this model, which may allow “same-day” remote bill payments.¹³ The participants also discussed several challenges for billers with this model, including the need to educate consumers to enter the information necessary to process properly the payment, such as the payment amount and the customer’s bank and account information. Other participants noted difficulties integrating multiple billing systems and other back-office processes for organizations that have experienced mergers or acquisitions.

The participants discussed the bank consolidator, or “bill pay,” model in which customers provide their bank with information necessary to send payments and payment information to billers on the customers’ behalf. The participants noted that this model allows consumers to pay a number of bills from one intermediary and provides opportunities for banks to attract and retain customers. One participant suggested that online bill payment customers typically become more profitable than customers who do not use online bill pay. Another noted that bill pay customers are more likely to do all of

¹² One participant highlighted evidence that customers increasingly have access to broadband Internet connections and are increasingly viewing bills online as creating opportunities for this model to grow in popularity.

¹³ Even though a payment initiated on a given day would take additional time for clearance and settlement, late charges might be avoided on a consumer’s account if a payment is initiated on time.

their banking online, making them less costly to serve overall. The participants suggested that billers benefit from having banks act as intermediaries by essentially outsourcing to banks the responsibility for authentication and risk management, while consumers value the convenience afforded by this model. The participants discussed challenges with the bank consolidator model, including the reluctance of some customers to stop writing paper checks or to take the time to set up the bill pay service, and the potential that customer accounts may be debited prior to the payment due date.¹⁴ Several participants also raised concerns that apply to online banking more generally, such as the ongoing targeting of banks by phishing schemes and the potential liability if these schemes result in the compromise of consumer data.¹⁵

The participants did not think these concerns would prevent the eventual success of the bank consolidator model. In fact, some participants suggested that consumers' preference for convenience would ultimately result in the emergence of the bank consolidator model as the dominant paradigm. Regardless of whether one model ultimately prevails, the participants generally agreed that the trend towards the electronic processing of remittance payments would continue.

Transformation of business-to-business payments

Many participants stated that the majority of business-to-business payments continue to be made by paper check.¹⁶ Some participants noted that absent a better alternative, businesses will continue to make check payments. Using paper checks, buyers can control the timing of payments and take advantage of float, while sellers

¹⁴ One participant explained that in order to guarantee that funds are available to make a particular payment, some bill pay services will debit a customer's account prior to the payment due date. If customers are not aware of this practice, it may result in unintentional overdrafts or otherwise make it difficult for customers to manage their finances. Some banks may offer overdraft protection programs to deal with this issue.

¹⁵ Phishing generally involves sending an e-mail (supposedly from a "trusted" company) and requesting that the recipient visit a web site for one reason or another, such as to replace lost account information. The e-mail will provide a web link, which transfers the person to a fraudulent web page that is designed to look like the web page of the business referenced in the e-mail. Typically, the fraudulent web page will request that the consumer enter financial or identity information referenced in the e-mail. Because criminals try to reach as many consumers as possible, they will usually pose as a large merchant or financial institution and will send the phishing e-mail to a large number of e-mail accounts.

¹⁶ Market research conducted by The Clearing House Payments Company and the Reserve Banks' Wholesale Product Office suggests that among businesses that use multiple payment methods, approximately 80 percent of business-to-business payments are made by check. More information on this research is available at <http://www.frbservices.org>.

receive the information they need to post payments to their internal systems and have long-established processes for doing so. In contrast, the process for receiving even relatively small numbers of remittance payments electronically can be costly and time consuming if organizations must use manual processes to determine and post remittance information linked to these payments.¹⁷ Participants generally agreed that to facilitate greater acceptance and faster adoption of electronic business-to-business payments it would be necessary to link payments and remittance information automatically. This would help businesses to integrate their payments operations with back-office accounting systems, such as accounts receivable and payable, while adequately controlling risk.

Several participants spoke more broadly about increasing the use of electronic payments by businesses, identifying challenges internal to their organizations that inhibit the automated receipt of electronic payments, such as the need to demonstrate a positive return on technology investments. One participant stated that the “electronification” of business-to-business payments is a question of “how” rather than “if” this transformation will ultimately take place. The participants generally agreed that various standards initiatives underway in the industry are a positive step towards standardizing remittance information accompanying business-to-business payments, but noted that much more work needs to be done to facilitate the receipt of electronic payments without manual intervention.

Conclusion

The forum participants discussed developments in consumer-to-business and business-to-business payments, as well as the role these developments are playing in the transformation of retail payments from primarily paper-based to primarily electronic payments. While the participants expressed optimism regarding the transformation of retail payments, they also identified a number of barriers. As payments become increasingly electronic, depository institutions and nonfinancial corporations face

¹⁷ Originators of wire transfers or ACH transactions are currently able to include some amount of remittance information in a free-form or addenda field, respectively, when initiating the transaction. This information, however, is not necessary to execute the payment between banks and thus wire transfer and ACH system operators do not check the contents of this field and do not have information to verify its accuracy.

difficult decisions when investing in infrastructure to support both paper and electronic payments and processes.

Overall the participants agreed that the barriers are typical for changing business processes. Their organizations are challenged to make the right technology investments to achieve efficiencies and yield appropriate returns on investments. The participants discussed challenges in integrating diverse back-office systems and particularly in automating the receipt of electronic payments. They emphasized the need to think about payment solutions across traditional payment silos such as checks, ACH payments, and wire transfers. The participants also discussed concerns regarding consumers. Some noted that consumers may be confused about their rights and protections for various types of payments. Others emphasized the need to secure consumers' physical and electronic data, and to ensure that customers know their information is safe.

To overcome these barriers, the participants advocated the continued application of market-driven solutions and noted some of the industry efforts currently underway. They encouraged common action by payment system participants to define standards for the transmission of remittance information with electronic payments. They also emphasized the need to ensure the security of consumers' information, whether it is stored physically on paper checks or electronically in payment files. Specifically, the participants discussed the need for standards regarding the security of checks stored by businesses and payment processors following the electronic conversion of these instruments. The participants strongly advocated industry action in these areas to avoid the need for action by legislators or regulators. They also recognized the need to continue efforts to educate consumers regarding their rights and protections, and regarding schemes that might result in the fraudulent use of their information.

The transformation to electronic processing of retail payments will likely yield cost savings and improvements in operational efficiency in the long run. The ability of payments system participants to meet the challenges identified by the forum participants will be important in realizing these gains while maintaining a safe payments system.