PAYMENT CARDS Center
FEDERAL RESERVE BANK OF PHILADELPHIA

Update

A newsletter published by the Payment Cards Center, providing meaningful insights into developments in consumer credit and payments

Spring 2007

From the Director

Peter Burns, Vice President & Director

Welcome to this edition of *Update*, a periodic publication of the Payment Cards Center that highlights recent activities. Also available on our website, *Update* complements the more complete set of content available at www.philadelphiafed.org/pcc.

As we begin this year, I am reminded that it was a little over six years ago that the Philadelphia Fed created the Payment Cards Center. Looking back over this period, it seems to me that this has been an especially dynamic time and the pace of change shows little sign of abating. The rapid growth and significant innovations in consumer credit and payments have had a profound impact on consumers and the industry. At the same time, new risks and other challenges to market participants and policymakers have arisen.

From its beginning, the Center's goal has been to provide a forum to better understand underlying issues and help inform debate aimed at constructive solutions. As the Center's mission statement emphasizes, we work to achieve these goals through devising an agenda of market-driven research and by convening forums that encourage dialogue among a broad range of stakeholders. This issue of *Update* features several recent examples of efforts to address important concerns.

One of the more significant recent innovations in consumer payments has been the emergence of a variety of new payment applications based on the prepaid- or stored-value-card model. Over the past several years the Center has hosted conferences focused on developments in the industry, written several frequently referenced research papers on the subject, and shared this accumulated learning on both an informal and a formal level with colleagues in the industry and policymakers.

Earlier this year, the Center added two new prepaid card analyses to its Discussion Paper series; this issue of *Update* contains brief summaries of both. The first paper, "General Use Prepaid Cards: The Path to Greater Market Acceptance," by former industry specialist James McGrath, attempts to respond to the question of why some prepaid card applications appear to be more

Mission Statement

The mission of the Payment Cards Center is to provide meaningful insights into developments in consumer credit and payments that are of interest not only to the Federal Reserve but also to the industry, other businesses, academia, policymakers, and the public at large. The Center carries out its mission through an agenda of research and analysis as well as forums and conferences that encourage dialogue incorporating industry, academic, and public-sector perspectives.

In This Issue:

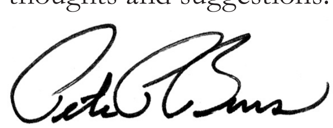
successful than others. In developing his response, McGrath describes a number of characteristics shared by relatively more successful examples and outlines several innovations that he expects will spur new successes.

The second paper highlighted in this issue, written by the Center's Stan Sienkiewicz, addresses the question "Prepaid Cards: Vulnerable to Money Laundering?" This has been an especially vexing issue for many in law enforcement and the industry alike. In his analysis, Stan discusses how and why risk mitigation strategies aimed at deterring the use of prepaid cards for money laundering must necessarily be different from those used to combat traditional payment card fraud. In researching the topic, Stan spoke with colleagues in various government agencies, which have subsequently actively circulated this paper.

Among the most hotly debated subjects of late have been the well-publicized disclosures of data breaches and the resulting compromised cardholder information. To clarify the underlying issues and engage the wide range of affected stakeholders in a search for solutions, the Center hosted a two-day conference last autumn on "Information Security, Data Breaches, and Protecting Cardholder Information." Earlier this year, the Center published a paper highlighting key insights developed during the conference, supplemented by additional and updated information. The paper has been well received and was recently featured as part of an industry-sponsored webinar connected to over 1,000 computers and, presumably, many more individuals.

Last, we also highlight a recent Discussion Paper written by another of the Center's industry specialists, Julia Cheney, on "Supply- and Demand-Side Developments Influencing Growth in the Debit Market." The paper, which analyzes underlying dynamics in this fast-growing market, is based on an internal workshop hosted by the Center and featuring Ron Congemi of First Data Corporation. In his presentation, Ron outlined results from First Data's recently commissioned surveys examining changes in consumer demand and industry supply factors that have been affecting growth in debit transactions. The Center regularly hosts such workshops to learn firsthand from market participants about industry trends and emerging issues.

I hope you enjoy reading this issue of *Update* and learning more about the Payment Cards Center's commitment to exploring current issues and developments in the area of consumer credit and payments. As always, I welcome your thoughts and suggestions.



General-Use Prepaid Cards: The Path to Gaining Mainstream Acceptance

James McGrath

Prepaid cards are characterized by a model where funds are preloaded onto a card for later spending. There are many different kinds of prepaid cards. For example, "closed-loop" prepaid cards are redeemable only at a specific merchant location. Closed-loop prepaid cards are most often retailer-specific gift cards, which have replaced paper gift certificates. By contrast, "open-loop" prepaid cards are branded with the logo of one of the payment networks (Visa, MasterCard, American Express, or Discover) and are redeemable at any retailer accepting that network's cards. In contrast to the success of some closed-loop cards, open-loop cards have not taken off as quickly as many pundits expected. In his new paper, "General-Use Prepaid Cards: The Path to Gaining Mainstream Acceptance,"* James McGrath investigates the business case for issuing general-use prepaid cards. These cards are branded by one of the payment networks and can be used for purchases where the brand is accepted, can have additional funds added to them (they are "reloadable"), and can generally be used to get cash at ATMs. As a result, these cards are functionally similar to traditional debit cards, but they can be delivered outside of traditional banking relationships.

McGrath compares the highly successful closed-loop gift card market to its open-loop counterpart. Single-retailer gift cards have several advantages over open-loop gift cards. For the retailer, they provide a lower cost and more consumer friendly replacement for paper gift certificates. Retailers also benefit from the profit margin on all goods they sell and are said to enjoy a "sales lift" of increased purchases from gift card recipients. By contrast, open-loop network-branded gift cards are more costly because of more complex processing requirements, consumer protections provided by the networks, and customer service requirements. Revenues are limited. Some are derived from "interchange" fees and float value, but, of course, the banks that issue these cards do not benefit from the sales-related profits that accrue to merchants. To generate sufficient revenue, issuers of open-loop gift cards have instituted fee structures that make the cards more expensive for consumers. Despite the wider acceptance of these cards, when positioned as gift cards, general-use prepaid cards do not realize the same level of success as the retailer-issued alternatives. McGrath argues that this example illustrates the challenges to prepaid programs that do not offer consumers a compelling alternative to other, similarly functioning products.

*** Available at the Center's website at: www.philadelphiafed.org/pcc/discussion/D2007MarchGeneralUsePrepaidCards.pdf**

At the same time, he contends that network-branded prepaid cards can create successful solutions in the same way that closed-loop gift cards have: by replacing especially costly and inefficient structures with cheaper and more consumer friendly alternatives – that is, solving real problems and creating real value. He outlines four examples of such applications in government benefits, disaster relief, health care, and payroll disbursements. In each case, he shows how prepaid cards can replace costly older systems with cheaper solutions that provide additional value to payment participants.

General-use prepaid cards are also a promising opportunity for providing financial services to unbanked or underbanked consumers outside of traditional banking relationships. As already noted, a general-use prepaid card is functionally similar to a debit card but presents very limited credit risk for issuers and often more appeal for consumers than a traditional checking account. Despite these advantages, prepaid cards targeted to unbanked consumers remain an emerging application. Some of this is undoubtedly due to unfamiliarity with the cards, but McGrath also points to other factors that are slowing adoption. For example, no single prepaid card integrates the array of various financial services – from deposits of government benefits to payments of bills – that unbanked consumers might use. Therefore, multiple and distinct card-based solutions may be required in order for a single consumer to meet his financial services needs, thus increasing the cost and limiting the convenience of the instruments.

Considering the broader prepaid market, McGrath discusses other features that have the potential to increase the economic viability of general-use prepaid cards and add consumer value. Most important, in his view, is the need to extend the useful life of the card itself. Every application involves significant fixed costs to produce and distribute cards and to educate consumers about using them. As in traditional banking relationships, the economics of general-purpose prepaid cards improve over time as fixed acquisition and start-up costs are recovered.

For example, giving employees the option to retain the same payroll card when switching employers would likely increase the length of the customer relationship, particularly since many industries that have adopted payroll cards have high employee turnover. Going further, if consumers could load funds from different sources onto the same card, the resulting product could, according to McGrath, add value for the consumer and further strengthen the relationship with the card issuer or sponsor.

In addition to all of these considerations, a number of legal and technological impediments to general-use prepaid cards remain. McGrath sees many positive developments in these directions, such as the clarity and greater certainty created by the Federal Reserve's final ruling on Regulation E protections and payroll cards. He concludes that the further success of these cards will depend on innovations that can displace costly legacy systems and provide added value to consumers.

Prepaid Cards: Vulnerable to Money Laundering?

Stan Sienkiewicz

As James McGrath emphasized in his paper, prepaid cards are a significant payment innovation that can provide real value to businesses, financial institutions, and consumers. While the business case for these products is still developing, so is an understanding of the risks and the strategies for mitigating them. Some people have suggested that one risk for prepaid cards is that they may provide criminals with a new and attractive means to facilitate money laundering.

To learn more about this topic, the Payment Cards Center invited Patrice Motz, executive vice president, Premier Compliance Solutions,[1] and Paul Silverstein, executive vice president, Epoch Data Inc., to lead a PCC workshop. Since then, Payment Cards Center Senior Manager Stan Sienkiewicz has combined highlights from the workshop with his own research to produce a Discussion Paper entitled "Prepaid Cards: Vulnerable to Money Laundering?"[2] The paper investigates the techniques used to launder money, the ways prepaid cards could be used to facilitate this process, and the public and private responses to this threat.

Sienkiewicz argues that many features of prepaid cards can make them attractive for both legitimate and illicit uses. For example, reloadable prepaid cards can provide unbanked consumers with services previously available only to those with traditional banking accounts. At the same time, if unmonitored, reloadability could facilitate the movement of large quantities of illicit money. Thus, Sienkiewicz concludes that prepaid card products and features are neither inherently good nor bad – they are a financial services innovation with multiple possible applications. The question is: how can we promote the

[1] At the time of the workshop, Motz was Of Counsel at Bryan Cave LLP.

[2] Available at the Center's website at www.philadelphiafed.org/pcc/discussion/D2007FebPrepaidCardsandMoneyLaundering.pdf

beneficial uses of these cards while mitigating the risk that they may be used for money laundering?

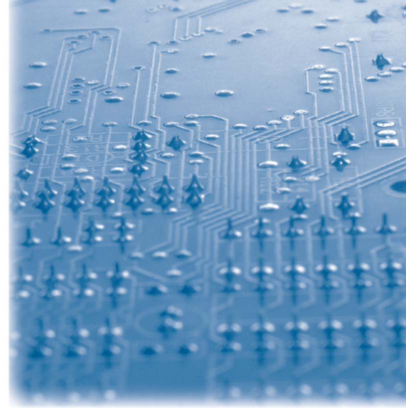
In examining this challenge, the paper compares the differences between combating traditional credit card fraud and the abuse of prepaid cards for money laundering. The fundamental difference is that traditional credit card fraud carries an observable financial loss that does not occur when prepaid cards are used for money laundering. In fact, the very purpose of money laundering is to use common payment vehicles to complete what look like legitimate transactions. As Motz and Silverstein emphasized, such transactions are difficult to detect and require different risk mitigation strategies than those used to combat credit card fraud.

This basic difference also reveals a critical problem. Issuing banks have a natural incentive to invest in efforts to reduce losses from credit card fraud. However, in a nonregulated market, neither the issuing bank nor its customers directly incur costs from processing money laundering transactions. Bankcard issuers not only face more complex detection challenges but also have fewer natural incentives to invest in efforts to reduce the risk. Because the direct costs associated with money laundering are borne by society, various laws and banking regulations have been enacted that impose penalties, and damage to an institution's reputation may result if it does not obey anti-money laundering laws. This paper traces the evolution of legal and regulatory responses to this challenge, including recent guidance proposed by bank regulators.

Sienkiewicz also details the industry's efforts to develop best practices and procedures aimed at mitigating prepaid cards' potential risk for use in money laundering. Given their central role in network-branded prepaid cards, VISA, MasterCard, and other network providers have established rules related to load limits, customer identification requirements, and other mitigation strategies to limit their card programs' vulnerability to money laundering.

At the card-issuing and program management level, businesses and banks are developing strategies to monitor card usage to detect patterns that indicate high-risk situations. These new technologies differ from traditional processes by identifying suspicious patterns, such as unusually frequent reloads or ATM use, behavior patterns not generally revealed by traditional fraud monitoring tools.

In the end, Sienkiewicz notes, there is no magic cure to completely eliminate the fraudulent use of prepaid cards for money laundering. At the same time, he concludes that federal regulation combined with industry efforts is going a long way toward reducing criminal activity and promoting a robust market for legitimate prepaid card programs.



Information Security, Data Breaches, and Protecting Cardholder Information: Facing Up to the Challenges

On September 13 and 14, 2006, the Payment Cards Center and the Electronic Funds Transfer Association (EFTA) hosted a conference entitled "Information Security, Data Breaches, and Protecting Cardholder Information: Facing Up to the Challenges."* The two-day event was designed to bring together a diverse set of stakeholders from the U.S. payments industry to discuss a framework to guide industry practices and inform public policy. In attendance were individuals from the major payment networks, card issuers, and banks, as well as consumer and merchant representatives and regulators.

The conference sessions addressed two fundamental questions. First, what can be done to more effectively ensure data security throughout the entire payments chain? Second, should a breach occur, what are the appropriate actions that should be taken to protect consumers and mitigate risks associated with any compromised data?

These issues have come to the fore because a variety of breaches from a number of firms have been widely publicized in the media. Consequently, they have become a topic of debate in Washington and state capitals across the country. Breaches threaten to undermine a fundamental underpinning of the payments industry: consumer confidence in the industry's ability to protect and safeguard sensitive customer information. A related discussion covered the concurrent need for hard data to critically evaluate the severity of the perceived threat and increase public understanding of the real nature of the threat. Intertwined were discussions as to how these issues might be reflected in the emerging legal and regulatory framework.

Charles I. Plosser, president of the Federal Reserve Bank of Philadelphia, opened the conference on Wednesday afternoon. He focused the audience's attention on how advances in technology and changes in regulation are altering the payments landscape. These changes are of interest to a variety of participants and stakeholders, including the Federal Reserve System. Plosser introduced Bruce J. Summers, director of Federal Reserve Information Technology (FRIT), whose keynote address elaborated on these implications.

Summers oversees the area of the Federal Reserve responsible for standards and information architecture used throughout the Federal Reserve System. He described how the fiduciary responsibilities of commercial banks and the Federal Reserve Banks have grown along with the advent of electronic banking and the increased reliance on information technology. Summers framed his discus-

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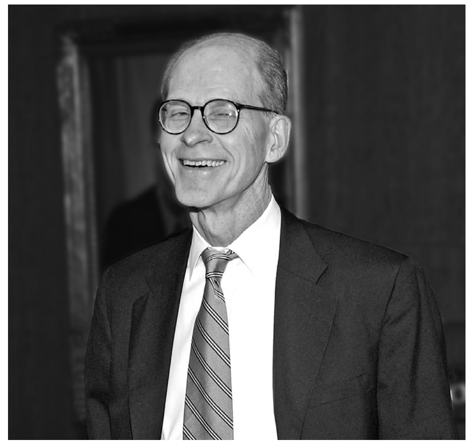
*** Available at the Center's website at www.philadelphiafed.org/pcc/conferences/2007/C2006SeptInfoSecuritySummary.pdf**

sion of security by examining best practices for safeguarding information security in three forms: information "at rest," that is, stored on a bank's computer; information "in transit," that is, on the move over networks; and "information traveling," that is, on a laptop or other movable storage device.

Summers's address was followed by a panel discussion, "Baseline Issues for Payments Participants: Setting the Stage," which incorporated perspectives of banks, merchants, networks, and technology providers. The panelists warned that consumer confidence is under siege because of real and perceived threats. At the same time, while fraud does exist, widespread misunderstanding of the practical issues is a comparable concern. Panelists suggested that these problems should be addressed concurrently, but they emphasized that these issues involve different solutions and different incentives.

H. Kurt Helwig, executive director of the Electronic Funds Transfer Association, opened the second day of the conference, emphasizing that security can serve as a key business differentiator. He observed that the companies attending the conference are well aware of security's importance and take the issue very seriously. Nevertheless, they also agree that they must do a better job communicating two things: what customers can do to help in the fight and what companies are doing internally to protect customer data.



Bruce Summers

Communicating this message is critical, he warned, because losing consumer confidence may threaten the underlying payments business itself.

These insights would be echoed throughout the day's sessions. In particular, Orson Swindle, senior policy advisor and chair of the Center for Information Policy Leadership at Hunton & Williams, a major international law firm, expanded on these themes with a keynote on the second morning of the conference: "The Sky Is Not Falling — But It Could." Swindle emphasized that the payments industry is predicated on the free interchange of information. This openness has brought about great innovation, but it increasingly presents unique risks. He called on conference participants to apply sound principles and solutions, many of which already exist, to ensure that customers' data are protected. Doing so, he argued, can offer a competitive advantage. Swindle's address was followed by a panel, "Ensuring Data Security," which delved into concrete technologies, solutions, and best practices that can help to address the problem. The panelists noted the increased sophistication of fraudsters who continue to challenge increasingly rigorous security standards. The industry finds itself playing a game of cat and mouse, but at the same time, the panelists argued there are viable practices and procedures that can provide a defensible strategy for protecting data.

Two afternoon panels concluded the conference. The first, "After a Breach: Protecting Customers and Consumers," focused on what to do when a breach occurs. Panelists emphasized that planning is critical; the most robust data security program must be accompanied by a well-defined action plan in the event the unthinkable occurs. Among the issues discussed were the role and shape of notifications, consumer sentiment and understanding, and the implications for payment providers.

The second panel, "Legal and Regulatory Perspectives," attempted to place the issues raised throughout the conference into the emerging legal and regulatory framework. The panelists contrasted state and federal initiatives, discussed trends in regulation and enforcement, and addressed the degree to which the regulatory environment has been a constructive partner in designing solutions.

To close, Peter Burns, director of the Payment Cards Center, summarized several of the conference's key themes. He noted that effective, industrywide solutions are imperative. These must be built around the correct incentives, should include the full range of stakeholders, and should encourage collaboration. A compelling business case exists for effective security; the challenge will be to develop and explain it. Burns noted that the Federal Reserve can contribute to this effort by convening the right people and encouraging a frank and open debate, as was evident during the discussions that took place over the course of the conference.

Conference participants Russ Schrader, Lynne Barr, Rick Fischer, and Bart Rubin

Supply- and Demand-Side Developments Influencing Growth in the Debit Market

Ron Congemi

On August 3, 2006, the Center hosted a workshop on developments in debit card payments led by Ronald Congemi, senior vice president of strategic industry relations for First Data Corporation. Given Congemi's long history working in ATM and PIN debit businesses, his presentation focused on the trends in PIN debit. Julia Cheney summarized Congemi's talk and the resulting group discussion in a paper entitled "Supply- and Demand-Side Developments Influencing Growth in the Debit Market."[1] Congemi's remarks drew on two recent surveys sponsored by First Data Corporation that examine supply- and demand-side dynamics in debit payments.

Supply Side

Congemi referenced a study by First Annapolis Consulting that estimated that locations that accept PIN debits at the point of sale have grown 80 percent since 2000. While this shows significant growth in locations that accept PIN debit, it is still only 64 percent of the locations that accept signature debits, but the gap is narrowing.

Congemi noted that recently PIN debit fees have been increasing, but they are still lower than the costs of signature debits. As these fees begin to converge, traditional incentives for merchants to favor PIN debit and for issuers to favor signature debit may lessen. In the end, Congemi believed that while acceptance fees may move toward the center, complete convergence will not occur as long as competitive debit networks remain; therefore, preferences among merchants and card issuers for PIN vs. signature debit will continue to exist.

Congemi also highlighted data from the Star/First Data POS Debit Issuer Cost study conducted on their behalf by First Annapolis Consulting. This study examined issuer costs involved in supporting PIN and signature debit card programs. This research showed that while signature debit card programs generally provide more revenue for banks, they also cost more to support. Congemi emphasized a key finding from Star/First Data's research: PIN debit programs are, on average, 47 percent less costly than similar-size signature debit programs. Congemi argued that as financial institutions focus more on payments-driven revenue, payments-driven costs must also garner more attention.

Demand Side

On the demand side, Congemi cited data from his company's 2005/2006 Consumer Payments Usage Survey.[2] As the rapid and dramatic increase in both

[1] Available at the Center's website at www.philadelphiafed.org/pcc/D2006OctSupplyDemandDebitMarket.pdf

signature and PIN debit suggests, many consumers find these products useful for conducting daily transactions. According to the survey results, the primary drivers of consumer payment choice are convenience, cost, and security.

Congemi noted that the increased use of "cash back" at the POS as an alternative to more costly ATM transactions is another significant factor influencing consumer adoption of PIN debit. PIN-based cash-back transactions began gaining popularity at about the same time that many banks began instituting "foreign transaction" surcharge fees for ATM withdrawals by account holders from other banks. Congemi noted that while cost factors encourage consumers to get cash back at the point of sale, the study also found that many consumers also place a high value on the convenience associated with the cash-back feature.

Studies conducted by the Federal Reserve and others have documented for some time that consumers are increasingly finding debit cards a convenient alternative to checks. More recently, Congemi explained, debit has also been displacing cash transactions, especially as traditional cash-only merchants begin deploying electronic terminals at their sales locations.

Despite these positive developments, Congemi warned that, left unchecked, data breaches and identity theft, two growing risks in the payments arena, could undermine consumer confidence in debit and other electronic payments. Should this occur and consumers begin to abandon electronic payment alternatives, the direct and indirect costs to the industry and society as a whole could be substantial. He urged that all in the industry take an active role in managing these risks and educating consumers.

Conclusion

Congemi's presentation emphasized that the combination of supply- and demand-side developments has propelled the growth of PIN debit in recent years. Acknowledging his obvious affinity for PIN debit, he closed by noting that issuers should not necessarily view signature and PIN debit in "either/or" terms: A critical finding of the study was that debit cardholders who use both PIN and signature debit make more transactions than those who use only one of the two formats. The very strong implication is that banks that promote both forms of debit will enjoy greater transaction volumes and customer loyalty.

[2] For more information, see the press release on First Data's website: http://ir.firstdatacorp.com/news/releasedetail.cfm?ReleaseID=205889

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The Payment Cards Center was established to serve as a source of knowledge and expertise on consumer credit and payments; this includes the study of credit cards, debit cards, prepaid cards, smart cards, and similar payment vehicles. Consumers' and businesses' evolving use of electronic payments to effect transactions in the economy has potential implications for the structure of the financial system, for the way that monetary policy affects the economy, and for the efficiency of the payments system.