



PAYMENT CARDS
Center

FEDERAL RESERVE BANK OF PHILADELPHIA



Update

A newsletter published by the Payment Cards Center, providing meaningful insights into developments in the payment card industry

From the Director *Peter Burns, Vice President & Director*

Summer 2005

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

The Payment Cards Center was established at the Federal Reserve Bank of Philadelphia to develop insights and to communicate about issues relevant to this rapidly expanding area of consumer payments. The Center's goal is to inform debate on current issues facing the industry and policymakers.

As might be expected in this dynamic environment, there is no shortage of relevant topics and new issues are continually emerging. The Center's business model emphasizes responsiveness to market developments and a reliance on leveraging the expertise of partners in order to prioritize and ultimately address these issues. As we will describe later, we build on expertise within the Bank and the broader Federal Reserve System, but importantly, we also turn to external partnerships for counsel and assistance in developing our agenda.

In reviewing recent Center activities in this issue of *Update*, we want to both acknowledge the role of partnerships and highlight several key research themes being addressed.

The first of these topics deals with our work in exploring the rapid expansion and varied applications of prepaid cards. This "pay now-spend later" payment card model has become especially popular in the gift-card segment, rapidly replacing traditional paper gift certificates. More recently, payments innovators have been developing a wide range of applications for these cards, from payroll check substitutes to government welfare payments. The Center's first focused analysis of this new payment vehicle took place in the spring of 2004 with the conference "Prepaid Cards: How Do They Function? How Are They Regulated?" In structuring this event, we relied heavily on input from state and federal regulators, retail merchants, banks, and specialized processors to both inform the discussion and help bring emerging issues to light. The resulting conference summary quickly became one of the more frequently downloaded documents on our web site.

Mission Statement

The mission of the Payment Cards Center is to provide meaningful insights into developments in the payment card industry that are of interest not only to the Federal Reserve but also to the industry, other businesses, academia, policy-makers, and the public at large. The Center will carry out its mission through an agenda of research and analysis as well as forums and conferences that will encourage a dialogue that includes industry, academic, and public-sector perspectives.

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As discussed later in *Update*, our investigation of the prepaid world has led us to examine the unique infrastructure associated with prepaid cards and, more recently, consider applications to the unbanked and underbanked consumer segments. Working with other Federal Reserve colleagues, we have hosted and participated in workshops and seminars exploring various aspects of these issues. In July, we will sponsor a major conference on the topic, “Payment Cards and the Unbanked: Prospects and Challenges.” This conference will not only bring together banking and nonbanking industry innovators in this market but it will also garner perspectives from the community development areas within the Federal Reserve System as well as not-for-profit community groups that work within this market segment.

On a different tack, the Center’s analysts have been examining another contemporary issue that is particularly relevant to the credit card business: consumer protections and regulations. The evolution of risk-based pricing and other changes in terms and conditions associated with credit card use was the subject of an earlier Payment Cards Center paper, “Credit Card Pricing Developments and Their Disclosure.” Among the issues raised in the paper was the challenge to clear disclosures posed by the increased complexity of credit card pricing, fees, and computational methodologies.

Earlier this year, the subject was further addressed in an internal workshop featuring Professor Mark Budnitz from Georgia State

University College of Law. More recently, Payment Cards Center analyst Mark Furletti and Stephen Smith, of the Bank’s Legal Department, collaborated on a series of papers discussing protections available to consumers as provided by federal and state regulation, association and network rules, and individual bank practices. The Center recently convened a group of legal scholars, industry attorneys, regulators, and business practitioners in a roundtable discussion of “Federal Consumer Protection Regulation: Disclosures and Beyond.”

Also in this issue of *Update*, we introduce our industry advisors. As noted earlier, we rely heavily on the expertise of external constituencies from academia, consumer interest groups, and the industry to help guide the Center’s agenda. Among the vehicles we use to incorporate this expertise are the semi-annual meetings we hold with industry advisors. These informal discussions provide important input into our understanding of current and emerging issues confronting the broader consumer payments industry.

I hope you will enjoy reading this issue of *Update*, and I thank you for your interest and support. As always, I welcome your thoughts as to how the Center can better serve the needs of market participants and other interested parties.

Payment Cards Center Studies Prepaid Cards



Prepaid cards are one of the fastest growing segments of the payment cards industry. This rapidly growing and increasingly dynamic payments sector has become an area of active inquiry within the Payment Cards Center. What follows is a brief review of several recent research initiatives that illustrate the evolving scope of our interests and our partnerships with industry representatives, policymakers, and researchers.

In June 2004, after a year or so of independent analysis of the subject, the Payment Cards Center hosted a conference on prepaid cards titled “Prepaid Cards: How Do They Function? How Are They Regulated?” This event brought together a wide range of expert perspectives related to developments and challenges facing this new payments category. The conference discussion confirmed the rapid growth of prepaid payment volumes and highlighted a number of emerging applications. As is the case with most payment innovations, applicable regulation in the prepaid segment was seen to be lagging market developments. While noting the need for greater clarity, conference participants also cautioned policymakers that care must be taken so as not to stifle innovation.

Following this event, the Center invited Gary Palmer, chief operating officer and co-founder of WildCard Systems, to lead a workshop discussing the developing market for prepaid card products and the infrastructure required to support the breadth of emerging business models. WildCard Systems plays an important role as a transaction processor supporting various types of prepaid programs, and Palmer used his many customer-based experiences to review the similarities and differences among emerging prepaid card applications. In

his analysis, he focused on how these variations affect the operational structure, the economics, and the regulation of these programs.

Palmer highlighted the differences between prepaid operating environments and traditional credit and debit card programs. Specifically, he focused on the roles of “distributors” and “sponsors” as keys to executing many of the new prepaid card programs. Essentially, these roles facilitate linkages between the bank card issuer and the end-user in cases where the issuer may not have a direct relationship with that consumer. For example, prepaid payroll card programs often incorporate the participation of an employer to sponsor the program with its employees and a payroll processor to interface with the bank card issuer, the employer, and the employee-recipients of the cards. In another example, Palmer described a prepaid travel program where a bank serves as the issuer of a bankcard association branded prepaid card, but the cards themselves are sold and distributed through the offices of an automobile travel association. In a more general sense,



Sherrie L.W. Rhine and Sabrina Su

Palmer emphasized that the role of third-party partners will vary depending on the program's underlying business proposition. This prepaid "value chain" creates processing and customer service requirements unique to the particular prepaid environment, and it is in this area where WildCard and other specialized processors play important roles. For more on this topic, see the Center's discussion paper, "Payment Cards: A Study in Diversity," available on our web site.

The initial 2004 prepaid conference and Gary Palmer's insights led to another emerging thread related to the use of prepaid card technology: the application to the unbanked and underbanked segments of our society. A number of new prepaid card applications are being developed to facilitate payment and other financial transaction services to this market segment. Recognition of this fact led us to work being done on this topic by colleagues from the New York Fed. Following several informal meetings on the issue, two researchers, Sherrie L.W. Rhine and Sabrina Su, visited the Bank and led a workshop focusing on their work. Highlights from that event have been published as a Center discussion paper, "The Cost Effectiveness of Stored-Value Products for Unbanked Consumers."

These various initiatives have led to our organizing a major conference on the subject later this summer that will bring together a wide range of interested parties to consider how prepaid and other forms of electronic payments might be suited to serving the needs of unbanked and underbanked consumers. The questions to be examined over the course of the conference

will focus on this particular market segment and will include discussion of such applications as payroll and remittance cards and the role of merchants and other nonbank entities in serving these consumers' financial needs. In addition, the conference will consider whether electronic payment mechanisms such as prepaid cards can replace higher cost financial services available to this population or whether these products might more beneficially act as transitional steps toward more traditional banking relationships.

The conference will open with a keynote address by Professor Michael S. Barr, of the University of Michigan Law School, who will set the stage by reviewing his research on bring-

A number of new prepaid card applications are being developed to facilitate payment and other financial transaction services to [the unbanked].

ing low-income Americans into the financial mainstream. The conference will include panel discussions to address relevant product, market, and regulatory issues associated with electronic payments and the unbanked. The conference will especially benefit from the variety of diverse perspectives, including those of banks, credit reporting agencies, nonbank processors and payments innovators, merchants, economists, policymakers, and community development organizations. Following the event, we will publish conference proceedings to highlight key issues discussed and those insights gained during the conference. ■

Prepaid Applications in Government Benefit Payments

September 20 – 21, 2004

Prepaid cards and other electronic payment innovations have found a particular niche in facilitating government payments and benefits. As of June 22, 2004, the U.S. Department of Agriculture announced that all federal food stamp payments had been successfully converted from paper scrip to plastic cards. The payment technology used to implement this sea change in the distribution of food stamps is known as electronic benefits transfer, or EBT. Many of the beneficiaries of these programs fall into the category of unbanked or underbanked consumers. Some people have argued that these consumers' growing familiarity with electronic payments may be helping to spur the adoption of prepaid and other card-based programs designed for and marketed to the underbanked.

In an effort to examine these developments and better understand emerging payment applications, the Payment Cards Center collaborated with the Bank's Community Affairs Department and the EBT Industry Council of the Electronic

Funds Transfer Association to host a day-and-a-half-long conference on the subject. In addition to the EBT food stamp programs, conference participants devoted attention to several emerging applications. This next generation of EBT, dubbed "Tier II," will incorporate technologies associated with PIN debit, smart cards, and prepaid cards to facilitate a variety of new EBT benefits payments. Among the programs discussed were Temporary Assistance to Needy Families, child-care assistance, child-support payments, and the Women, Infants, and Children (WIC) program; each of these programs has its own set of implementation challenges.

Highlights from these discussions can be found on the Center's web site as a conference summary, "Assessing the Impact of Electronic Benefits Transfer on America's Communities and the U.S. Payments System."



Peter Relich, MAXIMUS Intelligent Technologies; Bob Bucceri, Chaddsford Planning Associates; Jim Brown, University of Wisconsin; Liz French, eFunds Corporation; Bard Shollenberger, ACS Children and Family Services



A Focus on Consumer Protections and Regulations

As consumer payments have continued to migrate toward electronic applications, the Payment Cards Center has studied the payment choices consumers make and how these choices can determine the protections available to them. This subject has arisen either directly or tangentially in a variety of PCC-sponsored conferences and in discussions with industry leaders and policymakers.

For example, the recent study of the prepaid card market made clear the contrast between the regulatory uncertainties in the prepaid market and the regulatory environment for credit cards, where consumer protections are addressed under Regulation Z, and for debit cards, where similar protections are addressed under Regulation E. As consumer protection issues continued to arise during Center-sponsored activities, several questions were raised, including: How do consumer protections differ across payment card

Professor Budnitz, the author of several books and a number of articles on consumer payments, described the ways in which the breadth of payment products available to consumers and the disparate laws governing these products may lead to consumer confusion.

To make his case, Budnitz highlighted several developments in payments and described the potential of each to confound consumers. One example focused on the increased use of new electronic check technology and the passage of the Check Clearing for the 21st Century Act (Check 21). Budnitz noted that checks can now be cleared and settled either in their original paper form or in one of several electronic forms. Different laws with varying consumer protection provisions will be triggered by this payment decision. For example, a transaction initiated with a paper check can be processed as a paper check, converted to an electronic funds

transfer, or truncated in the form of a substitute check. Depending on which of those avenues the holder of the check chooses, the transaction is governed, respectively,

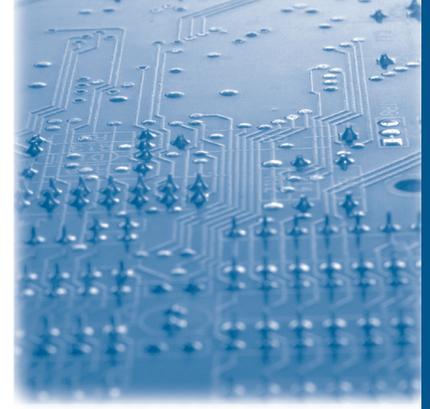
by the Uniform Commercial Code (UCC) and Regulation CC (Reg CC), Regulation E and the rules of the National Automated Clearing House Association (NACHA), or by three different laws: the UCC, Reg CC, and Check 21. In his summation, Budnitz asserted that “this patchwork creates an information asymmetry between banks and consumers, leading consumers to make ill-informed decisions about which payment product to use for a given transaction.”

At the end of the day, Budnitz advocated uniform consumer protection standards across

Is the traditional focus on disclosure and transparency...sufficient for today's increasingly complex web of payment alternatives?

applications? Do consumers understand these differences? Can current consumer protection regulation be extended to newer payment innovations? Is the traditional focus on disclosure and transparency in most federal consumer protection regulation sufficient for today's increasingly complex web of payment alternatives and pricing structures?

Earlier this year, the Center invited Professor Mark Budnitz, Georgia State University School of Law, to lead a workshop discussing his views on current consumer payment protections.



payment products to address disclosure, error, and fraud protections. He argued that these protections should be based in federal law, but at the same time, he asserted that nonconflicting consumer protections legislated by states should also be supported. For more detail regarding the discussion from this workshop, see the Center's discussion paper titled "Payment System Regulation and How It Causes Consumer Confusion."

Concurrently, PCC Industry Specialist Mark Furlletti and Stephen Smith, of the Bank's Legal Department, began a detailed study of the protections available to consumers in dealing with three payments problems: error resolution, third-party fraud, and merchant disputes. The analysis focused on four types of electronic payments: credit cards, debit cards, ACH e-checks, and prepaid cards. The authors examined protections afforded by federal and state laws, the applicable rules of networks and associations, and finally individual bank practices. While the review of regulatory protections is in itself instructive, an especially important contribution of this research lies in the knowledge gained from dozens of interviews with private-sector networks and many individual bankers. In these conversations, the authors were able to document the role that market-based forces play in complementing and, often, working to harmonize the disparate body of federal or state regulation. In their work, the authors describe a consumer protection environment for payments that is complex, layered, and generally fragmented.

This research is presented in a series of three papers. The first paper focuses on protection related to the use of relatively mature credit and debit card instruments,

and the second deals with newer applications associated with ACH e-checks and prepaid cards. The third paper, which is forthcoming, considers the policy implications associated with the analysis of consumer protections and suggests areas for future inquiry.

Most recently, the Center held a one-day symposium, entitled "Federal Consumer Protection Regulation: Disclosures and Beyond," to consider these and other related issues. This event was structured as a two-part roundtable discussion intended to explore the role of disclosure regulation in providing effective consumer protections in the credit card industry. The second part of the discussion examined supplementary or alternative protection options, such as advisory letters, enforcement actions, and the role of market discipline. The symposium greatly benefited from the variety of expert perspectives provided by industry practitioners, legal scholars, economists, regulators, and consumer advocates. As might be expected in such a complex arena, consensus on many issues was an elusive goal. Nevertheless, a number of important insights and critical issues were effectively identified and debated. Highlights from the day's discussion will be documented in a forthcoming Payment Cards Center publication. U



Left to Right: Rick Fischer, Morrison & Foerster; Clint Walker, Juniper Bank; Travis Plunkett, Consumer Federation of America; Ralph Rohner, Catholic University; Scott Hildebrand, Capital One; Tom Durkin, Board of Governors.

Payment Cards Center & Wharton Conference on Validation of Consumer Credit Risk Models

On November 19, 2004, the Payment Cards Center and the Wharton School's Financial Institutions Center hosted a "Forum on Validation of Consumer Credit Risk Models." This one-day event brought together experts from industry, academia, and the policy community to discuss challenges in validating credit scoring and loss forecasting models.

Retail lenders, and particularly credit card lenders, use statistical models extensively to guide a wide range of decision processes associated with loan origination, account management, and portfolio performance analysis. The adoption of sophisticated credit scoring models has increased the speed, precision, and efficiency of underwriting decisions, facilitated more granular risk-based pricing, and led to the broadening of consumer access to credit. Banks also use models to forecast aggregate losses, an important factor in defining capital requirements. The new Basel Capital Accord will soon allow banks to satisfy regulatory capital requirements based on internal models, which one observer stressed will essentially "raise the bar" when it comes to related validation processes.

While the many advances in modeling technologies have facilitated the growth of and enhanced the efficiency of the credit card industry, the pervasive use of these tools has increased the importance of validation processes and procedures. Very simply, the validation process is designed to answer the question: How do we determine whether our credit risk models are working as intended?

The Center chose to focus discussion on credit scoring and loss forecasting models, in part, because they are arguably the most important and commonly used statistical tools in

retail banking. At the same time, the conference organizers were eager to gain insights into the theoretical linkages between these two processes. While theoretical arguments are often made about the linkages, in practice the industry tends to treat them as distinct tools. Very basically, a credit scoring model predicts how likely it is that an individual borrower will default, a prediction that intuitively is an essential element in developing a forecast of future losses. During the conference, Federal Reserve Bank of Philadelphia Visiting Scholar Nick Souleles, of the Wharton School, argued that while there are substantial challenges in bringing these approaches closer together, there are also real benefits to be gained.

In addition to this general topic, the conference summary, which is available on our web site, highlights several other key areas of the day's discussion. Among these were the discussions about the questions: What are appropriate metrics for evaluating a model's performance? What other validation criteria are important? Can model performance be enhanced by incorporating macroeconomic and other market variables? While the intent of the conference was not to resolve these issues, the conference did provide important insights and furnish directions for new research. In a more general sense, participants agreed that model use and validation is a management process where "art" must be considered along with "science" to achieve optimal outcomes. ■



Nick Souleles

Recent Publications

The Payment Cards Center's commitment to industry analysis and research is fulfilled through its support of consumer payments- and payment cards-related papers written by Center staff, visiting scholars, researchers affiliated with the Center, and economists in the Bank's Research Department. These papers can take several forms: Discussion Papers, Conference Summaries, Working Papers, or Business Review articles. Discussion papers and conference summaries are written by Center staff for a wide audience, including industry professionals, regulators, consumers, and academics, and can be based on PCC-sponsored conferences or workshops or on original staff research. Working Papers are intended for the professional researcher and are written by Center visiting scholars, economists in the Bank's Research Department, and other economists affiliated with the Center. The Business Review includes less technical articles written by economists in the Bank's Research Department.

Recently published papers are available in pdf format on the Center's web site. A chronological listing of papers posted to the site in 2003, 2004, and 2005 follows.

2003

- 03-01 Mandatory Arbitration Clauses in the Credit Card Industry
- 03-02 Credit Card Pricing Developments and Their Disclosure
- 03-03 An Overview of Consumer Data and Credit Reporting
- 03-04 What Is the Value of Recourse to Asset Backed Securities? A Clinical Study of Credit Card Banks
- 03-05 Credit Card Securitization and Regulatory Arbitrage
- 03-06 Voting with Your Feet: Consumers' Problems with Credit Cards and Exit Behaviors
- 03-07 Financial Privacy: Perspectives from the Payment Cards Industry
- 03-08 An Introduction to the Economics of Payment Card Networks
- 03-09 Theory of Credit Card Networks: A Survey of the Literature
- 03-10 Innovations at the Point of Sale
- 03-11 Antitrust Issues in Payment Card Networks: Can They Do That? Should We Let Them?
- 03-12 After the Hype: e-Commerce Payments Grow Up
- 03-13 Consumer Credit Counseling: Credit Card Issuers' Perspectives
- 03-14 Cost Savings from Electronic Payments and ATMs in Europe
- 03-15 Measuring Credit Card Industry Charge-offs: A Review of Sources and Methods

- 03-16 Consumer Bankruptcy: How Unsecured Lenders Fare
- 03-17 Identity Theft: A Pernicious and Costly Fraud

2004

- 04-01 Prepaid Card Markets and Regulation
- 04-02 The Debate Over the National Bank Act and the Preemption of State Efforts to Regulate Credit Cards
- 04-03 Identity Theft: Where Do We Go From Here?
- 04-04 Prepaid Cards: How Do They Function? How Are They Regulated?
- 04-05 Payment System Regulation and How It Causes Consumer Confusion

2005

- 05-01 The Laws, Regulations, and Industry Practices That Protect Consumers Who Use Electronic Payment Systems: Credit and Debit Cards (first in a three-part series)
- 05-02 Assessing the Impact of Electronic Benefits Transfer
- 05-03 Prepaid Card Models: A Study in Diversity
- 05-04 The Laws, Regulations, and Industry Practices That Protect Consumers Who Use Electronic Payment Systems: ACH E-Checks & Prepaid Cards (second in a three-part series)

Payment Cards Center Convenes Industry Advisors

From its inception nearly five years ago, the Payment Cards Center has followed a policy of reaching out to the broad set of stakeholders in the consumer payments and credit arena. We greatly value the interactive dialogue and resulting input as we work to build a program agenda that reflects the range of relevant perspectives. This operating principle is central to the Center's mission "to provide meaningful insights into developments in the payment cards industry that are relevant not only to the Federal Reserve, but also to the industry, other businesses, academia, policymakers, and the public at large."

Among these constituencies, industry participants provide special value in ensuring that the Center's activities are grounded in market realities. In addition to regular dialogue with industry experts at our conferences and workshops, the Center also convenes semi-annual meetings with a group of industry advisors. In addition to seeking advice and counsel on our ongoing agenda, a good portion of these meetings involves an informal discussion of what our advisors judge to be emerging issues that might affect the industry and the broader con-

sumer finance sector of the banking system. The insights gained from these discussions provide invaluable input as we consider directions for future initiatives.

Importantly, our advisors represent a range of industry perspectives, and individually, they bring a broad base of business experience and expertise to the table. In addition to executives from major credit card issuers, our advisors include leaders in payment services to community banks, debit and ATM processing, merchant acquiring, and payments consultancy. **U**



Attendees at our April 22 industry advisors meeting include: (Front): Alex Mogielnicki, JP Morgan Chase; John Carey, MBNA; Peter Schnall, Capital One; (Rear): Paul Weston, TCM Bank; T. Jack Williams, PaymentCard Marketing; Richard Vague, Juniper Bank; Ronald Congemi, First Data Corp. Not pictured: Richard Srednicki, JP Morgan Chase; Michael Urkowitz, Deloitte Consulting; Kenneth Vecchione, MBNA

PCC's Furletti Receives Writing Prize

Mark Furletti, an industry specialist in the Payment Cards Center, recently received an award from the American College of Consumer Financial Services Lawyers. The college, which holds an annual writing competition to recognize the best scholarly work in consumer financial services, selected Mark's paper "The Debate Over the National Bank Act and the Preemption of State Efforts to Regulate Credit Cards" for its 2004 award.



Mark Furletti

The award was presented to Mark on April 2 at a dinner held in conjunction with the Banking Law Section meeting of the American Bar Association.

Mark is currently a law student at Temple University. His paper, which was also published in the *Temple Law Review*, is available on the Payment Cards Center's web site. 

PCC Speaking Engagements



Stan Sienkiewicz

Sharing information about developments in the payment cards industry is at the heart of the Center's mission. In addition to publishing their own research findings and regularly convening conferences and workshops, PCC staff members speak at industry conferences and roundtables, academic seminars, and general community forums.

One such recent contribution was Stan Sienkiewicz's appearance at a local chapter meeting of the Electronic Payments Network to discuss "Migration to Electronic Payments." This meeting of accredited ACH professionals served to deepen members' understanding of the role of ACH and other electronic payments in the broader shift of consumer payments away from traditional check usage. 

2005 Conference Schedule

June 10, 2005 - "Federal Consumer Protection Regulation: Disclosures and Beyond"

This one-day symposium on consumer protection brought together legal scholars, federal banking regulators, and industry experts from the largest credit card issuers in the U.S. to discuss standardized credit card disclosures and other means of protecting consumers.

June 20-21, 2005 - "Risky Business: Managing Electronic Payments in the 21st Century"

This conference, co-sponsored with the Electronic Funds Transfer Association (EFTA), explored strategic issues related to risk management and fraud prevention in our increasingly electronic payments environment.

July 13-14, 2005 - "Payment Cards and the Unbanked: Prospects and Challenges"

This Center-sponsored conference was structured to examine how prepaid cards and other electronic payment vehicles are adding value to the unbanked and underserved segments of our society.

September 29-30, 2005 - "Recent Developments in Consumer Credit and Payments"

Co-sponsored with the Bank's Research Department, this bi-annual conference will include a range of current papers written by leading academic and Federal Reserve researchers working in the field of consumer credit and payments.



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The Payment Cards Center was established to serve as a source of knowledge and expertise on this important segment of the financial system, which includes credit cards, debit cards, smart cards, stored-value cards, and similar payment vehicles. Consumers' and businesses' evolving use of various types of payment cards 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.

"The Philadelphia Reserve Bank will be broadly recognized as an important center of central bank knowledge and capability."

*Anthony M. Santomero
President*