

# **THE NEW LANDSCAPE FOR CONSUMER CREDIT AND PAYMENTS**



***December 2-3, 2010  
Boehne Auditorium***



FEDERAL RESERVE BANK OF PHILADELPHIA



# MISSION

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 System 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.

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The Federal Reserve Bank of Philadelphia's Payment Cards Center is celebrating its 10th anniversary this year. The New Landscape for Consumer Credit and Payments marks this milestone. The conference will examine crucial research and policy questions related to the markets for consumer credit and payments.

Through panel discussions and open dialogue with invited participants from the financial services industry, research institutions, nonprofit organizations, and regulatory agencies, the conference will provide a forum to develop a better understanding of the effects of the recent financial crisis on consumers' use of credit and payment instruments, including the industry's response and the lessons learned for improving the design of financial products and services.

Another goal of the conference is to explore the ability of rigorous academic research to inform public policy decisions using promising new techniques and data sources. Panelists will discuss the ways in which more fruitful interaction between researchers and financial services providers can contribute to our understanding of markets.

Looking toward the future, conference participants will outline the essential policy and research questions to be addressed, the evolving role of regulators, and the tools policymakers will need to improve oversight of the markets for consumer credit and payments.



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Consumer Credit and Payments in Pictures: \_\_\_\_\_ 16-18  
Use, Availability, and Innovation

Timeline of Events \_\_\_\_\_ 19-23



# AGENDA

**Thursday, December 2, 2010**

*Boehne Auditorium*

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**1:00 p.m.      Registration**

**2:00 p.m.      Keynote Address**

**Elizabeth Duke**, Board of Governors of the Federal Reserve System

**2:45 p.m.      Opening Remarks**

**Robert Hunt**, Federal Reserve Bank of Philadelphia

**3:15 p.m.      Break**

**3:30 p.m.      The Current Environment**

This panel will examine the effects of the recession and recent changes in regulation from the perspective of consumers, industry participants, and policymakers.

**Moderator:**

**William Lang**, Federal Reserve Bank of Philadelphia

**Panelists:**

**Mark Zandi**, Moody's Analytics

**Glenn Canner**, Federal Reserve Board

**Kevin Rhein**, Wells Fargo & Company

**Raj Date**, U.S. Department of the Treasury

**5:00 p.m.      Anniversary Ceremony**

**5:15 p.m.      Reception**

*Eastburn Court*

**Friday, December 3, 2010**  
*Boehne Auditorium*

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**8:00 a.m. Breakfast**

**8:30 a.m. Keynote Address**  
**Peter Tufano**, Harvard Business School

**9:30 a.m. Break**

**9:45 a.m. Improving Research and Data for Policymaking**  
This panel will explore the use of new data, techniques, and theory to better inform public policy. Panelists will also discuss the importance of collaboration among researchers, industry participants, and policymakers.

**Moderator:**  
**Loretta Mester**, Federal Reserve Bank of Philadelphia

**Panelists:**  
**Robert Avery**, Federal Reserve Board  
**Oliver Ireland**, Morrison & Foerster  
**Jonathan Zinman**, Dartmouth College  
**Satyajit Chatterjee**, Federal Reserve Bank of Philadelphia

**11:15 a.m. Break**

**11:30 a.m. Priorities for the Future**  
Panelists will offer their views about the outlook for unsecured credit, the types of products offered to consumers, the industrial organization of payment networks, and the role regulators should play and the tools they will need.

**Moderator:**  
**Robert Hunt**, Federal Reserve Bank of Philadelphia

**Panelists:**  
**Marianne Verdier**, Université Paris Ouest Nanterre  
**Peter Schnall**, Capital One  
**Mark Olson**, Treliant Risk Advisors

**1:00 p.m. Adjournment**

# SPEAKERS' BIOGRAPHIES



**Robert B. Avery** is a senior economist in the Division of Research and Statistics at the Board of Governors of the Federal Reserve System. He previously served as a professor at Cornell University.

Avery's work at the Federal Reserve focuses on supervisory issues related to community affairs and bank supervision. He has co-authored numerous recent studies in these areas, including the Federal Reserve's Congressional Report on disparate impact in credit scoring. He also designed the Federal Reserve's fair lending HMDA screening program as well as the Fed's loan sampling system for small-bank safety and soundness examinations.

Avery holds a bachelor's degree from the University of Pennsylvania and a Ph.D. from the University of Wisconsin.



**Glenn B. Canner** is a senior advisor in the Division of Research and Statistics of the Board of Governors of the Federal Reserve System. Canner joined the Board of Governors in 1979 as an economist and was promoted to his present position in 1996.

His current areas of specialization are home mortgage and consumer lending, with a strong focus on fair lending laws and community reinvestment issues. He also oversees the activity of the Board economists working in these areas.

During his more than 20-year tenure, Canner has written and co-written numerous articles in the field of consumer finance and community lending. Canner holds a bachelor's degree from Lake Forest College and earned master's and doctoral degrees in economics from Brown University.



**Satyajit Chatterjee** is a senior economic advisor and economist in the Research Department of the Federal Reserve Bank of Philadelphia. He started at the Bank in 1991 as a senior economist. Before that, he was an assistant professor at the University of Iowa. He has also been a visiting scholar at the Wharton School of the University of Pennsylvania and the University of Texas at Austin.

Chatterjee has published numerous articles in economic journals, including *Econometrica*, the *American Economic Review*, the *Journal of Political Economy*, the *Review of Economic Studies*, the *Journal of Public Economics*, the *Journal of Monetary Economics*, and the *Journal of Urban Economics*. He has served as an associate editor of *Macroeconomic Dynamics* and a reviewer for the National Science Foundation. His research interests cover macroeconomics, monetary economics, the economics of consumer credit and bankruptcy, and some aspects of urban economics.

Chatterjee holds a bachelor of arts degree in economics (with honors) from the University of Delhi, India, a master's degree from the Delhi School of Economics, and a Ph.D. in economics from the University of Rochester.



**Raj Date** is senior advisor to Professor Elizabeth Warren at the U.S. Department of the Treasury. Prior to joining Treasury, Date was chairman and executive director of the Cambridge Winter Center for Financial Institutions Policy, from its founding through September 2010.

Date's research with Cambridge Winter focused principally on consumer and small business finance, community banking, and "shadow banks," including investment banks, hedge funds, and finance companies.

Until joining Cambridge Winter, he was a managing director in the financial institutions group at Deutsche Bank Securities, where he led the firm's investment banking coverage for the largest U.S.-based banks and thrifts. His client work focused on calibrating credit deterioration, evaluating capital-raising alternatives, and generating liquidity. Before that, Date was senior vice president for corporate strategy and development at Capital One Financial, where he led M&A development efforts across the U.S. banking and specialty finance markets. He began his business career in the financial institutions practice of the consulting firm McKinsey & Company. He has also served as an attorney, in both private and government practice.

Date is a graduate of the University of California at Berkeley with highest honors and the Harvard Law School magna cum laude.



**Elizabeth A. Duke** is a member of the Board of Governors of the Federal Reserve System. She took office on August 5, 2008, to fill an unexpired term ending January 31, 2012.

Prior to her appointment to the Board, Duke was senior executive vice president and chief operating officer of TowneBank, a Virginia-based community bank. Before that, she was an executive vice president at Wachovia Bank and an executive vice president at SouthTrust Bank. Earlier in her career, Duke was president and chief executive officer of Bank of Tidewater, based in Virginia Beach, Virginia.

Duke served on the board of directors of the American Bankers Association from 1999 to 2006 and as its chairman from 2004 to 2005. She also served on the board of directors and as president of the Virginia Bankers Association. From 1998 to 2000, Duke served on the board of directors of the Federal Reserve Bank of Richmond. She has also served as a member of the Fannie Mae National Advisory Council.

Duke received a bachelor's degree from the University of North Carolina at Chapel Hill and an M.B.A. from Old Dominion University. She is also a graduate of the Stonier Graduate School of Banking and the Virginia Bankers School of Bank Management.



**Robert M. Hunt** is an assistant vice president at the Federal Reserve Bank of Philadelphia. He became director of the Bank's Payment Cards Center in April 2009. Prior to this appointment, he was a senior economist in the Bank's Research Department.

Hunt's research has focused on consumer payments, consumer finance, and the economics of innovation. His published research includes studies of the dynamics of the consumer credit reporting industry, credit counseling organizations, the collections industry, and antitrust issues in consumer payment networks. He has also published papers on topics in economic geography and intellectual property.

Before joining the Bank in 1998, Hunt worked for the U.S. Congressional Budget Office. Prior to attending graduate school, he was an industry risk analyst for Bank One, Indianapolis.

Hunt received a Ph.D. in economics from the University of Pennsylvania in 1996 and a B.A. in political science and economics from Butler University in 1986.



**Oliver Ireland** is a partner in the Financial Services Practice Group in Morrison & Foerster's Washington, D.C. office.

Ireland's practice focuses primarily on retail financial services, including electronic commerce; compliance with Federal Reserve regulations, including Regulations Z and E; and compliance with the Gramm-Leach-Bliley Act privacy provisions, the Fair Credit Reporting Act, E-SIGN, the U.S. PATRIOT Act, and telemarketing rules. His practice also includes all types of payment transactions, including compliance with NACHA rules, bank regulatory issues, and other aspects of financial markets, such as margin lending.

Prior to joining Morrison & Foerster, Ireland served as associate general counsel of the Board of Governors of the Federal Reserve System, as vice president and associate general counsel of the Federal Reserve Bank of Chicago, and as an attorney for the Federal Reserve Bank of Boston. In his capacity as associate general counsel of the Board of Governors of the Federal Reserve System, Ireland was responsible for drafting or interpreting numerous Federal Reserve Board regulations, including the Gramm-Leach-Bliley privacy rules, rules implementing the Expedited Funds Availability Act, rules on margin requirements, money laundering, capital requirements, reserves, and interest on deposits.

Ireland received a B.A. from Yale University in 1970 and a J.D. from the University of Texas School of Law in 1974. He is admitted to practice in the states of Massachusetts and Illinois and in the District of Columbia.



**William W. Lang** is a senior vice president and chief examinations officer in the Federal Reserve Bank of Philadelphia's Supervision, Regulation and Credit Department. He oversees the department's safety and soundness and compliance examination functions as well as the department's professional development group.

Prior to joining the Federal Reserve in 2002, Lang served as director for special studies at the Office of the Comptroller of the Currency and was on the faculty of Rutgers University's Department of Economics. He has published numerous articles in leading academic and business journals.

Lang is a Fellow of the Wharton Financial Institutions Center. He received a Ph.D. in economics from Yale University and a B.A. from the City College of New York.

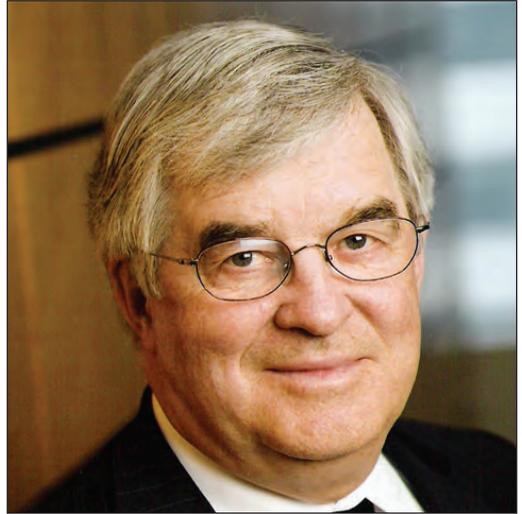


**Loretta J. Mester** is an executive vice president and director of research at the Federal Reserve Bank of Philadelphia, which she joined in 1985. As director of research, she heads a staff of economists and analysts who conduct research on macroeconomics, banking, payments, finance, and the regional economy. She serves as the Bank's chief economic advisor, attends the meetings of the Federal Open Market Committee in Washington, D.C. with the Bank's president, and makes regular presentations on the economy to the Bank's Board of Directors. Mester also oversees the Bank's Payment Cards Center, which conducts research on consumer finance and payments, and the Bank's Financial Statistics Department, which collects data and reports from financial institutions. Mester serves on the Bank's senior management committee. She was a visiting Reserve Bank officer at the Division of Monetary Affairs, Board of Governors of the Federal Reserve System, from August to November 2009.

Mester is also an adjunct professor of finance at the Wharton School, University of Pennsylvania, and a Fellow of the Wharton Financial Institutions Center.

Her research interests include the organizational structure and production efficiency of financial institutions, the theory of financial intermediation, and agency problems and regulatory issues in banking.

Mester earned a B.A. in mathematics and economics summa cum laude from Barnard College of Columbia University and an M.A. and a Ph.D. in economics from Princeton University, where she held a National Science Foundation Fellowship.



**Mark W. Olson** is co-chairman of Treliant Risk Advisors. His distinguished career in financial services has spanned over 40 years, during which time he has held top-level executive positions in the public and private sectors. Olson joined Treliant Risk Advisors after three years as chairman of the Public Company Accounting Oversight Board, five years as a member of the Federal Reserve Board of Governors and the Federal Open Market Committee, and after serving as staff director of the Securities Subcommittee of the U.S. Senate Committee on Banking, Housing and Urban Affairs. He is also a past president of the American Bankers Association. Olson spent more than a decade as a partner with Ernst & Young LLP (formerly Arthur Young & Company), where he became national director of the financial services regulatory consulting practice.

Olson's deep regulatory, public policy, and consulting experience is complemented by his Minnesota banker family heritage. He began his career at First Bank System (now U.S. Bancorp), became legislative director in the office of Congressman Bill Frenzel (R-MN), and was ultimately named president and CEO of Security State Bank, a community institution founded by his father in 1957.

Mark holds a B.A. in economics from Saint Olaf College in Minnesota and was named a distinguished alumnus in 2003.



**Kevin Rhein**, a 31-year veteran of the financial services industry, serves as executive vice president and oversees all operations for Wells Fargo Card Services and Consumer Lending (CSCL).

CSCL consists of seven lines of business that provide lending and payment solutions for individuals, families, and businesses. Under Rhein's leadership, the nearly 22,000 team members in these units serve more than 55 million customers and collectively manage more than \$110 billion in assets.

Before joining Wells Fargo, Rhein spent 15 years with Citibank/Citicorp in various positions, including director of retail banking, director of retail branch operations at Citibank Arizona, and regional director for Citicorp Mortgage. Rhein is a member of the Wells Fargo Operating Committee and Fair Lending Committee.

He also is a member of the Federal Reserve Board's Consumer Advisory Council, which advises the Board on the exercise of its responsibilities under the Consumer Credit Protection Act and other matters in the area of consumer financial services.

Rhein has a bachelor's degree in psychology from the University of Illinois and an M.B.A. from the University of Chicago.



**Peter A. Schnall** serves as Capital One's chief risk officer with responsibility for credit, compliance, enterprise risk, and operational risk. He is a member of Capital One's executive committee. Prior to becoming chief risk officer, Schnall was the company's chief credit officer from 2002 until 2006. From 1997 to 2002, he was a division head in its U.S. card business, where he had business responsibility at various times for Capital One's super-prime, installment loan, and underserved businesses in addition to several specialty segments. Before moving into the credit card division in 1997, Schnall served in the new business development area. He joined the company in 1996.

Schnall was a senior vice president at the Advisory Board Company from 1994 to 1996, and before that, he was a principal at Mercer Management Consulting (now Oliver Wyman). At Mercer, he engaged in a practice focusing on business and operations strategy development across a broad range of industries, including telecommunications, consumer products, transportation, information services, and insurance.

Schnall received a B.A. degree in philosophy *summa cum laude* from Yale University.



**Peter Tufano** is the Sylvan C. Coleman Professor of Financial Management at the Harvard Business School. He previously served as the school's senior associate dean for Planning and University Affairs, its director of faculty development, and head of the Finance Unit. His research and course development focus on mutual funds, corporate financial engineering, and consumer finance.

Tufano's mutual fund research covers a wide range of topics. He has studied the determinants of fund flows, fund governance, competition, fund distribution channels, fund regulations, fund accounting, the global fund industry, and money market funds.

Tufano's work on corporate financial engineering includes research and course development about security design, risk management, real options, and strategic uses of financial technology. He developed and taught a course on corporate financial engineering, and his work in this area has been widely published.

Tufano's third stream of work is in the field of consumer finance. Part of this research focuses on how to leverage financial innovations to serve the financial service needs of the poor. His work includes field experiments, course development, and statistical research. He is the coordinator of the HBS Executive Education program on consumer finance and, in 2009, launched a joint MBA-JD course on consumer finance with Howell Jackson (HLS).

Tufano is a research associate at the National Bureau of Economic Research and co-chairs its working group on household finance. Before joining the HBS faculty in 1989, Tufano earned a Ph.D. in business economics from Harvard University; an M.B.A. from HBS, with high distinction as a Baker Scholar; and an A.B. degree in economics, summa cum laude, from Harvard College.



**Marianne Verdier** is an assistant professor of economics at the Université Paris Ouest Nanterre La Défense. She has worked as an expert for the payment card network association Le Groupement des Cartes Bancaires, CB.

Verdier has published several papers about payment systems and interchange fees in the *Journal of Banking and Finance*, the *Journal of Economic Surveys*, the *International Journal of Industrial Organization*, and *Communications & Strategies*. Her current research interests include liability issues and innovation in payment systems.

She received a Ph.D. in economics from École Nationale Supérieure des Télécommunications de Paris. The subject of her dissertation was interchange fees and pricing of payment card systems.



**Mark Zandi** is chief economist of Moody's Analytics, where he directs research and consulting. Moody's Analytics, a subsidiary of Moody's Corporation, is a leading provider of economic research, data, and analytical tools.

Zandi's research interests include macroeconomics, financial markets, and public policy. His recent research has focused on the determinants of mortgage foreclosure and personal bankruptcy, analyzed the economic impact of various tax and government spending policies, and assessed the appropriate policy response to bubbles in asset markets.

Zandi also conducts regular briefings on the economy. He is often quoted in national and global publications and interviewed by major news media outlets and is the author of *Financial Shock*, an exposé of the financial crisis. His forthcoming book, *Paying the Price*, provides a road map for meeting the nation's daunting fiscal challenges.

Zandi has frequently testified before Congress on topics that include the economic outlook, the merits of fiscal stimulus, financial regulatory reform, and foreclosure mitigation.

Zandi received a Ph.D. from the University of Pennsylvania and a B.S. from the Wharton School at the University of Pennsylvania.



**Jonathan Zinman** is a tenured associate professor of economics at Dartmouth College.

He joined the faculty in 2005 after working as a researcher at the Federal Reserve Bank of New York. In addition to his work at Dartmouth, Zinman also serves as a visiting scholar at the Federal Reserve Bank of Philadelphia, a member of the Behavioral Finance Forum, a research associate of Innovations for Poverty Action and J-PAL, a research advisory board member of stickk.com, and a member of the new Sage/Sloan Foundations working group on behavioral economics and the regulation of retail financial markets.

Zinman's research focuses on intertemporal choice and household finance. His work tests economic theories of how firms and consumers interact in markets and closely examines the merits of incorporating specific features of psychology into economic models. He also works on methodological questions, developing randomized-control field experiments and survey designs that permit clean tests of economic theories and related policy questions.

He applies his research by working with policymakers and financial institutions around the globe. He works directly with institutions to develop and test innovations throughout the retail arena in pricing, product development, marketing, risk assessment, risk management, and client communication.

Zinman earned a Ph.D. in economics from the Massachusetts Institute of Technology in 2002 and a B.A. in government from Harvard in 1993.

# ORIGINS OF THE PAYMENT CARDS CENTER

The idea of creating a center of excellence focusing on payment cards and their role in the payment system and larger economy emerged in planning sessions at the Federal Reserve Bank of Philadelphia in 1999. At that time, the largest concentration of credit card receivables was held by banks located in the Third Federal Reserve District. In addition, managing these accounts involved numerous ACH and wire transactions between banks each day as well as millions of checks written by consumers each month. These circumstances made the Bank an appropriate place to establish a center to foster analysis of developments in the markets for consumer credit and payments.

Anthony M. Santomero, who served as the Bank's president from 2000 to 2006, formally established the Payment Cards Center in 2000. Peter Burns joined the Bank as the center's director in November of that year, and in the spring of 2001, Peter named Stan Sienkiewicz the center's manager. Within a year, the nucleus of the center had been established, and many of its distinctive characteristics were already evident. From the start, the center broadly defined its audience to include consumers and consumer groups, industry participants, regulators and other policymakers, and academic researchers interested in studying the markets for consumer credit and payments.

This interdisciplinary focus, in turn, underlines how the center's structure and its activities encourage frequent interaction with each constituency. It also explains why the Bank created the center as an independent unit working in conjunction with staff in several Bank departments, including Research; Supervision and Regulation; Community Affairs; Legal; and Treasury and Payment Services. Rather than duplicating efforts in those areas, the Bank designed the center to facilitate collaboration across departments while providing its own unique expertise and programs. To that end, the center began hiring industry specialists — individuals with industry and policy experience and strong analytical and communication skills. The specialists are natural complements to the Ph.D. economists in Research and the bank examination staff in Supervision and Regulation.

By the end of its first full year, the center had established its basic agenda, which included producing a regularly updated bibliography on consumer credit and payments, a series of analytical discussion papers accessible to a wide audience, an internal workshop series to keep Bank staff apprised of developments, and a series of conferences focused on issues relevant to the credit and payments markets. The center also established its organizational approach: to anticipate emerging issues and assemble a group of experts from industry, consumer groups, policy



circles, and academia — both as speakers and as audience members — to engage in candid conversations. Center staff then shared the lessons from these conversations with the public through the center’s publications.

During its second year, the center and the Bank’s Research Department co-sponsored the first in a series of biennial research conferences on topics in consumer credit and payments. Four conferences later, these meetings are regarded as some of the best in this area of study. (The next joint research conference will be held in 2011.) The center and the University of Pennsylvania’s Wharton School also co-sponsored the first in a series of conferences on credit risk modeling. The center also established a visiting scholars program to benefit from the expertise of outstanding researchers and to assist them in their research.

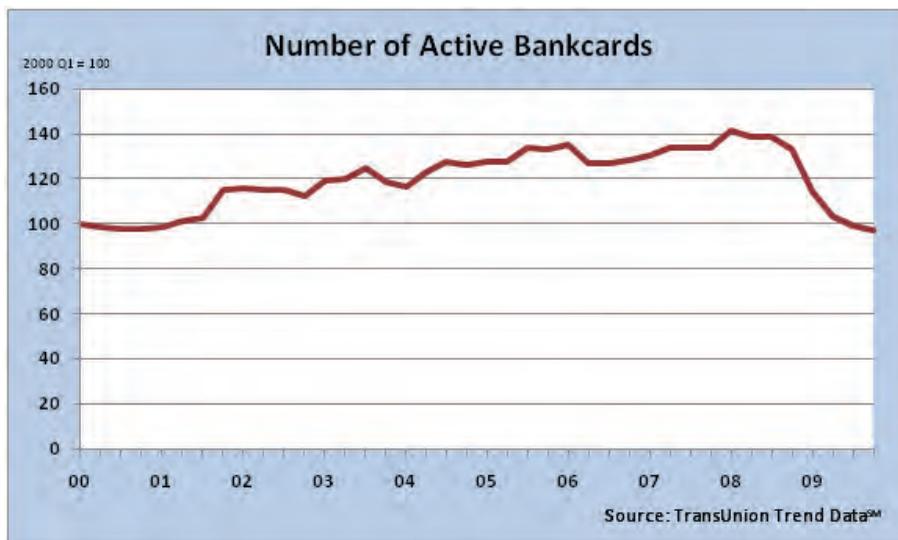
By its third year, the center had introduced another new line of inquiry — a focus on consumer credit and payments issues that had yet to receive significant attention in formal research. These issues included consumer privacy, identity theft and payment card fraud, securitization of credit card receivables, stored-value cards, smart cards, credit reporting, and credit counseling, to name just a few. The center has revisited these topics many times over the years as new developments have arisen.

Gradually, the center has expanded its horizons, examining the impediments to providing financial services to the unbanked and underbanked, alternative credit scoring models, protections for payment services offered to consumers, and the efficacy of disclosure regulation. It has also produced a series of papers documenting new applications of prepaid cards, including government benefits, disaster relief, and medical savings accounts. Newer areas of inquiry have included studies of the merchant acquiring industry, micro payments, mobile payments, and the application of payment cards to transit fare systems.

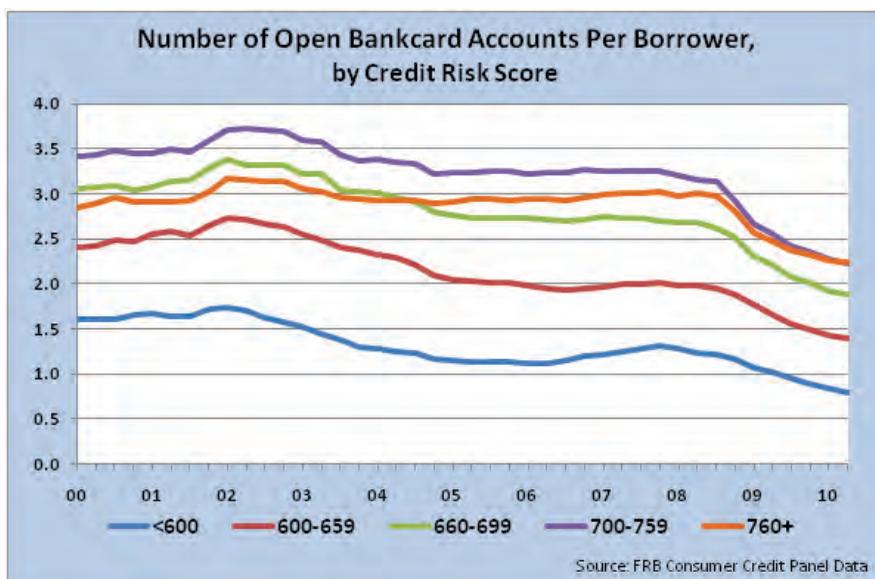
Over the course of its first decade, the Payment Cards Center has organized or co-organized 25 conferences and 66 workshops. The center’s staff and its visiting scholars have written well over 100 discussion and working papers and published more than 20 articles in journals and books. In addition, center staff have participated in dozens of industry and policy events, ensuring frequent and open dialogues with the center’s audience. Looking back, the Payment Cards Center has served its mission well: to promote a deeper understanding of the markets for consumer credit and payments. But as recent events conclusively demonstrate, this is an ongoing task and perhaps more important today than ever.



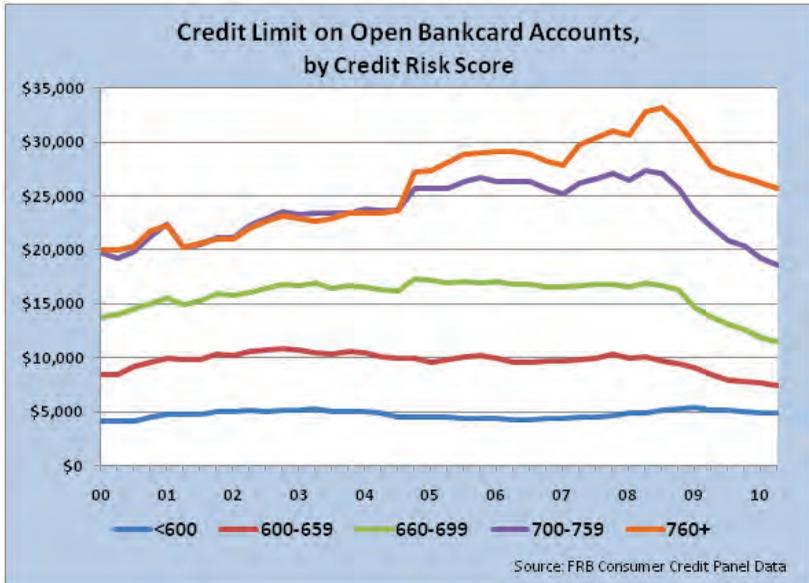
# CONSUMER CREDIT AND PAYMENTS IN PICTURES: USE, AVAILABILITY, AND INNOVATION



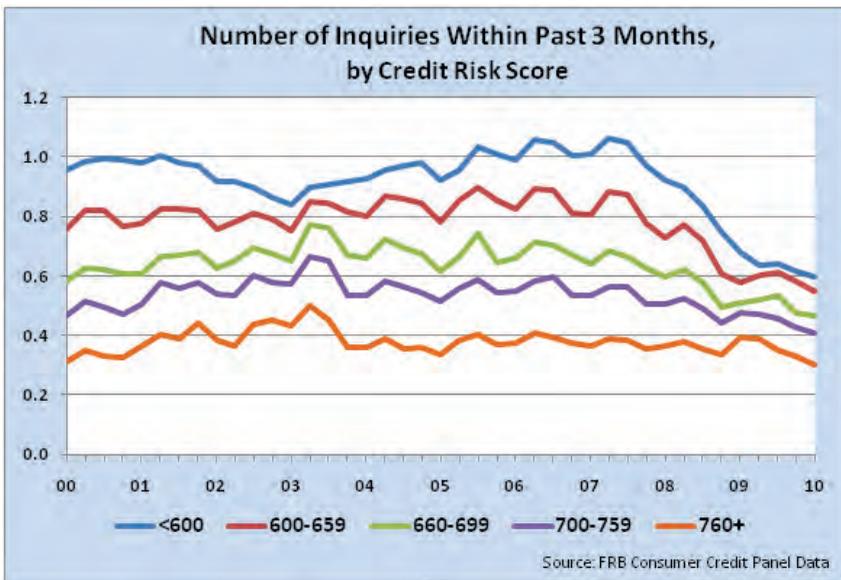
This chart indexes the aggregate level of active bankcards among all consumers. The number of active bankcards increased about 40 percent from 2000 to its peak in 2008 and subsequently fell by about 40 percent. Note that from 2000 to 2009, the U.S. adult population increased by about 10 percent.



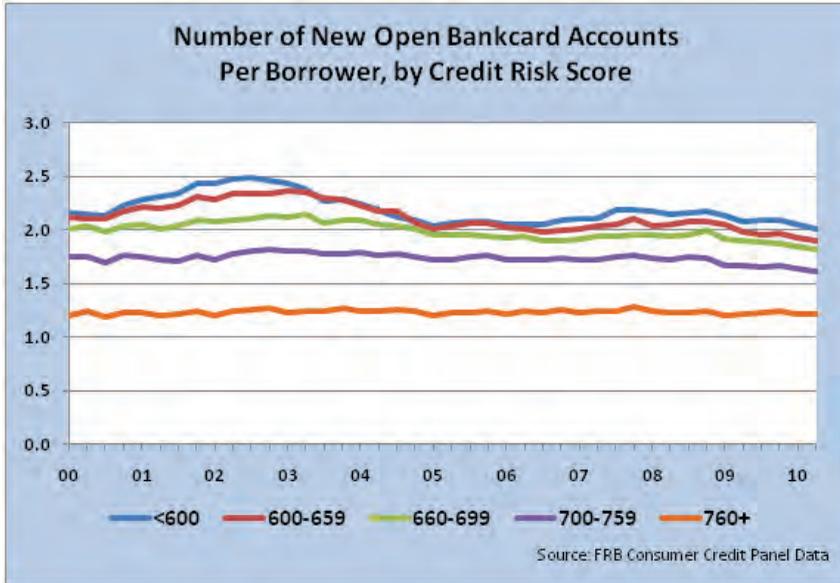
The average number of open bankcard accounts per borrower fell moderately between 2002 and 2008. However, after the middle of 2008, the average number of open bankcard accounts across all borrowers dropped by at least one.



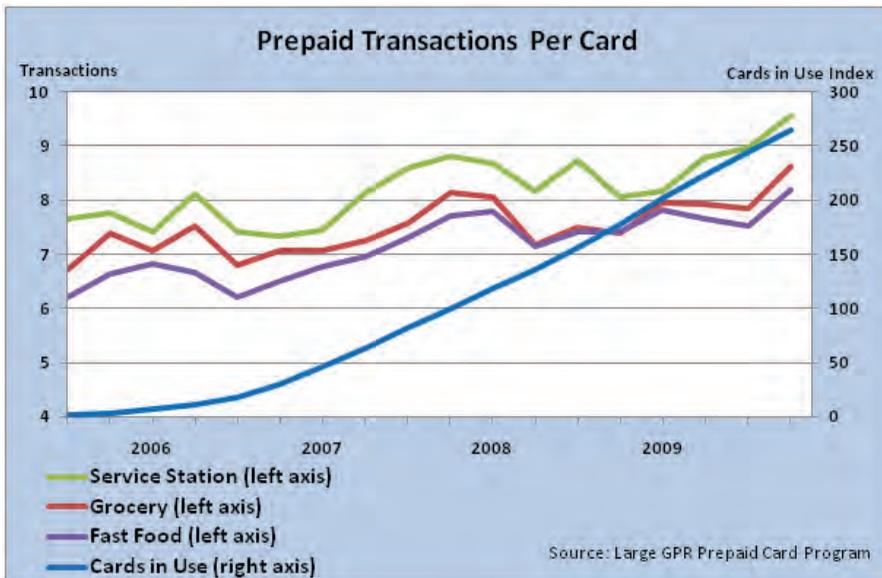
Over the period from 2001 to the middle of 2008, credit limits on open bankcard accounts increased significantly for borrowers with higher credit risk scores and slightly for borrowers with lower credit risk scores. However, among consumers with higher credit risk scores, credit limits fell by \$5,000 to \$10,000 between the second half of 2008 and 2010.



Across all borrowers, the average number of inquiries per borrower fluctuated moderately between 2000 and 2010. For borrowers with lower credit risk scores, inquiries fell significantly after 2008.



The number of new open bankcard accounts per borrower remained relatively stable between 2000 and 2010 for most borrowers.



The left axis of this chart measures the number of transactions made on a unique prepaid card in a given quarter by three merchant categories. The right axis displays an index of the number of cards in use during that quarter. Across the three most popular merchant categories for these cards, transactions per card in a given quarter increased by at least one between 2005 and 2009. In addition, the number of cards in use nearly doubled on a yearly basis between 2005 and 2009.

# TIMELINE OF EVENTS

An integral function of the Payment Cards Center is to provide a forum for discussing critical issues facing industry and public policy practitioners. The center does this in two ways. The first is by hosting conferences that incorporate the unique perspectives of academia, industry, consumers, and the public sector. The second is by sponsoring in-house workshops at which invited guests lead discussions on a variety of subjects related to the payment cards industry. On the following pages you will find a timeline of all conferences hosted by the Payment Cards Center over the past 10 years.

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## **Innovation in Financial Services and Payments May 16-17, 2002**

- Co-sponsored by the Research Department of the Federal Reserve Bank of Philadelphia.
  - Examined the sources of innovation and the diffusion of new technology.
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## **Credit Risk Modeling & Decisioning May 29-30, 2002**

- Co-sponsored by the Wharton Financial Institutions Center of the University of Pennsylvania and the Business and Economics Section of the American Statistical Association.
  - Discussed the latest approaches to credit risk modeling and evaluation of models.
- 

## **The Future of E-Commerce Payments June 19, 2002**

- Co-sponsored by the Electronic Commerce Payments Council of the Electronic Funds Transfer Association.
  - Discussed the development, acceptance, and growth of electronic payments.
- 

## **Innovation at the Point-of-Sale February 27, 2003**

- Examined emerging developments in consumer payments from the perspective of merchants and payments processors.

## **Financial Privacy: Perspectives from the Payment Cards Industry March 21, 2003**

- Discussed the policy issues surrounding financial privacy from the perspective of participants in the consumer payments industry.
- 

## **After the Hype, e-Commerce Payments Grow Up June 17-18, 2003**

- Co-sponsored by the Electronic Commerce Payments Council of the Electronic Funds Transfer Association.
  - Explored the effects of the shift from paper instruments to electronic payments on retail payment systems.
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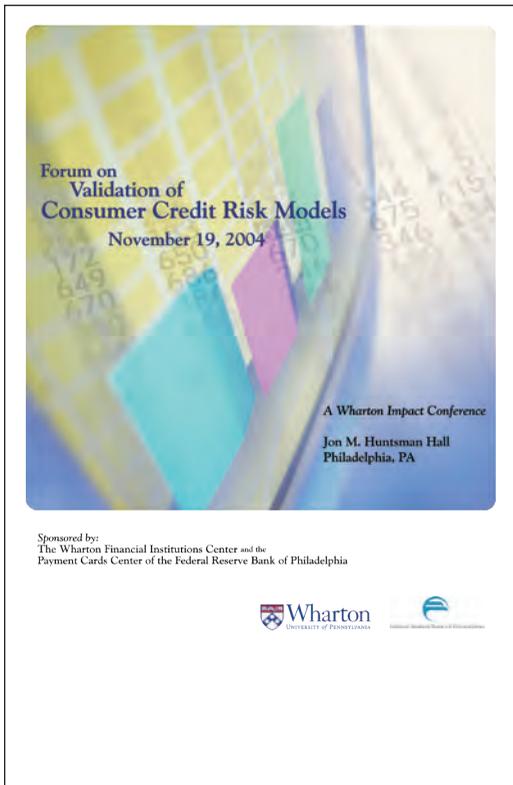
## **Asset-Backed Securities and Credit Cards December 2-3, 2003**

- Described the development of ABS markets and their adaptation for credit card receivables.
- 

## **Identity Theft: Where Do We Go From Here? February 10, 2004**

- Co-hosted with the Gartner Fellows Program.
- Discussed credit and payment industry responses to the recent increase in financial crimes affecting consumers.

# TIMELINE OF EVENTS

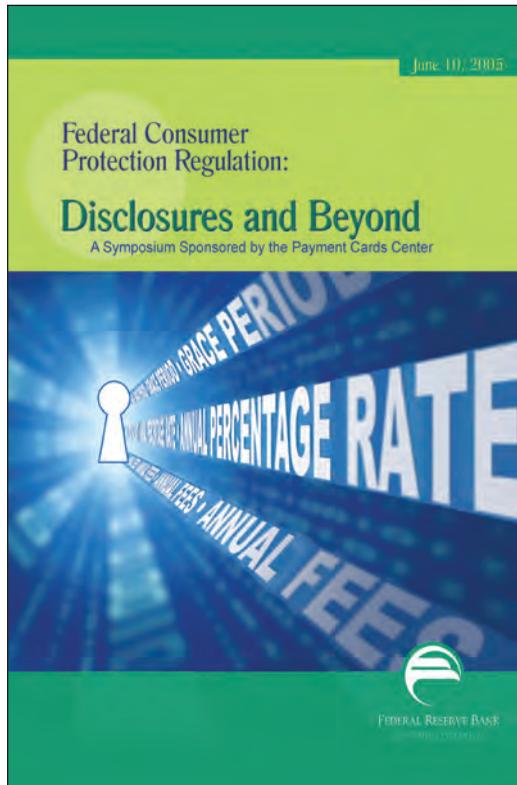


## Prepaid Cards: How Do They Function? How Are They Regulated? June 2-3, 2004

- Discussed the development of the prepaid card market and its regulation.

## Forum on Validation of Consumer Credit Risk Models November 19, 2004

- Co-sponsored by the Wharton Financial Institutions Center of the University of Pennsylvania.
- This third edition in a series of conferences focused on the problem of model validation in a dynamic environment.

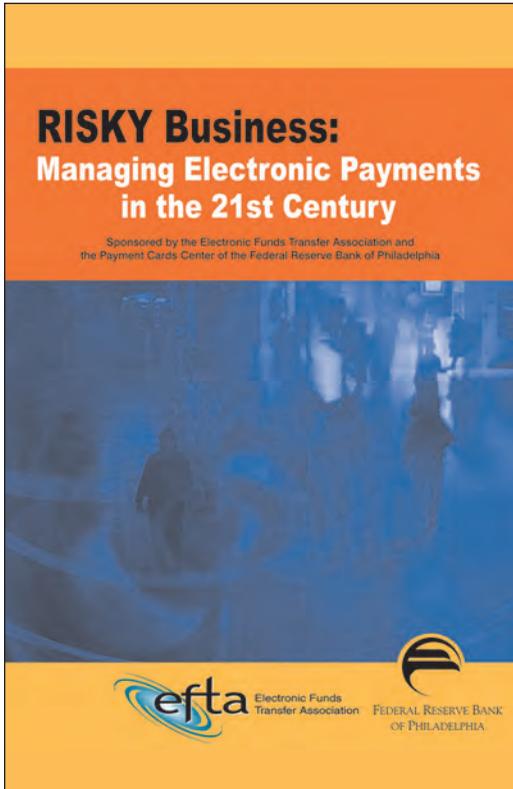


## Assessing the Impact of Electronic Benefits Transfer on America's Communities and the U.S. Payment System December 4, 2004

- Co-sponsored by the Community Affairs Department of the Federal Reserve Bank of Philadelphia and the Electronic Funds Transfer Association's EBT Industry Council.
- Discussed the economics and technology of EBT and the effects of the conversion of benefit payments from a paper-based to an electronic payment system.

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

- Examined the effectiveness of standardized disclosures for credit cards and opportunities for improvement.

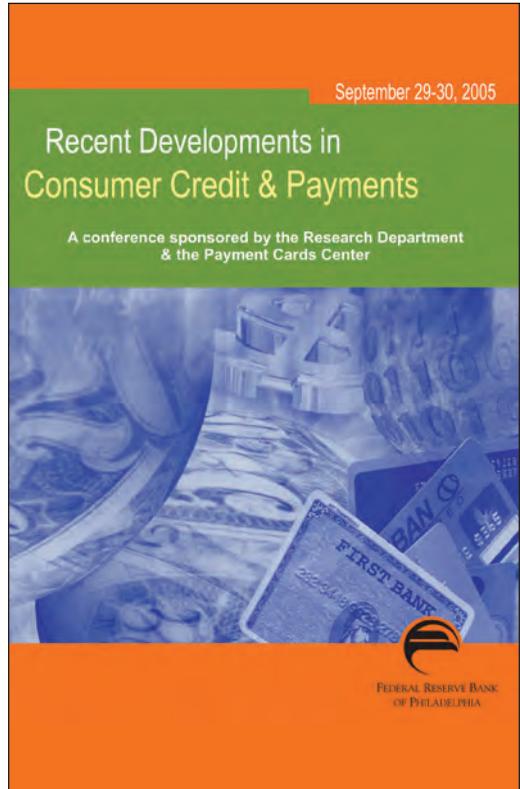


**Risky Business: Managing Electronic Payments in the 21st Century**  
**June 20-21, 2005**

- Co-hosted with the Electronic Funds Transfer Association.
- Examined important issues related to risk management and fraud prevention in electronic payments, such as identity theft, data security, terrorist financing, money laundering, Internet fraud, and regulation.

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

- Examined the opportunities and challenges mainstream financial firms encounter in designing alternatives to the offerings of check cashers, money transmitters, and payday lenders.

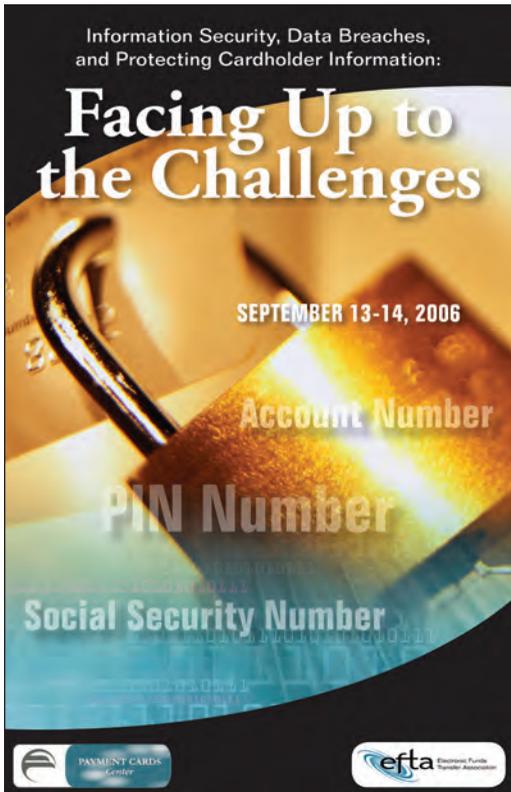


**Recent Developments in Consumer Credit and Payments**  
**September 29-30, 2005**

- Co-sponsored by the Research Department of the Federal Reserve Bank of Philadelphia.
- Assembled 100 researchers to discuss seven papers on topics such as consumer bankruptcies, consumers and future borrowing, loan repayment, and predatory lending.

**The Role of Electronic Payments in Disaster Recovery: Providing More Than Convenience**  
**May 3-4, 2006**

- Examined the lessons learned from Hurricane Katrina and considered how these experiences might be useful in identifying opportunities to further strengthen the financial system's response to future catastrophic events.

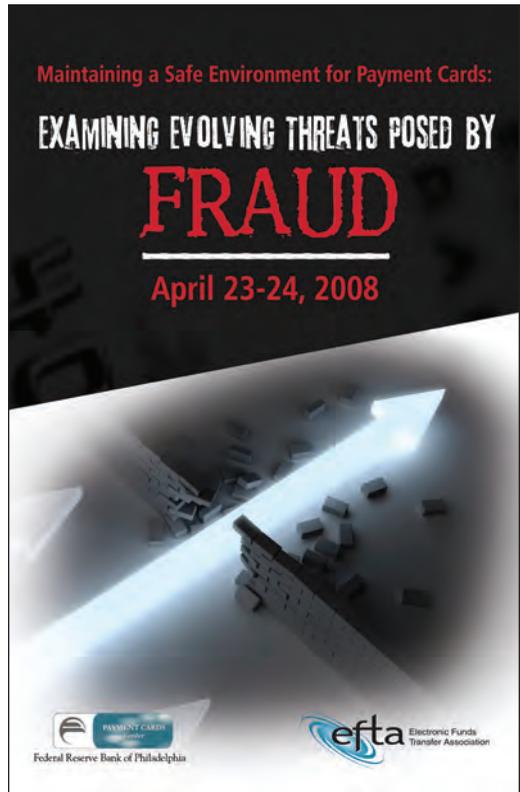


**Information Security, Data Breaches, and Protecting Cardholder Information: Facing Up to the Challenges**  
**September 13-14, 2006**

- Co-sponsored by the Electronic Funds Transfer Association.
- Considered ways to more effectively ensure data security throughout the entire payments chain within the emerging legal and regulatory framework.

**Payments, Credit, and Savings: The Experience for LMI Households**  
**May 21-22, 2007**

- Co-sponsored by the Community Affairs Department of the Federal Reserve Bank of Philadelphia.
- Explored how changes in financial services markets or banking policy may better serve LMI households' financial needs when making payments, accessing credit, and setting aside savings.

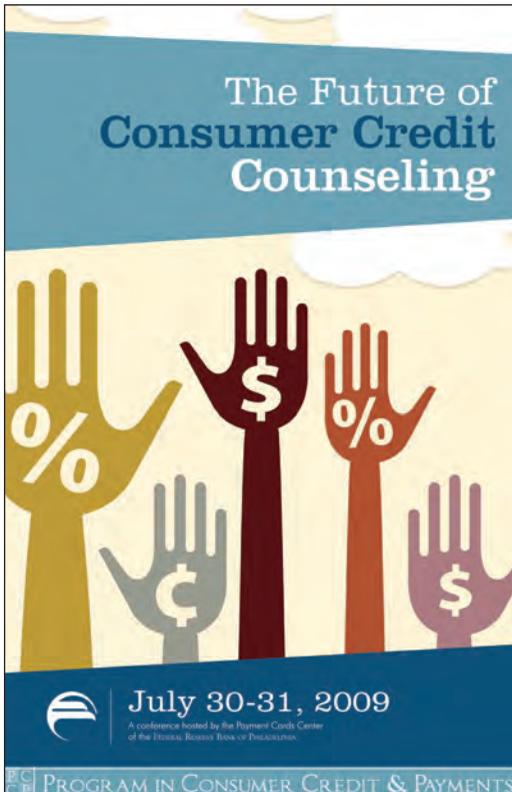


**Maintaining a Safe Environment for Payment Cards: Examining Evolving Threats Posed by Fraud**  
**September 20-21, 2007**

- Co-sponsored by the Research Department of the Federal Reserve Bank of Philadelphia.
- 100 researchers met to discuss six papers on topics such as liquidity constraints, the rise in consumer bankruptcy, and the financial mistakes made by credit card holders.

**Maintaining a Safe Environment for Payment Cards: Examining Evolving Threats Posed by Fraud**  
**April 23-24, 2008**

- Co-sponsored by the Electronic Funds Transfer Association.
- This sequel to the September 2006 conference presented new insights into how technologies, common standards, balanced incentives, and other factors can be developed to better manage fraud risks and limit damages across the payment system.



**Understanding the Housing and Mortgage Markets: What Data Do We Have? What Data Do We Need?**  
**June 25, 2009**

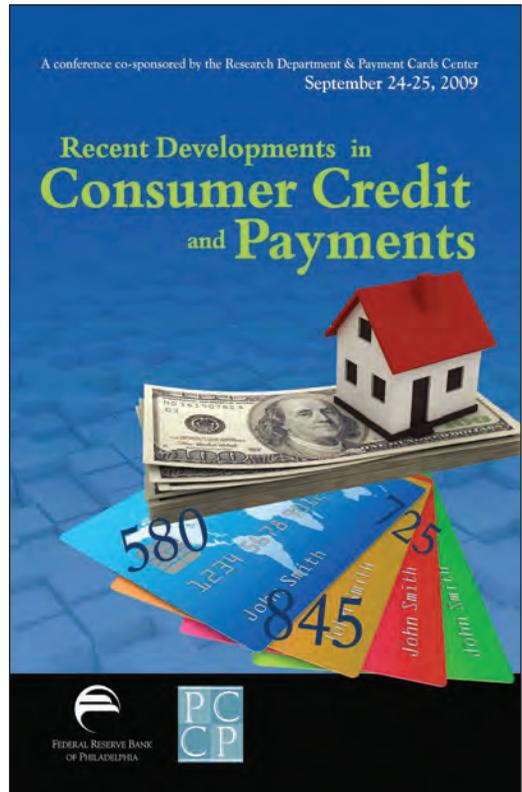
- Co-sponsored by the Community Affairs Department of the Federal Reserve Bank of Philadelphia.
- Discussed topics related to state and local data needs as well as federal data efforts in the housing and mortgage markets.

**The Future of Consumer Credit Counseling**  
**July 30-31, 2009**

- Discussed the evolution of the credit counseling industry, its role in the U.S. consumer credit market, and the opportunities and impediments to offering consumers more effective counseling, financial education, and workout products as viable alternatives to bankruptcy.

**Federal Regulation of the Prepaid Card Industry: Costs, Benefits, and Changing Industry Dynamics**  
**April 8-9, 2010**

- Examined the economics of prepaid cards, the variation in prepaid business models across different product categories, and considered the impact of existing and potential new regulation on the development of prepaid cards.



**Recent Developments in Consumer Credit and Payments**  
**September 24-25, 2009**

- Co-sponsored by the Research Department of the Federal Reserve Bank of Philadelphia.
- 100 researchers assembled to discuss seven papers on topics such as securitization and distressed loan renegotiation, consumer disclosure, data breaches and identity theft, and the effects of the U.S. financial crisis on global retail lending

**Achieving Sustainable Improvements in the Security of Retail Payments: Technologies, Standard-Setting, and Coordination**  
**February 16-17, 2010**

- Discussed data security standards and what these technologies can and cannot do when it comes to protecting consumers' payment information and offered suggestions on how the invited groups might collaborate on data security issues.

**THANK YOU FOR  
CELEBRATING TEN  
YEARS WITH US!**

**PAYMENT CARDS CENTER STAFF**

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