



# Update

NEWSLETTER

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

## Payment Cards Center Celebrates 10th Anniversary

*The Payment Cards Center of the Federal Reserve Bank of Philadelphia celebrated its 10th anniversary in 2010. To mark this milestone, the center hosted a conference, "The New Landscape for Consumer Credit and Payments," at the Bank on December 2 and 3, 2010. This special edition of the Payment Cards Center Update newsletter highlights the presentations<sup>1</sup> made at the conference.*

### **The New Landscape for Consumer Credit and Payments**

This conference brought together 120 participants from the financial services industry, research institutions, non-profit organizations, and regulatory agencies to examine important research and policy questions. It also provided a forum for participants to discuss the effects of the recent financial crisis and new regulation on consumers' use of credit and payment instruments, the industry's response, and important lessons for improving the design of financial products and services.

Federal Reserve Board Governor Elizabeth Duke delivered a keynote address on December 2. In her remarks,<sup>2</sup> Duke noted that — based on the available data — the unprecedented decline in revolving consumer credit outstanding that occurred during the financial crisis can be attributed to a number of factors, including higher charge-offs, lower availability of credit, and less consumer willingness to take on debt. The recession also appears to have affected consumer payment preferences. While the use of electronic payments in the form of credit and debit cards has increased markedly since the late 1990s, during the most

<sup>1</sup> The conference presentations are available on the Payment Cards Center's website: <http://www.philadelphiafed.org/payment-cards-center/events/conferences/2010/new-landscape/agenda.cfm>.

<sup>2</sup> Governor Duke's speech, "Developments in the Landscape for Consumer Credit and Payments," can be found on the Federal Reserve Board's website: <http://www.federalreserve.gov/newsevents/speech/duke20101202a.htm>.



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recent recession, consumers shifted away from credit cards as a method of payment and toward debit cards. Disentangling the effects of the recession from regulatory changes on credit and debit card usage will be particularly difficult given that they occurred at nearly the same time. Looking ahead, Duke suggested that technological innovation through the development of new payment methods and products will also play an important role in shaping the behavior of consumers and lenders.

In his opening remarks, Bob Hunt, vice president and director of the Payment Cards Center, reminded the audience that while many of the issues at the forefront of today's policy debates are hardly new, there are still significant gaps in our understanding of the markets for unsecured credit and consumer payments. He added that — especially in times of uncertainty — advancing our understanding of decisions made by consumers and firms in these markets is imperative. The sound theories that are needed to make better policy decisions will require new and better techniques as well as better data, often different data than we currently have.

Hunt pointed out that many policy questions also arise from new business models, new financial instruments, and new industries. In many ways, these are the places where the greatest value can be created by “making data,” a process that often begins by establishing basic definitions. He noted that much of what the Payment Cards Center has done over its 10-year history is to focus on those areas that lack data and to expand the available information about how the markets for consumer credit and payments function.

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This is one of the center's unique contributions and one it will continue to make.

William Lang of the Federal Reserve Bank of Philadelphia moderated the first conference panel. The panel featured Mark Zandi of Moody's Analytics, Glenn Canner of the Federal Reserve Board, Kevin Rhein of Wells Fargo & Company, and Raj Date of the U.S. Department of the Treasury. The panelists considered the state of financial markets and changes in regulation, how financial institutions and consumers are responding to the economic climate and new regulatory environment, and the plans for the Consumer Financial Protection Bureau.

Zandi described the improvement in household credit conditions resulting from a number of different factors, including a dramatic tightening in lenders' underwriting standards, the efforts of households to repair their balance sheets, and gradual improvement in the job market. Zandi's optimism with respect to future credit conditions was tempered by the significant risks posed by the uncertainty surrounding the willingness of businesses to expand and hire and the ongoing foreclosure crisis.

Canner discussed the effects of the new credit card regulations on the credit card market, focusing on restrictions in card issuers' ability to change interest rates and impose fees. He outlined the challenges in trying to distinguish the issuers' responses to rule changes from responses to deteriorating economic conditions. Canner suggested three distinct approaches to attack this problem: surveying lenders, comparing changes in product markets affected by the regulations with other markets (e.g., consumer vs. commercial credit cards), and comparing variations in effects by geography with variations in local economic conditions.

Rhein provided an issuer's perspective on recent trends in the payment industry. In general, credit card issuers responded to worsening economic and credit conditions via more stringent underwriting criteria for new accounts and closing inactive accounts or accounts with deteriorating risk profiles. In anticipation of legislative changes that limited the tools available for account management, issuers also re-priced some accounts based on risk criteria. While it is too early to gauge all of the consequences of the new rules and regulations governing the card indus-

try, he expects there will be transformations in the type and amount of credit offerings as well as the sources of revenue for credit providers. Going forward, Rhein emphasized the importance of providing consumers with simple and transparent products and the tools to help them manage their finances.

Date characterized the consumer credit industry as being in a state of flux as consumers deleverage, financial services companies rework their business models, and policymakers change the pre-crisis regulatory scheme. Date focused on one part of the regulatory restructuring — the establishment of the Consumer Financial Protection Bureau (CFPB). Date stressed that fact-based research and market analytics will play an important role in rule-making, supervision, enforcement, and even the design of a consumer response center. He also described plans to improve market surveillance with the objective of detecting and responding more rapidly to emerging consumer protection issues.



*Peter Tufano of the Harvard Business School was a keynote speaker at the Payment Cards Center's 10th anniversary conference.*

On December 3, Professor Peter Tufano of the Harvard Business School opened the second day of the conference with his keynote address entitled "Listening to Consumers: Informing the Regulatory Agenda." Tufano engaged the audience in a discussion of his recent research, which examines how regulatory priorities might be set at this critical time. He outlined what economic principles, in particular market failures, tell us should be driving regulation and presented information from a survey administered in October 2010 in which consumers were asked where they think regulators and businesses should focus their attention.

The preliminary survey results revealed that over one-quarter of the respondents did not think their financial interests were appropriately protected. The financially fragile (including those who were unemployed or reported being over-indebted) registered considerably greater dissatisfaction than other consumers. In terms of products, credit cards, particularly for those who carry a balance, and debt collection, for those classified as financially fragile, engendered a relatively higher level of dissatisfaction with financial regulation.

Tufano suggested that while much additional research is needed, this approach may provide useful input into the ongoing process of establishing priorities among agencies tasked with protecting consumers. He cautioned, however, that while the survey data can identify areas of dissatisfaction and which products are problematic and for whom, it cannot tell regulators what to do. He encouraged the audience to think about defining metrics that could be used to determine whether regulators are making progress in protecting consumers.

Loretta Mester of the Federal Reserve Bank of Philadelphia moderated the second panel of the conference, featuring Robert Avery of the Federal Reserve Board, Jonathan Zinman of Dartmouth College, and Satyajit Chatterjee of the Federal Reserve Bank of Philadelphia. The panelists explored the ability of research to inform public policy decisions using promising new data sources and techniques.

Avery argued that institutional loan-level micro data remain underutilized in formal research, policy-making, and oversight. While this is beginning to change, much work is needed to understand the strengths and weaknesses of these data. For example, it is important to know that the data used to inform a policy decision are representative of the population of consumers one is trying to protect and the markets that will be affected. Avery placed particular emphasis on making better use



***Pictured left to right are: Jonathan Zinman, Dartmouth College; Satyajit Chatterjee, Federal Reserve Bank of Philadelphia; Robert Avery, Federal Reserve Board of Governors; and Loretta Mester, Federal Reserve Bank of Philadelphia.***

of credit bureau data and suggested that the new CFPB start its data collection efforts there.

Zinman described how researchers, working with partners such as financial institutions and nonprofit organizations, implement tests using randomized experiments in order to better identify cause and effect relationships. Zinman provided examples from his own research in retail financial services, including experiments that introduced a new product, a new marketing strategy, and a new messaging strategy. In each case, the research suggests that consumer behavior does respond to these changes. But he cautioned that such findings are not sufficient for making good policy decisions. In order to show that innovations can improve outcomes, researchers must have a holistic view of consumers' financial decisions and an appreciation for how the marketplace will respond to the introduction of such innovations.

Chatterjee described calibration — a research methodology that is common in macroeconomics — and how it can be used to examine the ways in which policy might influence outcomes in the market for consumer credit. This technique uses numerical methods to solve complex

models of the economy based on the optimizing behavior of individual consumers and firms and a realistic description of the information problems they face. When carried out carefully, calibration can be used to simulate the likely general equilibrium outcomes of a policy experiment. This approach is becoming an increasingly important complement to traditional empirical microeconomic studies of credit markets. Chatterjee provided examples of consumer finance questions being analyzed using calibrated models. These include measuring the effects of restricting lenders' access to information about borrower characteristics that are relevant for estimating default probabilities and the effects of innovation in mortgage financing on housing markets and consumer behavior.

Bob Hunt moderated the final conference panel, which featured Marianne Verdier of Université Paris Ouest Nanterre, Peter Schnall of Capital One, and Mark Olson of Trelia Risk Advisors. The purpose of this panel was to provide forward-looking perspectives on consumer payment systems research, the role of design in credit and payment products, and the challenges facing regulators.

Verdier emphasized that the payment card industry stands at a critical point in its development and regulation. Policy decisions made around the world could have significant implications for efficiency, competition, access, pricing, investment, and innovation. Policy-making is complicated by the externalities associated with the economics of platforms and networks. Verdier argued that this is an area that requires much more empirical as well as



theoretical research, especially in terms of the dynamics of how payment systems are invented, developed, and then replaced over time.

Schnall reflected on the core strategic choices industry participants will face in the future, including focusing on fairness in credit card products, maintaining the breadth of credit access, navigating the changing bases of competition, and responding to new products and channels of product delivery.

Olson discussed the difficulties in trying to predict the future, especially in the banking industry. In terms of new regulatory developments, Olson speculated about the application of new prudential regulations for “systemically important” payment systems and considered whether future consumer protection regulation will focus on better disclosures or explicit restrictions on pricing. He suggested that one metric for gauging the effects of new regulation of financial institutions might be the extent to which the more appealing financial products are developed and offered by organizations outside the financial sector. Olson concluded by encouraging the audience to be engaged in gaining an understanding of how new regulations will affect users of financial services and to provide feedback to rule writers at this important time.



**Pictured left to right are: Marianne Verdier, Université Paris Ouest Nanterre; Peter Schnall, Capital One; Mark Olson, Treliant Risk Advisors; and Bob Hunt, Payment Cards Center.**

Hunt closed the conference by stressing the importance of proceeding scientifically in examining the questions articulated during the conference. This approach entails relying on well-developed and rigorously tested models of the choices that consumers and businesses make. Equally important is maintaining a rich and candid conversation among researchers, policymakers, consumer groups, and industry participants. The Payment Cards Center will continue its efforts along both dimensions in setting its agenda of future events and publications.

## Five Easy Pieces: Recent Examples of Research on Consumer Credit at the Philadelphia Fed

*The Payment Cards Center is just one of many areas at the Philadelphia Fed studying consumer credit markets. In this edition of the newsletter, we showcase a few of the recent studies produced by staff in other parts of the Bank.\**

Our first example is a paper co-authored by Wenli Li of the Research Department (with Michelle White of the University of California, San Diego, and Ning Zhu of the University of California, Davis). In “Did Bankruptcy Reform Cause Mortgage Default Rates to Rise?,” the authors examine

the possibility that recent changes in U.S. bankruptcy law contributed to the subsequent rise in mortgage defaults. How might this happen? The law had two effects. First, it raised the cost of filing for bankruptcy. Second, for some consumers, it reduced the amount of unsecured debt that

can be discharged. Both have the effect of reducing the cash flow available to the consumer to pay an outstanding mortgage. Overall, the authors calculate that bankruptcy reform caused the number of mortgage defaults to increase by around 200,000 a year even before the start of the financial crisis, suggesting that the reform increased the severity of the crisis when it came.

Marvin M. Smith, a community development research advisor in the Bank's Community Development Studies and Education Department, is the co-author of the second paper (with Christy Hevener, formerly of the same department). In "Subprime Lending over Time: The Role of Race," the authors use a special estimation technique and find that over the period 1999 through 2007, even after taking into account a variety of factors used to underwrite mortgages, the prevalence of subprime mortgages varies by the ethnicity of the borrower.

The final three papers we are featuring in this edition were co-authored by staff in our Bank's Supervision, Regulation and Credit Department. The first paper was produced by the Philadelphia Fed's Chris Henderson (with Paul Calem of the Board of Governors and Jonathan Liles of Freddie Mac). In "'Cream Skimming' in Subprime Mortgage Securitizations: Which Subprime Mortgage Loans Were Sold by Depository Institutions Prior to the Crisis of 2007?," the authors investigate the possibility that lenders may be more likely to securitize subprime mortgages that, according to data available only to the loan originator, are riskier than other loans. For a pool of subprime mortgage loans originated in 2005 and 2006, they find evidence consistent with this view.

In another paper, Chris Henderson and Julapa Jagtiani, also of the Supervision, Regulation and Credit Department, examine the relationship between banks' mortgage portfolios and capital requirements as determined by bank supervisors. In "Can Banks Circumvent Minimum Capital Requirements? The Case of Mortgage Portfolios under Basel II," the authors show that capital models for mortgages that use different segmentation approaches can produce different amounts of required capital. Because banks typically enjoy some flexibility in how they segment their portfolios, banks may be faced with incentives to choose an approach that results in the least required capital for them. The authors conclude that such incentives should be addressed via supervisory re-

view of banks' models and segmentation strategy.

Over the period  
1999 through 2007,  
even after taking  
into account a  
variety of factors  
used to underwrite  
mortgages, the  
prevalence of  
subprime mortgages  
varies by the  
ethnicity of the  
borrower.

In another paper by Julapa Jagtiani, this one co-authored with William Lang (also of our Supervision, Regulation and Credit Department), the authors examine borrowers' incentives to default on one or both mortgages as home prices have fallen. In "Strategic Default on First and Second Lien Mortgages During the Financial Crisis," the authors find, somewhat surprisingly, that there are many instances in which consumers default on their first mortgages (the senior loan on a residential property) but continue to pay on their second mortgages (the junior lien). They find that borrowers are more likely to remain current on their second lien if it is a home equity line of credit

(HELOC) compared with a closed-end home equity loan. Moreover, the size of the unused line of credit is an important factor. They also find some evidence that mortgage loss mitigation programs may create an incentive for some homeowners to default on their first mortgages.

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\* The views expressed in these papers are those of the authors and not necessarily those of the Federal Reserve Bank of Philadelphia or the Federal Reserve System. All papers mentioned here are available at [www.philadelphiafed.org/payment-cards-center/publications/](http://www.philadelphiafed.org/payment-cards-center/publications/), except for Smith's paper, which is available at [www.philadelphiafed.org/community-development/publications/discussion-papers/](http://www.philadelphiafed.org/community-development/publications/discussion-papers/).

# Announcement and Call For Papers

## Recent Developments in Consumer Credit and Payments

*A Conference Co-sponsored by the Research Department and Payment Cards Center of the Federal Reserve Bank of Philadelphia*

*September 22-23, 2011*

### **Submission Deadline: June 30, 2011**

This is the sixth edition of our joint research conference. We encourage submissions on all aspects of consumer credit and payments. Given recent economic and legislative developments, we are particularly interested in research that contributes to our understanding of the design and effects of regulation of these markets. Both theoretical and empirical papers are welcome.

Areas of interest include, but are not limited to, the following:

- Consumer default, bankruptcy, and alternatives to bankruptcy
- The role of collections in the market for consumer credit
- Foreclosure and alternatives to foreclosure in the mortgage market
- Contractual and informational issues in consumer credit markets
- Credit scoring and credit reporting
- Securitization of consumer debt
- The processes that drive change in the use and acceptance of payments
- Policy issues associated with consumer payment networks

The conference will be held at the Federal Reserve Bank of Philadelphia on September 22-23, 2011.

Conference organizers will provide accommodations and partial financial support for travel expenses to the presenting author of each paper accepted for the program.

Please e-mail an electronic copy (PDF only) of your paper by June 30, 2011 to: [phil.pcc11@phil.frb.org](mailto:phil.pcc11@phil.frb.org).

Conference Organizers: Mitchell Berlin (215-574-3822), Ronel Elul, and Robert M. Hunt (215-574-3806).

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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.