

Innovation in Financial Services And Payments

A Conference Sponsored by the Research Department and the Payment Cards Center
of the Federal Reserve Bank of Philadelphia



On May 16-17, 2002, the Federal Reserve Bank of Philadelphia's Research Department and Payment Cards Center co-sponsored a conference on Innovation in Financial Services and Payments. Robert Hunt, an economist in the Research Department, put together the program, which included three distinguished addresses and four focused sessions. The conference addressed such questions as: How far has the U.S. progressed in the transition to electronic consumer payments? Does competition between payment networks stimulate innovation? These questions and others addressed at the conference do not yet have definitive answers. One goal of the conference was to encourage work in this important, but under-researched area.

President Anthony M. Santomero opened the conference, providing an overview of changes in the payment system, such as the growing role played by nonbank providers of these services. These changes have important implications for the Fed, which is both a provider of payment services and a regulator of private providers of these services.

In his address, David Balto (White and Case, formerly of the Federal Trade Commission) pointed out that in financial services, innovation often occurs through joint ventures or network arrangements, organizational forms that present a difficult challenge for antitrust analysis. He explored this

theme by reviewing the complicated history of antitrust litigation involving the credit card associations MasterCard and Visa. Balto was joined in this conversation by Alex Miller (Visa U.S.A). On Friday, Lawrence J. White (New York University), together with Scott Frame (Federal Reserve Bank of Atlanta), reviewed the existing literature on financial innovation, emphasizing how little empirical research has been done and how much more there is still to do.

The first panel examined recent trends in the use and efficiency of consumer payments in the United States. David B. Humphrey (Florida State University and Payment Cards

Center visiting scholar) documented the decline in the share of consumer transactions paid via cash or check and the corresponding rise in the share of payments accounted for by credit cards and debit cards (point of sale) since 1990. Paul Bauer, together with Patrick Higgins (both of the Federal Reserve Bank of Cleveland), found that the unit cost of the Federal Reserve System's small-dollar electronic payment network (the Automated Clearinghouse, or ACH) has fallen 75 percent since 1990 and that there is evidence of further economies of scale. The discussant, Elizabeth Klee (Board of Governors), emphasized the difficult problem taken on in the Humphrey paper because of the very limited data available. Klee also suggested it would be worthwhile to extend the analysis in the Bauer and Higgins paper to cover the most recent period to evaluate the use of ACH for electronic check conversion at the point of sale.

The second panel focused on the role of networks in financial markets. In many networks, including telephone and most payment systems, the value of participating in the network rises with the number of other participants. Sujit Chakravorti (Federal Reserve Bank of Chicago), together with Ted To (Bureau of Labor Statistics), presented a theoretical model to show that merchants accept credit cards even though they are more costly than cash or check payments because their sales will be higher if they accept credit cards than if they do not. This may increase merchants' profits in the short run but, as the authors point out, not necessarily in the long run. Gautam

Gowrisankaran (Federal Reserve Bank of San Francisco) and Joanna Stavins (Federal Reserve Bank of Boston) showed that a bank's decision to provide ACH payment services depends on the concentration of the local banking market and the extent to which neighboring banks have adopted ACH. Discussant James McAndrews (Federal Reserve Bank of New York) argued that the Chakravorti and To paper contributed to our understanding of the welfare implications of pricing in credit card networks. McAndrews said that the Gowrisankaran and Stavins paper had raised the standard for the use of statistical techniques in empirical studies of network effects in payments. He also pointed out competing alternative explanations of their results that cannot yet be ruled out.

The third panel investigated when and how firms in the industry adopt financial innovations. Scott Frame, together with Lawrence J. White and Jalal Akhavan (Moody's), reported the results of their survey of banks'

adoption of credit scoring models for use in small-business lending decisions. They found that larger banks were more likely to be early adopters of this technology, and there was some evidence of geographic clustering of adopters (specifically, in the New York Federal Reserve District). David Nickerson (Colorado State University) and Richard J. Sullivan (Federal Reserve Bank of Kansas City) with Marsha Courchane (Freddie Mac) examined the adoption of Internet banking among banks in the 10th Federal Reserve District. They found that banks that are relatively large compared with their competitors were more likely to adopt Internet banking. They also found that banks facing more concentrated rivals were less likely to adopt Internet banking. Robert DeYoung (Federal Reserve Bank of Chicago) discussed the papers, putting their results in the context of the industry's response to deregulation and new technologies introduced over the last 20 years.

In the final session of the

conference, Robert Marquez, together with Robert Hauswald (both of the University of Maryland), showed how financial innovations and intellectual property can affect lenders' incentives to engage in their traditional activities of screening and monitoring borrowers. This, in turn, will affect the pricing and availability of credit. John R. Thomas (George Washington University Law School) described the recent phenomenon of patenting methods of doing business and how this may soon affect providers of financial services. The discussant, Bob Hunt (Federal Reserve Bank of Philadelphia), described how the Hauswald and Marquez paper could be adapted to evaluate the welfare effects of extending patents to financial intermediaries and why existing criteria for evaluating patent applications might be inappropriate for this industry.

For a detailed summary of the conference and electronic copies of all the papers and presentations, please see our web site: www.phil.frb.org/econ/conf/innovations.html. 