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payments system research briefing

Federal Reserve Bank of Kansas City

A New Era

by Stuart E. Weiner, Vice President and Economist

The U.S. payments system has entered a new era—one that is witnessing a marked decline in the use of paper checks and a sharp increase in the use of electronic payments. Payments system participants are changing as well. Nonbanks are becoming more prominent, moving from the background to the forefront in many payments activities. And, the environment in which financial institutions and nonbanks operate is evolving rapidly, as evidenced by such events as the Wal-Mart lawsuit against Visa and MasterCard and the merger of First Data Corporation and Concord EFS, Inc.

In light of such changes, it is important that the Federal Reserve monitor and analyze key developments. The Payments System Research Department at the Federal Reserve Bank of Kansas City was established four years ago for this purpose, and with this issue is introducing a new publication, *Payments System Research Briefing.*

Payments System Research Briefing, which will be published three times a year, will focus on a variety of payments system issues. Featured articles will be similar to those previously found in the "E-Files" column of *At Your Service,* a long-standing Kansas City Fed publication. Also included in the *Briefing,* on a periodic basis, will be special announcements and a listing of upcoming activities of the Payments System Research Department.

A Payments System in Transition

The U.S. payments system is moving from one that is dominated by paper to one in which electronics are becoming increasingly important. According to a 2002 Federal Reserve study, checks' share of total retail noncash payments volume fell from 77 percent in 1995 to less than 60 percent just five years later. Electronic payments' share, meanwhile, rose from 23 percent to 40 percent. A follow-up study is currently under way and, in all likelihood, will show that this shift is continuing unabated.

During the 1995-2000 period, check volume declined at a 3 percent annual rate (Chart 1). Credit card, automated clearinghouse (ACH), and debit card transactions, in contrast, grew at double-digit or near double-digit rates. This surge in electronic payments has had two fundamental sources: an increase in traditional uses of electronic payments methods and the introduction of new uses of existing electronic methods. Included among the latter are the use of credit cards, debit cards, and the ACH for Internet payments, as well as the use of the ACH for check conversion at the point of sale and at the lockbox. Further, while radically new payments infrastructures have not arisen, innovative new "front-ends," such as those associated with person-to-person payments, stored-value cards, and contactless payment devices, have also appeared and are drawing on existing infrastructures.

Moreover, the check process itself is becoming more electronic, as truncation and imaging become more widespread. For the Federal Reserve System as a whole, in 2003 more than 845 million checks were truncated, and images were created for nearly 86 percent of those items. With the enactment of Check 21 in late October 2004, it will become even easier to move toward a more electronic check process because banks will be provided with additional options for processing image-based payments.

In addition to the shift toward electronic payments instruments and processes, the payments industry is also experiencing dramatic market change. Evolving pricing agreements, heightened consolidation, and a rise in nonbank participation are key driving forces.

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Nowhere is this more apparent than in the debit card industry. The landmark Wal-Mart vs. Visa/MasterCard settlement last year, for example, eliminated the agreement whereby merchants who accepted Visa and MasterCard credit cards were also forced to accept the Visa and MasterCard offline (signature-based) debit cards, which typically carried relatively high interchange fees. Card acceptance policies, interchange fees, switch fees, and consumer PIN fees consequently figure prominently as participants re-evaluate pricing strategies.

Like much of the rest of the industry, the ATM and debit card industry is also seeing striking consolidation (Chart 2). In the mid-1980s, there were 130 regional ATM and debit card networks. Today, there are just 30 regional networks, and the top three—Star, NYCE, and Pulse—have seen a sharp increase in market share. Chart 2 provides a visual overview of this "sweep" of consolidation. The chart shows the history of all regional ATM and debit card networks during the past 30 years. Those in dark blue no longer exist. Those in light blue have survived or merged with other networks.

Another fundamental change in the payments industry has been the rising visibility of nonbanks. Nonbanks have always been a key component of the nation's payments system, contributing to the breadth, efficiency, and competitiveness of the industry. What is new is nonbanks' higher visibility and greater prominence. Nonbanks are pervasive, both in traditional and emerging payments areas. They have a market presence in at least 35 distinct payments activities and play a role in nearly 30 transaction types, typically working with banks and other nonbanks. The merger of First Data Corporation and Concord EFS, Inc., two large nonbanks, highlights nonbanks' importance. For nonbanks and banks alike, continued technological advances, the trend toward additional outsourcing, and the complexity of partnering relationships raise new operational risk issues.

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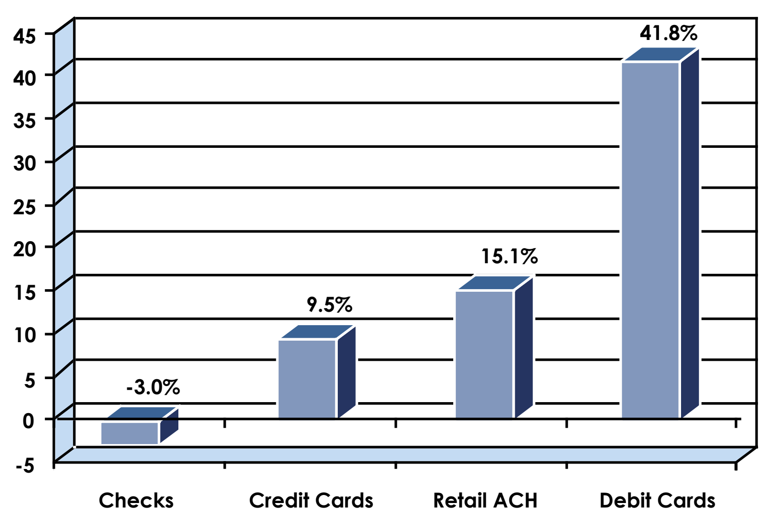
Chart 1

Payment Types: Annual Growth 1995–2000



Source: *Federal Reserve Bulletin,* August 2002, p. 361

This unprecedented dynamic environment presents both challenges and opportunities for banks, the traditional providers of frontline payments services. Whether national in scope or community oriented, banks and other depository institutions face a myriad of decisions: what products to offer, with whom to partner, what networks to join, and so on. These decisions are unlikely to get any easier.

Payments System Research Department

The Payments System Research Department has conducted research on several of the issues noted above. Available for downloading online, at *http://www.kc.frb.org/FRFS/PSRhome.htm,* are the following books, journal articles, working papers, and newsletter articles:

Books

- *A Guide to the ATM and Debit Card Industry*
- *Nonbanks in the Payments System*

Journal Articles and Working Papers

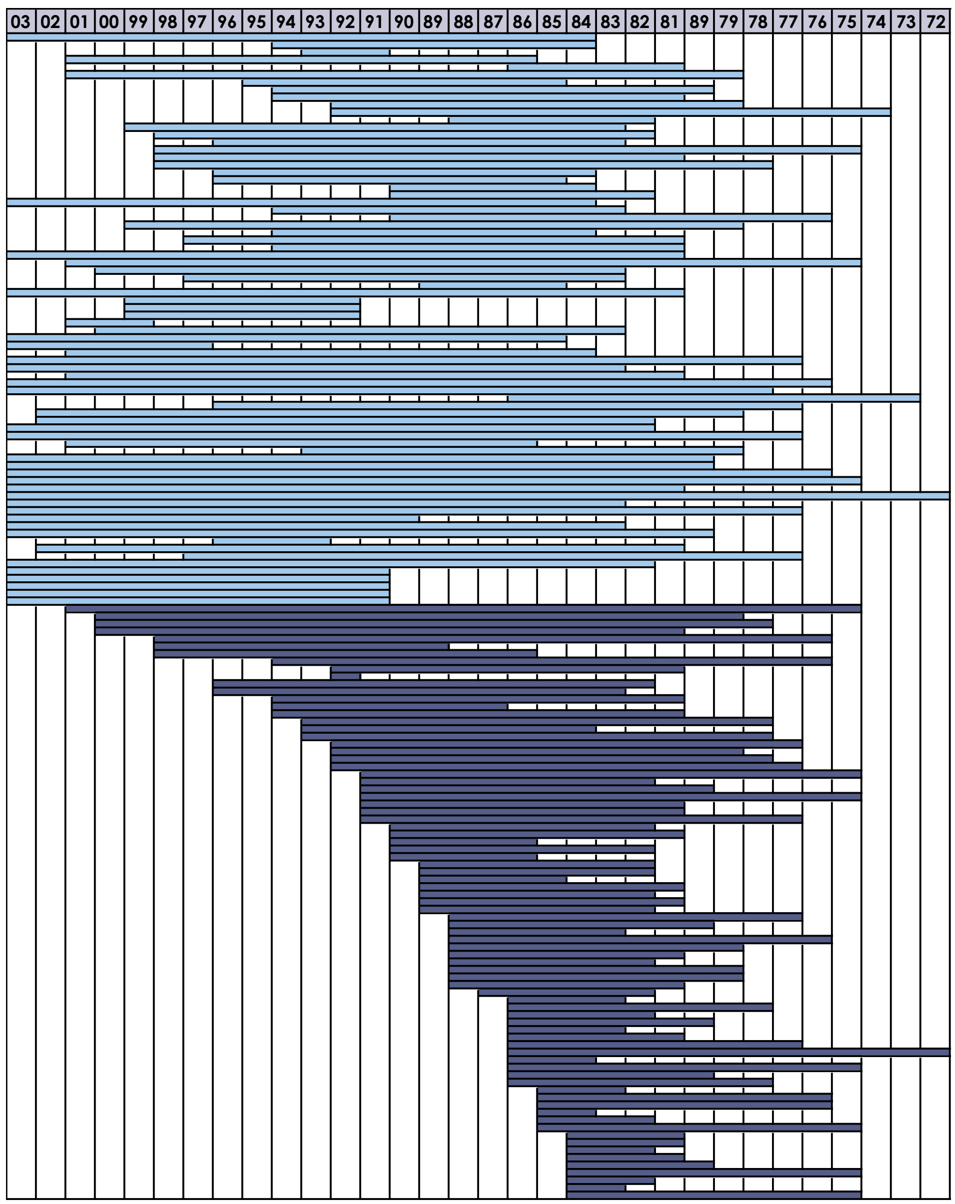
- Community Bank Access to Payment Card Networks: Has It Become More Expensive?
- Electronic Payments in the U.S. Economy: An Overview
- Financial Innovations, Strategic Real Options and Endogenous Competition: Theory and an Application to Internet Banking
- Technology Adoption and Consumer Payments: Evidence from Survey Data

Newsletter Articles

- Banking on the Internet
- EBPP: How Sharply Will it Grow?
- Electronic Checks on the Upswing
- Growing Acceptance of Account Aggregation
- The Many Uses of Stored-Value Cards
- Nonbanks More of a Market Force
- The P2P Payments Proposition

Chart 2

Timeline of Regional ATM and Debit Card Networks 1972–2003



Source: Updated Chart A1, *A Guide to the ATM and Debit Card Industry,* Federal Reserve Bank of Kansas City, 2003, p. 94.

Given the pace of change in the payments industry, there will be no shortage of topics to explore in the months and years ahead. The Payments System Research Department will report on industry developments and departmental research in future issues of the *Briefing*. Comments and feedback are always welcomed.

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website: www.kc.frb.org/frs/psrhome.htm

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