



INSIDE THE VAULT | FALL 1996

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If It's Not Paper, Can It Still Be Cash?

The Changing Face of the Nation's Payments System

Not long ago, teaching about money usually required coins and paper bills. Today, teachers must incorporate the abstract, knowing that students may be more likely to think of the payments system as ATM cards and debit cards rather than coins and paper.

Here's a brief overview of the basics of electronic payments—their benefits and drawbacks, related issues, and the role that the Federal Reserve plays in this advancing component of the payments system. The text is adapted from the Federal Reserve Bank of St. Louis 1995 Annual Report.

The Payments System

When we talk about the nation's payments system today we're talking about mushrooming choices. In essence, the **payments system** encompasses any mechanism that allows parties in an economic exchange to transfer value. These mechanisms range from the simple—you hand over 50 cents in coin at the soda fountain and get a soft drink in return—to the complex—Corporation X transfers \$1 billion via computer network to 15 different financial institutions in five different countries in 3.2 seconds, the amount of time it takes to sign a check.

Today the U.S. payments system is the largest in the world with an average of 1.4 billion payment transactions totaling more than \$1.5 trillion being processed daily. At their core, many new types of electronic payments are simply electronic delivery vehicles for traditional methods of payment. Some versions of electronic currency are connected with your bank account; others are not. Many new payment methods are initiated on PCs; others involve the use of telephones or interactive TV.

Inherent in these forms of electronic payments is convenience. Clearly, convenience sells in our economy. 24-hour groceries, drive-through laundries and fast food are all a part of the services we have come to expect. At a store in St. Louis, you can get your hair cut, your shoes shined, your oil changed, and your car washed all in one place. And America's appetite for convenience hasn't been ignored by the financial services industry. Credit cards, drive-through tellers and ATM machines in shopping malls are evidence of that.

Risks and Rewards of Electronic Payments

Technological innovations in the payments system are providing consumers with opportunities to increase not only convenience in the way we pay for goods and services, but also efficiency and reliability of payments. With such innovations, check fraud and currency counterfeiting could be curtailed. The cost of processing and delivering paper checks, estimated to be as much as one percent of the nation's Gross Domestic Product, could be drastically reduced.

On the other hand, emerging electronic payments options are not without risk. For one, businesses must first invest in the infrastructure necessary for widespread merchant and consumer use of electronic payment methods, such as retrofitting ATM machines or installing point-of-sale terminals. In addition, considering that 80 percent of all retail purchases in the United States are settled in cash, the vast majority of them for less than \$20, providers of goods and services will need to make a strong case for the new payment alternatives to gain consumer acceptance and persuade people to change.

What's In A Card?

Many American's are already familiar with something called the **stored-value card**. This card is a credit-card-like instrument on which a monetary value is placed. For example, you give \$20 to the photocopy center, the salesperson gives you a card with \$20 of value, and the value is depleted as you make copies. Colleges have begun using such a system to allow students to buy books, pay fees, purchase a meal, do laundry or use an on-campus vending machine.

What separates the stored-value card from **smart cards** is that smart cards are embedded with a microchip that can recognize multiple uses. Microchip technology enables holders not only to keep cash value on their smart cards for purchases but also to charge a purchase to their credit card account, for example. With the smart card, you are able to transfer value from your bank account to your home PC to the card. Currently an estimated 750,000 households are banking through their computers—paying bills, applying for loans, tracking their checking, savings and money market accounts, as well as transferring funds among them, even getting stock quotes. Projections call for that number to increase to as many as 13 million by the year 2000.

Does this mean the end of cash, checks and credit cards as we know them? Probably not. These traditional payment methods are still the payment of choice for most of the population. Evolving payment options do, however, signal an approaching crossroads in the payments revolution. As with any change, the questions may at first outnumber the answers. There are several public policy issues facing government officials, regulators and the public. How will consumers know if an issuing authority is legitimate? What happens if an issuing authority fails? How will taxes be collected on electronic payments? To what extent is the information stored on your computer secured?

What's the Fed Got to Do With It?

In 1913 the Federal Reserve System was established to provide a stabilizing element to the nation's banking system. The Federal Reserve was also given the responsibility to ensure the integrity and efficiency of the nation's payments system. These responsibilities include maintaining bank reserve accounts, furnishing currency for circulation, facilitating the clearance and collection of checks, transferring funds electronically, and acting as fiscal agent for the Treasury.

In carrying out its mandates, the Federal Reserve has over the years worked actively within the banking industry to make the payments system more efficient, reliable and predictable. For example, the Fed improved the efficiency of the payments system significantly with the creation of **Fedwire**, an electronic funds transfer system that links Reserve Banks to financial institutions and government agencies. Having operated for more than 70 years, Fedwire remains one of the most durable as well as critical, payments mechanisms in the United States. More recently, the Federal Reserve Banks have begun offering **check imaging**. With check imaging, customers receive no canceled checks. Instead, customers may receive monthly sheets of paper with 12 to 18 check images per sheet. Using high-speed processing equipment, the St. Louis Fed is capturing images of government checks and archiving them for the U.S. Treasury and U.S. Post Office.

While policy issues and practical uses of new technology surface, we should not lose sight of the fact that for any emerging payments technology to achieve long-term success, it must achieve three principal goals: It

must maintain high levels of integrity, accessibility and efficiency. This has remained the challenge of payments throughout history. **Integrity** means keeping risk in the system at a minimum, as well as maintaining reliability and broad public confidence in the system's operation.

Accessibility means making the payments system conveniently available through one or more providers, regardless of the income or socioeconomic status of the user.

Efficiency means ensuring transaction speed, encouraging innovation and demanding cost-effectiveness. These guiding principles will be fundamental in formulating future Fed policy.

What Lies Ahead?

As today's payments system transforms itself, it won't always be easy to judge the value of a particular change, because its impact may not be exclusively positive or negative. In general, if a change leads to less risk, greater efficiency or broader accessibility, it will be good for the U.S. economy. If it increases risk, limits access or makes the system less reliable, it could threaten economic expansion and stability.

As a central bank dedicated to the principles of free markets and private enterprise, the Federal Reserve has responsibility to let market forces, by and large, shape change in the payments system. At the same time, however, the Fed is committed to fulfilling its responsibility to protect the public's confidence in the payments system by focusing on the long-term goals of integrity, accessibility and efficiency.



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Q & A

Why is the government beginning to use electronic payments?

Electronic benefits transfer (EBT) is the electronic payment of federal or state government cash assistance benefits to eligible recipients who don't have bank accounts. The cost of delivering a benefit via paper check is \$.43, but less than \$.02 through the Automated Clearing House (ACH). If all federal government payments (including benefits) were sent electronically, the Treasury estimates an annual savings of approximately \$141 million in administrative costs.

Are people forced to receive federal benefits electronically?

Recent legislation requires new recipients to receive benefits electronically and by Jan. 1, 1999, all recipients will receive federal benefits electronically.

Why would individuals want to receive payments electronically?

In addition to reducing administrative costs, electronic delivery offers advantages to benefits recipients as well as merchants. For recipients, electronic delivery is a safer and more reliable method of receipt, especially for recipients without bank accounts. Paper checks can be lost or delayed in the mail and must be converted to cash as a lump sum in a single transaction, leaving recipients vulnerable to larger losses when carrying cash. With electronic delivery, recipients can choose when and where to withdraw or spend the benefits. For merchants, electronic benefits are more convenient and less costly than cash or food stamps to process and deposit.

How can individuals receive electronic payments if they do not have bank accounts?

Although 85 percent of the federal cash benefit recipients have bank accounts and could receive ACH credits electronically, EBT accommodates the remaining 15 percent who are "unbanked." Under EBT, the government chooses the financial institution. Cash assistance funds owed to all recipients are deposited into one large pooled account containing an individual sub account for each recipient. The financial institution issues EBT cards, and trains the recipients how to use the card at ATMs and merchant locations.



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Economic Snapshot

3rd Quarter 1996

	Q4-95	Q1-96	Q2-96	Q3-96
Growth Rate—Real Gross Domestic Product	0.3%	2.0%	4.7%	2.0%*
Inflation Rate—Consumer Price Index	2.4%	3.2%	3.8%	2.3%
Civilian Unemployment Rate	5.6%	5.6%	5.4%	5.2%



How does the federal government measure unemployment?

The Bureau of Labor Statistics (BLS) conducts a monthly survey called the Current Population Survey. The BLS randomly chooses about 58,000 households to survey.

It counts people as unemployed if they:

- Are not working, but have actively looked for work in the last month
- Were laid off from their previous jobs and are waiting to be recalled by the same firms
- Are waiting to start new jobs within the next month