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The Evolving U.S. Payments System:
A Central Banker's Viewpoint

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INTRODUCTION

Good morning and thanks for inviting me to be a part of this very important conference. As the pace of change accelerates in the payments system, it's imperative to step back in forums like this and assess what's happening and where we're headed. I'm happy to be here today to give you a central banker's view of these changes.

You heard Ray Hodgdon say that I went to college on the West Coast and spent the first half of my career on Wall Street. But I've always respected the simply stated wisdom of Midwesterners. Today, I plan to follow the advice of Mark Twain, a well-known Missouri author and folk philosopher. He said "There are two times in a man's life when he should not speculate; when he cannot afford it and when he can."

Twain was speaking in a different context, of course, but his advice also applies to speculating about future events. So today, I'll avoid predictions and focus on what I believe we should aim for as the payments system evolves. Specifically, I want to raise three questions regarding the payments system and provide you with some answers, as we at the Fed see them.

First, why does a central bank care about how the payments system operates? Second, what goals should payments system participants seek to achieve as the system evolves? And, finally, how might the Federal Reserve help shape the evolution of the payments system?

Central Bank--Why Should We Care?

Perhaps a short definition and a look at history will help describe why the Federal Reserve cares about how the payments system operates.

First, a definition: The payments system is a set of contractual arrangements, account-holding institutions and operating facilities used to transfer value. It settles payments primarily for simple day-to-day activities, such as retail transactions. It also settles complex and large-value transactions, such as those arising from trading in financial instruments.

To operate well, markets for both goods and services need a reliable mechanism for settling payment obligations. An effective payments system also requires a great deal of cooperation among the providers of payments services. In short, a sound payments system promotes both economic growth and financial stability.

Throughout history, Congress has made it clear that it believes the overall integrity and efficiency of the payments system are important components of a strong economy. Congress also made it clear from the outset that the Federal Reserve's mission as the nation's central bank includes certain responsibilities for payments.

Before the Federal Reserve System was created in 1913, the U.S. system for collecting checks was slow and payments system shocks periodically had adverse effects on economic activity. Congress concluded that a governmental entity was needed to reduce these inefficiencies and disruptions. The Federal Reserve worked to make the payments system more efficient and stable by establishing a nationwide check clearing system, and lending to banks through a discount window.

Later, Congress broadened the Fed's payments role through the Monetary Control Act of 1980. This legislation did two things. It required all depository institutions to maintain reserves in accounts at the Reserve Banks, and it granted these institutions access to Federal Reserve services that are priced to encourage competition. Reserve account balances are an important interbank settlement medium.

The Expedited Funds Availability Act of 1987 gave the Federal Reserve broad regulatory authority to effect changes in the payments system that would lead to improved efficiencies.

As a central banker, then, I wear several hats: I'm a policymaker concerned about the health of the U.S. economy and the safety and reliability of the payments system. I'm a bank supervisor responsible for promoting sound banking practices. And, I'm the CEO of a company that provides payments processing services to banks and the U.S. government.

At first glance, you might diagnose these multiple personalities as schizophrenia. But when you examine them closely, you see that they actually are complementary and synergistic roles for a central banker.

Inherent in these combined roles are some specific concerns about the payments system. Let's look at some of them. First, central banks throughout the world share a common concern for systemic risk in financial markets. The payments system is one of the first places where financial stress can be seen. Liquidity shortages can lead to bank failures and send shock waves through the system. Bank failures disrupt economic activity by preventing bank customers from making their planned purchases. Depositors at such failed banks may not have access to their transactions balances for some time.

In addition, the losses that bank failures impose on depositors tend to reduce their planned purchases. Some borrowers may not be able to arrange alternative sources of credit on short notice. And, of course, a failure of one bank also can cause other banks to fail, since they extend credit to each other. If a second bank fails, the chain of events starts over again, and the disaster can ripple throughout the country.

This is a hypothetical situation, of course. It is a central bank's responsibility to prevent a temporary problem at one institution from causing disruption throughout a nation's economy. Most central banks deal with systemic risk in two ways: discount windows and net settlement services.

In a time of crisis, the Federal Reserve provides liquidity for solvent institutions and maintains the integrity of the payments system so the real economy can continue to perform efficiently. By lending to banks through the discount window, the Fed prevents operational problems, or failure of some banks, from causing other solvent banks to default on their payment obligations as well.

At the Federal Reserve, access to the discount window and supervision and regulation are linked. Because the Fed is the creditor of the entities that borrow, we extend access to the window on a routine basis only to those that are supervised and regulated as depository institutions.

This link strengthens the banking and payments systems in several ways. It allows the Fed to make well-informed credit decisions and, thus, determine whether a problem is merely a temporary liquidity shortage or a more severe situation that threatens a bank's solvency. Conversely, supervision and regulation by the Fed also limit risk in the payments system by encouraging sound business practices that reduce the chances of bank failures.

The role of net settlement in limiting systemic risk is similar to discount window lending. In most countries, participants settle net positions through debits and credits to their reserve accounts at the central bank. In the U.S., Fedwire is a real-time gross settlement system. Fedwire transfers are final to the receiving bank. This is so even if the sending bank fails later in the day because the Fed has assumed the credit risk and guaranteed the payment.

Fedwire is important not just to the operation of the federal funds market, but also to the market for U.S. Treasury and agency securities. Ownership of these securities is recorded in the Fed's computer system and can be transferred to new owners electronically. The delivery-versus-payment nature of the transfer of securities and reserves eliminates settlement risk for the parties to the transaction.

I can sum up what I've said so far about why a central bank cares about the payments system with two words: market stability. We must strive for a system that functions effectively under everyday conditions and that continues to function reliably during times of stress in the financial system.

In addition to market stability, there are other reasons a central bank cares about payments. One reason is efficiency. The proper handling of payments is an activity that consumes resources. For example, one study suggests that the processing of checks costs the U.S. close to 1 percent of GDP each year. Reducing these costs could improve the productivity of the U.S. economy, reduce the cost to government, which is a major user of payment services, and produce a variety of other economic benefits. In addition, a payments system that cost-effectively limits fraud consumes fewer resources in the long term.

There are circumstances in which the central bank needs to take the lead in making the payments system more efficient. To quote another Midwesterner, "The legitimate object of government is to do for a community of people whatever they need to have done, but cannot do at all in their separate and individual capacities." Those are Abraham Lincoln's words. He was speaking about government in general, but his message also applies to the historical role of the Federal Reserve.

When interstate banking was restricted by law, the Federal Reserve became an inter-regional clearer of checks. Fedwire provided an inter-regional means of electronic payments. And, the Federal Reserve invested significant resources to develop ACH. These payments services are no longer the exclusive domain of the Federal Reserve, but we worked with the industry to perfect each of them, set standards and shape their development. Today, we may be at a similar juncture with electronic check presentment, or ECP. I'll say more about that later.

Still another reason the central bank should care is to assure access to users of the payments system. The payments system should not only be safe and efficient, it should also be reasonably accessible to all participants. One reason the Fed has provided payments services in the past has been to ensure that all banks had access on reasonable terms. This was particularly important to banks in remote locations and to those with credit problems because it allowed them to participate in numerous markets that otherwise might not be accessible. In either situation, private processors might have found it too costly, or risky, to serve these banks.

The role of the Federal Reserve in providing access to users in these situations may change. Improved technology and better risk controls may make it more cost-effective for private payment intermediaries to serve a wider clientele. On the other hand, payments services of the Federal Reserve may continue to be a necessary, affordable option for some payment system users.

A final reason a central bank cares about the payments system is monetary policy. As we move from paper to new types of electronic payments, questions will arise about the proper measurement and definition of money, risks imposed and security issues.

For example, should the monetary value put on stored value cards be counted as part of the money supply? How would we measure that value? These may be rather simple questions to answer, particularly if we think of smart cards as an electronic version of a traveler's check.

Other questions may be more complicated, yet may be important to the measurement of money, the conduct of monetary policy, and the maintenance of public confidence in the payments system.

Goals of Payments System Participants

I've given you several reasons why a central bank should care about the payments system: market stability, efficiency, accessibility and monetary policy. These concerns relate to the essential characteristics of a safe and reliable payments system and are similar to the goals I suggest for the future.

The payments system is a rather arcane, but essential part of our national economy. Very few bank customers know much at all about how a payment is processed. They just know the important part: when they use currency, a check or an electronic payment, they rarely, if ever, have a problem. That's good. And, it's one of the reasons the U.S. economy remains strong and resilient.

The banking industry's challenge in future decades, and the Federal Reserve's responsibility, will be to ensure that the U.S. payments system remains worthy of public confidence. That's the ultimate goal we'll need to attain, but as we work at it, there are some other goals we'll need to achieve as well.

So let's turn now to the second question I said I'd discuss today: What goals should payments system participants collectively seek to achieve in the future?

To earn the public's continued confidence and serve the economy well, payments system participants will need to achieve three principal goals: We must maintain high levels of integrity, accessibility and efficiency.

Integrity encompasses both the control of payments system risk, as well as the need for broad public confidence in the payments system. The evolving system should be dependable, reliable and risk-averse.

An accessible system should allow reasonable access through one or more providers to all users, regardless of size or location. The Federal Reserve need not, and should not, be the only way to access the payments system.

An efficient system should assure transaction speed, encourage continual innovation and be cost-effective. Since fraud drives up costs, reducing it will make the system more efficient, as well as promote public confidence.

The changes happening in today's payments system will need to be examined and managed collectively by all participants to achieve these goals. It won't always be easy to judge the value of a particular change, though, because the impact may not be exclusively positive or negative.

In general, if the change leads to less cost, greater efficiency and broader accessibility, it will be good for the U.S. economy. But if it increases risk, limits access or makes the system less reliable, it may threaten economic expansion and stability.

In many instances, however, payment system participants will have to make carefully considered trade-offs between advantages and disadvantages. For example, a change that reduces risk, but significantly increases costs, may not be worth the price participants would have to pay. Likewise, affordable changes that increase the perceived risk might not be desirable if they jeopardize public confidence.

This need to seek a careful balance is why it is imperative for us to keep all the goals in mind as we deal with today's payments system changes.

Payments System Changes--Four Trends

In discussing these goals, I've talked about them as ones all payment system participants need to pursue. Now, let's shift to the Federal Reserve and talk about how we might influence the evolution of the payments system.

As I promised earlier, I won't presume to have 20/20 foresight about the future. But you don't have to be clairvoyant to see some obvious trends that have important implications. I'll briefly describe these trends, and then I'll give some examples of specific things we are doing.

First among these trends is the importance of the international marketplace. Today's economy is clearly a global one, and settlement of the dollar side of foreign exchange transactions represents a significant share of large-dollar payments today. Small-dollar cross-border transactions will become increasingly important as well. The Federal Reserve must continue to do what we can to make international settlements more efficient and less risky. You'll hear Bruce Summers from the Federal Reserve Bank of Richmond speak about this subject this afternoon.

A second trend is consolidation of the banking industry. In the past decade, the number of U.S. banks has declined steadily from more than 14,000 to a current level of 11,000. Perhaps 7,000 or fewer separate banking institutions will remain once the full effects of interstate banking are felt.

The restructuring has several implications for the payments system. Service providers, like the Federal Reserve and others, must serve a national clientele. For example, many banks will operate in more than one Federal Reserve district. Consequently, they will, and should, expect some standardization and centralization of payments system services to make their own operations as efficient as possible.

The service providers also may find that different participants require different services. Larger banks may use the Federal Reserve only as a link to smaller institutions or, through Fedwire, to obtain final net settlement.

Smaller banks may use service bureaus and third-party providers more frequently. On the other hand, some banks, particularly smaller ones, may rely on the Federal Reserve for access to the payments system and may expect the Reserve Banks to provide access to technology-based services at a reasonable price.

Technology, of course, is another trend. Each morning's newspaper reports something new. Innovative technology, or new uses of technology, are allowing us to process payments differently and are changing the form of payment altogether.

Both retail and business customers are becoming more comfortable with technology. As younger generations enter the marketplace, electronic payments could increase very dramatically. This suggests that payments system participants will have opportunities, through investment in technology, to provide new and possibly more efficient payments services.

Changing consumer behavior and technology are related to yet another trend in the payments system--the emergence of non-bank participants. Technology has made it possible for non-depository organizations--such as credit card companies, phone and cable companies, and software vendors--to enter the payments business. And, consumers have shown a willingness to use these non-bank payment options. As these non-banks become more active, the form of payments system risk may shift and change.

I'm certain that another question you hoped I'd answer today would be "How does the Fed view non-banks in the payments system of the future?" Although I don't have a definitive answer to that question, once again, I can see some general trends.

Federal policy on competition among depository institutions has changed substantially over time. From the 1930s until the early 1960s, the policy was to restrict competition in order to reduce the chance of bank failures. New bank charters were denied if the entry of the bank would reduce profits of those already operating in the markets. Congressional legislation and U.S. Supreme Court rulings in the early 1960s shifted the emphasis from inhibiting competition to promoting competition in banking markets.

Now, Congress is debating changes that will make traditional banking markets even more accessible to non-banks. But even the Congressional debate is somewhat moot since market forces have already blurred the distinctions between banks and non-banks.

Exactly how far market forces and federal policy will go in encouraging competition between banks and non-banks isn't certain. One way or the other, however, it's obvious that banks no longer have an exclusive franchise on many financial services, including payments.

From the Federal Reserve's perspective, we must balance any risks these non-banks may pose to the payments system against the economic advantages to be gained from innovation and increased competition. We must allow market forces to create efficiencies and improvements that will benefit the economy and not stifle innovation. Yet, as the nation's central bank, we have a responsibility to establish incentives to control and minimize risk for the payments system and to seek a level playing field among banks and non-banks.

FEDERAL RESERVE'S INFLUENCE

Respect for market forces is an important part of the answer to the third question I posed in the introduction to my speech: How will the Federal Reserve influence the payments system of the future?

Will Rogers, another Midwesterner, said "The business of government is to keep the government out of business--that is unless business needs government aid." He was poking fun at business leaders who rail against government interference, but profit from government programs.

As a central bank dedicated to the principles of free markets and private enterprise, the Federal Reserve has a responsibility to let market forces, by and large, shape and determine change in the payments system. We believe the payments process will generally work best when ruled by competitive forces in a free market environment. Even so, at times we might encourage developments that promote the public welfare, or discourage others that aren't in the public's best interest. We must protect the public's confidence in the payments system through leadership, through participation as a provider of certain services, and through supervision and regulation.

In summary, as the payments system changes, our mission at the Federal Reserve will be to foster the integrity and accessibility of U.S. dollar payments and settlement systems, in support of U.S. financial stability and economic growth in a global context.

Before I close, I want to give you some examples of initiatives we think will aid the market.

First, we have a new management structure for payments system activities that will help us focus on the future.

I am chairman of the Financial Services Policy Committee that sets long-term strategic direction for Federal Reserve System activities in financial services. We also oversee the activities of our product offices which have been realigned to more closely match the markets we serve for wholesale, retail and government payments.

We expect this new management structure will help us plan more strategically and make us more responsive to market changes. We are balancing System-level direction and standardization with local autonomy in addressing and meeting the needs of the individual markets. We will be able to give customers the best of both worlds--System-wide consistency of services plus the local market knowledge and personal attention offered by the regional Reserve Banks.

We also must continually study the risk of new payments mechanisms as they evolve. Through economic research, we are learning much more about current and emerging forms of payments. In fact, the Federal Reserve has selected a research group, based at the Cleveland Bank, to specialize in payments system research and foster related studies throughout the System.

While we have many economists who study the payments system, the creation of this research group represents an even greater commitment to analyzing such issues and planning for the future.

Second, we are aiming to set a high standard for efficiency, reliability, accessibility and predictability of our services.

We are modernizing and improving the service levels of our mainframe-based payments applications. Funds transfer, book-entry securities and ACH systems were once operated separately in each District. Now, new software programs have been developed, and we are converting all services to a single national system processed at one location.

Soon, each wire transfer will go through one network and be delivered to, processed by, accounted for, and dispatched from a single mainframe computer with multiple back-ups. ACH transactions will be centralized in 1996, and book-entry will be centralized in 1997.

Third, we will provide leadership in the shift from paper to electronics.

As a central bank concerned with economic efficiency, the Federal Reserve has an obligation to encourage the transition to electronic processing. We'll do this in several ways, such as improving our own ACH services and actively educating users about the advantages of electronic payments. This will help to overcome inertia and eliminate confusion, as we target businesses, banks and consumers to heighten awareness of ACH. Already, the Federal Reserve and NACHA are working together to promote the use of electronic payments by many of the largest corporations and charities in America.

However, checks won't disappear overnight. And, because they will continue to dominate the volume of transactions for some time, it will be important for payments system participants to use technology to make check processing more efficient. Paul Connolly, from the Federal Reserve Bank of Boston, will talk more about ECP in tomorrow's session.

ECP offers great potential to improve efficiency and reduce costs, including float. ECP and imaging technology can support a long-term transition between paper and electronic origination of payments. If bank customers are comfortable with receiving images with their statements, or images of particular checks when needed, they are more likely to accept other technology as it evolves.

When checks are collected in paper form, they are handled an average of 12 times. With imaging and truncation, checks will be handled just two times on average. The Fed has been at the forefront of testing the application of imaging technology to check processing since 1985. Many Reserve Banks now offer imaging support for truncation services. We also are currently testing imaging with U.S. Treasury checks and foresee significant cost reduction in handling these items.

Fourth, we are interested in making sure all the various parts of the system continue to function smoothly as new and different players enter the payments business.

This means we need to develop relationships with these new entrants. We want to work with all participants to set new payments system standards, deal with payments system risk and define best practices for entirely new forms of access to and use of the payments system.

The Federal Reserve will not be directly involved in processing all payments by any means. As the central bank, however, we have a responsibility to understand and seek to minimize the overall risks.

Finally, in all of these activities, we are seeking to engage you and other participants in thinking strategically about the future.

The goals I mentioned earlier cannot be achieved by the efforts of the Federal Reserve alone. We want to establish an interactive working environment among all payments system participants and maintain a continual dialogue at the national and local levels.

The objectives of this interaction will be to produce consensus and foster action. This approach has always served us best. Some years ago the banking industry and the Fed realized that we needed to make changes in the collection of checks. Technology was changing, and the volume of checks was skyrocketing. How could we best keep up? The cooperative efforts of interested parties led to the evolution of the MICR line on all checks. Do you remember that?

The development, and continuing evolution, of ACH also did not occur without significant cooperation between the Fed and the banking industry. ACH development wasn't that long ago, so I am sure you remember that.

We want to join with you to see future successes in the payments system like the ones I just mentioned. We want to help payments system participants move forward with innovations, particularly when formation of a critical mass is essential.

The switch from paper to electronics is an important example of how we can work together. Interest in developing ECP is high, but there is no broad-based, long-term plan for making ECP work on a national scale. That's why the Fed is putting together an ECP industry advisory group. This group will meet for the first time later this month. Today, many different models exist, and it seems unlikely that any of these individual efforts will bring about comprehensive, widespread electronic presentment. Once we have common standards, all of us must work together to win the public's support.

Consumers and businesses use paper checks because they are convenient and cheap. However, as I mentioned earlier, they are very costly to society as a whole. Working together, we can identify and implement incentives for consumers and businesses to use electronic payments. We need to look at how to educate our customers about the benefits of electronic payments and encourage them to make the transition. We need to develop marketing programs that continually promote electronic payments. And, we need to review our pricing of the various types of electronic payments as compared with paper checks to provide appropriate economic incentives.

CONCLUSION

In bringing this discussion to a close, I want to reiterate an important point. Leading the payments system of the future is not something that will be done by the Fed alone, or any single entity for that matter. The system that will be best for the U.S. economy will evolve from many ideas from many different sources.

I hope I've enlightened you on the Fed's view of the evolving payments system. The questions I raised are important for all of us to consider. But just talking about them won't be enough. It will take action, greater involvement, collaboration, research, problem-solving and many forms of leadership. It also will require all of us--banks, non-banks, and the Federal Reserve--to work together.

Today's payments system is a complex set of payments instruments, processing infrastructures, laws, rules and account-holding institutions. Tomorrow's system will provide more choices, be more high-tech and become even more complex. If we focus on the long-term goal of an efficient, sound and secure payments system, we can reap tremendous economic rewards. We at the Fed are focused on the future, and we invite you to join us in meeting the challenges of tomorrow's payments system.

Thank you for giving me this opportunity to speak with you today and thank you for being so attentive.