U.S. Retail Payments: Change, Challenge and Opportunity

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Good morning. This conference is taking place at a time of tremendous change, challenge and opportunity for the U.S. payments system. The events of September 11th and the days that followed that tragedy, reminded us once again that the smooth functioning of the economies of the U.S. and the world depends on the resilience of the U.S. payments system. Without the assurance that trillions of dollars were flowing, and that markets were liquid, the U.S. financial system could have added to the larger problem. That didn't happen, in part because of your efforts and ours in the Reserve Banks. And it is our joint responsibility to ensure the payments system remains strong and resilient--even as we address the change, the challenges and the opportunities that face us.

I spoke to this group four years ago about the Reserve Banks' evolving role in the payments system and - as the nation's central bank - our responsibility for ensuring that U.S. payments systems are resilient in the face of expected challenges and crises. At the time, we saw Y2K preparation as the major challenge to system resiliency. We now know that the unthinkable can happen and that we must be prepared for it.

The payments system today faces sources of significant change--change in the form of new payments choices by consumers and businesses, driven by the realities of an ever more competitive and technologically sophisticated economic environment. These sources of change create challenges--how to become more efficient and use technology to create even more innovative payments products. Moreover, as we see the walls between payment types slowly erode--as checks morph into ACH items at the point of sale, or in a lock box service, for example--we see opportunities to reshape the payments system, and finally realize that electronic vision that has eluded us for so long. And some of us may be tempted to think of that age-old admonition "Be careful what you wish for." The evolution to a fully electronic retail payments system, while clearly the right move, brings with it the inevitability that the comfortable world of payments processing that we have known for so long will disappear forever.

Why do I state this case so dramatically? Well, in my role as chair of the Reserve Banks' Financial Services Policy Committee, I am seeing a pace of change and innovation unlike any other time in my 30 years or so in the payments business. This morning I'd like to outline three sources of change for us, and for you as well, and put them in the context of the missions of Reserve Banks in the payment system.

But most of all, I want to highlight the strategic opportunities afforded by all of this change -- opportunities for improved payment and information services, opportunities to gain efficiencies and ultimately opportunities for all of us to work together to improve this nation's payment system. In particular, I will talk about the opportunity to make Electronic Check Presentment (ECP) viable as we seek ways to reduce the paper flow in the collection process. I also want to talk about the evolution we are making together in image capture and archive. We all have to make decisions about further investments in the underlying check processing infrastructure and Reserve Banks are making strides here. And finally, I want to discuss our efforts to support the initiation of fully electronic payments through the ACH infrastructure and the application of web technologies.

So what are the three sources of change? Let's look briefly at the evolving payment choices that consumers and businesses are making; at the impact that technological change will have; and at the difficult decisions we have to make in the aftermath of September 11.

Perhaps the most critical source of change in the payments system involves payment choices now being made by consumers and businesses. The results of the System's recent payments research studies provide a few important facts about how the nation's payments environment is changing, as well as insight into future directions. When I was here four years ago, we thought that paper check volume in the United States totaled about 65 billion payments annually and that it would continue to grow slowly to about 69 billion payments by now. That was the accepted wisdom at the time. Imagine my surprise, then, when the Federal Reserve's carefully done research found the number to be about 50 billion, with a margin of error of about 5 billion items plus or minus. Granted, this single data point does not make a trend, but it does imply a much slower compound rate of growth in annual check usage than we all had estimated since the last study of this type done more than twenty years ago.

In all, this latest research found that non-cash retail payments total in the neighborhood of 80 billion transactions annually, or a bit more than double the retail volume of twenty years ago. But now electronic payments make up almost 40% of this transaction volume as opposed to 15%, while check volume fell from 85% to 60% of the total. Clearly, consumers and businesses are choosing electronic payment vehicles more often now. Our plan is to revisit this research in some fashion fairly frequently to map the transition, but I believe I can say, with little fear of being wrong, that electronic payments are on the cusp of becoming the dominant retail payment. The question for all of us is whether we are poised to facilitate that transition and to benefit from it.

The second source of change is technology. There is no doubt that technology is playing a key role in shaping the landscape for financial services. The combination of the increased use of open standards; the broad familiarity with and use of the web by financial service users to both gain information and initiate transactions, and the declining cost of both computing and telecommunications have created new opportunities and challenges as well. One thing I have been struck by is the fact that the combination of the speed of change, and the power of technological transformation, can quickly make long-planned efforts less than optimal. For some time now, as many of you know, Reserve Banks had planned to deploy a Fedline Windows NT product to support electronic access to Reserve Bank payment and information services. Time and technological change overtook us, however, and we recently decided to drop this effort so as to commit our full energy to providing access to Reserve Bank payment and information services entirely through open systems and networks. We believe this is the right decision but it was difficult for us, and perhaps for some of you as well.

The third major source of change involves rethinking contingency arrangements in the wake of September 11. Although we should be proud of what we accomplished together to respond to the events of September 11, we need to rethink contingency arrangements to reflect an environment in which the unthinkable occurs. No longer can we focus solely on natural disasters, fires in operations centers, floods from local rivers and hackers in all of their forms. That is why, in the Federal Reserve System, we are looking at increasing the geographic diversification of "experts" who manage critical systems--by, for example, creating back-up key operations management who can take over seamlessly in problem situations. We are reviewing our underlying infrastructure to ensure adequate diversity in such areas as telecommunications, and increasing the security of both our electronic systems and our physical plants. The choices we make here clearly will take investment dollars and resources away from other important initiatives. Finding the right balance is critical to our ability to bring timely, needed improvements to the payments system. The sessions at this conference--the pre-conference workshops yesterday and the general session tomorrow--on successful strategies in business contingency planning can help all of us find this balance.

In the midst of all this change, we have to set and diligently pursue strategies that ensure achievement of our core missions. The Reserve Banks remain committed to our roles as both central bankers and competitive service providers. In our central bank role, our strategic focus is on the overall efficiency, accessibility, and integrity of the U.S. payments system. We want to work with the market forces that are moving this system from paper to electronics. We want to ensure the payments system continues to support the smooth functioning of the U.S. economy as effectively as possible.

As a service provider, we need to provide cost effective and innovative products that meet the evolving needs of financial institutions and ultimately of businesses and consumers. That means being very efficient and technologically sophisticated. The prospect of major change in the payments system provides us with a unique window of opportunity to achieve important payments systems improvements in each of our roles -- both through collaborative work with the industry and through the provision of new and more efficient Reserve Bank services. So now let's talk more specifically about four key opportunities for payments system improvements from both these perspectives.

As electronic payments continue to grow, the challenge of paper remains, with billions of checks still being written each year. All of us have invested in enormous infrastructures to process paper-based payments. We have come to rely on the revenue streams generated by that investment. But now, faced with growing consumer and business preferences for electronic payments, we need to find ways to reduce the costs of processing this paper volume to allow greater investment to meet that market demand. That challenge has got to be met by an increasing commitment to stopping the paper as early in the collection process as possible. If we make both the forward and return collection process fully electronic, the savings should be substantial--savings that can be redirected into supporting new payment types. But to achieve those savings, an infrastructure is needed that supports a fully standard electronic flow of payment data. This infrastructure should provide for electronic capture of check information in image form. A firm legal foundation is needed for the electronic item. And, at the same time, the process that supports the continuing paper flow needs to be made more efficient and cost effective.

Reserve Banks and other industry groups have been working for some time to create the needed electronic infrastructure. Over the past few years we have worked with the industry to foster the move to more electronic collection through joint efforts to promote greater use of electronic check presentment, or ECP. Fully 22 percent of the checks collected by Reserve Banks are now either deposited or presented in electronic form, though, I should note, most involve paper to follow. The banks that make up SVPCo recently reconfirmed their commitment to send 50% of their forward collection checks via ECP by the end of 2003. Currently 27% of the volume exchanged among these participating banks is ECP, again with paper to follow.

In the standards arena that is so important to electronic collection, Reserve Banks are engaging both industry participants and standards organizations in efforts to promote the broad-based use of technical standards and common business practices that will achieve greater interoperability in systems. Two years ago, the Federal Reserve hosted an ECP workshop attended by key industry players and late last month we hosted the first in a series of industry dialogue sessions on the issue of interoperability in the evolving electronic check payments systems. Collaborative sessions like these are critical to addressing the myriad of standards issues and to identifying and resolving barriers to more widespread electronic check collection.

From a cost benefit perspective, the business case for ECP has been somewhat elusive. However, work needs to continue on this front. Obviously, the business case to engage in particular operations or offer particular products is ultimately a matter for the individual institutions involved. But association of institutions of all sizes are increasingly focused on this issue. For some time now, BITS has been helping banks understand the full benefits of ECP. They have recently re-worked their business model to assist with this effort. SVPCo also is helping its members assess the business case for ECP and the ICBA has worked hard to promote ECP and educate community banks and their customers. We need to work together to foster increased understanding not only by banks, but also by businesses and consumers, of how the ECP process works and its benefits.

On the regulatory front, industry groups like BITS and ECCHO also have been active in helping to remove legal barriers to ECP. They have worked to bring about changes to laws and regulations related to ECP payments and information. With help from many of the organizations represented here today, the Board of Governors forwarded the Check Truncation Act to Congress last December. Passage of that Act would allow banks to truncate checks -- that is stop the paper and process the payments data electronically - and to use digital images to produce paper substitutes if they are needed. Paper substitutes could be presented to those institutions that have chosen not to accept electronic presentment. They could also be used as legal proof of payment by consumers or businesses, and as legally valid return items. With the faster forward collection process promised by the greater use of ECP, the ability to satisfy the legal need for paper items by using images should reduce check fraud. Moreover, if paper is created only when needed, electronic processing can be used to transform the back office. Imagine all the processes of check clearing with significantly less paper - many fewer reader-sorters and less reliance on trucks and airplanes! Ultimately, I would hope, every check that remains is collected electronically, and this new legislation could hasten the day when that is the case.

As we make the transition to full electronic collection, safe, widely accessible storage of digital images is critical. Both the Fed and the private sector are building national check image archives that will provide industry utilities for storing and accessing check images. The Reserve Banks are using this conference today to announce a new, national check image service which we hope you will take the time to investigate while you are here at the Conference. This new service will enable ever more timely cash management and other services to corporate customers and, in its ultimate form, will allow consumers access to images through home banking systems. Robust access capabilities provide for a range of image retrieval and file export capabilities. FedImage has been designed using open standards. It is our plan that our service will work together with similar private sector offerings to create a national image infrastructure. The ultimate vision is that customers will be able to access images stored at the Fed and at other service providers in a seamless manner.

In the check returns area, the Reserve Banks have been working on an initiative with the industry to apply image technology to the returns process. The collaborative Image Returns Task Force has recently provided detailed technical, operational and legal information for use by institutions interested in exchanging image returns. Although return items represent less than one percent of total check volume, we all know that, by definition, returns have a higher risk of loss than forward collection items. An image-based returns process would help reduce risk and facilitate a more complete electronic collection process for institutions participating in electronic check presentment.

The trend toward the use of more electronic payments, rather than checks, and the simultaneous evolution of the check process to become more electronic pose a huge challenge and, I would argue, a huge opportunity. Reserve Banks and depository institutions alike need to focus on what investments, if any, to make in check processing infrastructure. We have been engaged in this process for some time now. We believe our role has to be to remain in the physical check collection process as long as it is necessary to do so to support the evolving retail payments system. The question for us has been how to move from the 47 different processing systems that we now operate to a system that can handle rapidly changing volume patterns, and provide common products nationwide. This has meant significant investments in our processing infrastructure, standardization of our operations and the inevitable wrench of downsizing. But, in the end, we believe we are creating a base on which the industry can leverage its own investments to create broader payment system efficiencies.

Advances in computing and telecommunications now will allow Reserve Banks to process checks in many locations from a single automation platform. We began this process last year and expect to complete it next year. This major undertaking will completely standardize our check processing environment. We will be able to deliver uniform products and services nationwide and be more efficient by consolidating the resources to deliver those services. In the check adjustments arena, the Banks have invested in new software, and implemented standard practices that should provide the industry with the opportunity to take much of the headache and cost out of the error-correction process. By moving to a standard enterprise-wide platform we can eliminate redundant processes, improve the timeliness of error resolution, and provide financial institutions with consistent handling and presentment of check adjustment entries across Reserve Banks. Web-based technology will allow financial institutions to access the information they need to research and resolve many of their own check adjustments much faster than today.

ECP, image capture and archive, the Check Truncation Act, and all our efforts to become more efficient should eventually reduce the cost of processing the paper flow. But what about the increasing number of payments that are fully electronic from initiation through collection? What steps are being taken to make the infrastructure for those payments more robust? The Fed's payment research has shown that increasingly the ACH is serving as the backbone for the electronic retail payments system. It is both a primary payment conduit, and a settlement mechanism. I have been intrigued by the fact that often consumers and businesses are unaware they may be using this network as their checks are returned at the point of sale, when they use a debit card or when they pay bills on line. According to information provided by NACHA, the ACH network is used by over 115 million consumers, four million businesses, and more than 20,000 financial institutions. ACH volume last year grew at an annual rate of over 16%. And, our market research studies confirm what many of us already believe; there is enormous opportunity to grow the ACH even more. Almost 40% of the 50 billion checks written annually are payments made by consumers to businesses. Another 15% are business to business payments. Both these payment types can and should be converted to electronic payments, and the ACH is positioned to support this conversion.

We continue to look for ways to enhance FedACH to accommodate new and emerging payments needs and to support the development of new products that meet the needs of the market. Already we have consolidated our operations and customer support to significantly reduce FedACH prices--in fact, those prices have dropped more than 60 percent in the last 5 years. We will continue, as will all ACH operators, to focus on making the ACH payments system ever more efficient and cost-effective. We want to create a same-day product; we want to make the ACH reach more international locations, and we want to support the critical Point of Sale transformation of checks into ACH payments. Standards are critical here as well, and we support NACHA's efforts to move to more open standards.

Finally, the application of web-based technology and internet protocols in the payments arena offer enormous opportunities for new services and significant efficiency gains. Let me share a few examples of Reserve Bank initiatives in this area to illustrate this point.

As some of you know, Reserve Banks already provide access to information services and low-risk transactions via the web. Today, we have over 1,000 institutions that access a limited set of low-risk services over the web. These include cash and savings bonds ordering and access to some check services. Beginning last month, additional information services were offered that eventually will provide all 9,000 of our account holders nationwide with access to a broad range of accounting and billing information. As the year progresses, more robust ACH and funds transfer information services will be provided as well.

Clearly, information services are one important step, but value transfers using open systems are yet another issue. We are pushing hard to find ways to make secure ACH and funds transfers over the internet, or more likely an extranet, using web technology and open protocols. Since we transfer on average about $2.5 trillion daily, you can be assured that we worry a lot about security in an "open environment".

So far, we have completed several pilots in which we have successfully exchanged ACH files and completed basic funds transfer transactions using internet protocols, but much more needs to be done to satisfy our concerns about the security of value traffic. In this environment it is also essential that we work with each other to experiment with new ideas. For example, the New York Clearing House has developed a system that uses a Universal Payment Identification Code, or a "UPIC", to identify individual business entities, and ultimately individual consumers, in this more open environment. We are supporting the Clearing House effort so that together we can determine whether this system helps facilitate end-to-end electronic payments while protecting confidential bank account and bank routing information.

In sum, the U.S. payments system is in a process of enormous change. We all face a host of challenges as we look for ways to apply technology and create the business cases that will enable us to move from paper to more electronic payment processes. To be successful, we need to work closely together to understand clearly the needs of both businesses and consumers--the end users of the payments system.

As an industry we need to seize the opportunities to meet these needs by reducing the cost of the paper payments system and by investing in the growing electronic payment systems. This requires broader use of ECP and image technology, resizing of the underlying check processing infrastructure, and aggressive investments in the electronic payment and information systems that consumers and corporations increasingly prefer. Together we can guide the critically important U.S. payments system through a transition to the ever more efficient, accessible and resilient electronic payments system of the future.

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