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SPEECH

Patrikis: Perspectives on Future Improvements to the Payments System

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Remarks by First Vice President Ernest T. Patrikis before the Payments 97 Conference With my distinguished colleague from Boston, Paul Connolly, also on the panel today, I intend to make only some general comments on retail payments before turning to: (1) international efforts to mitigate payment system risk, and (2) new wholesale products and enhancements planned by the Federal Reserve.

1. Retail Payments

We have been predicting substantial change in retail payments for quite some time, and for the most part we have been proven wrong. Now, however, several developments seem to be coming together that suggest we could see some significant changes in the relatively near future. These changes will offer consumers and merchants more options and greater convenience in making and receiving payments as well as potentially enhancing the efficiency of the payment system in the longer run.

One potentially important example is the development of home banking. As home banking with personal computers becomes more popular, some firms are developing front-end applications for ACH that are very user-friendly. These front-end applications will give the consumer the ability to: (1) review an electronically presented bill before paying, (2) pay by simply pointing and clicking on an icon (or choose an automatic pay option without prior review for certain bills), (3) control the timing and amount of the payment, and (4) select which bills they would like to pay electronically each month. Indeed, I understand that in some cases consumers will even be able to arrange for an automated E-mail message reminding them that the deadline for paying a bill without penalty is approaching. That is a feature paper-based systems will be hard pressed to duplicate. Hence, it appears that banking from home with personal computers may prove to be the catalyst that helps us overcome some of the problems with ACH that we have been attempting to address for a long time. Indeed, I do not see how you can make ACH any easier than "point-and-click" after receiving a gentle reminder that payment is due.

Electronic money, both card based and Internet based, also appears to be moving ahead, and you can be sure that I will personally try out the Visa-/MasterCard-/Mondex, smart card pilot in Manhattan later this year. This pilot is very important because it will test the interoperability of VisaCash and Mondex at the point of sale. It will also provide some insights into how electronic money will affect the use of other payment instruments such as debit cards and credit cards.

Turning to E-money on the Internet, some of the developers of E-money for use over open computer networks are broadening the range of risks they attempt to control in their systems, such as (1) managing the potential liabilities that could be incurred by a certifying authority, and (2) insuring that products are delivered for payments received. In other words, they are beginning to take more of a payment-system-risk perspective, and I find this very encouraging.

The G-10 central banks, for some time, have been concerned about the risks associated with electronic money and recently released a report on the security of electronic money. I would like to encourage those of you who are interested in this topic to obtain a copy through the Federal Reserve Bank of New York's public information department. At the same time, the Banking Law Committee of the American Bar Association has undertaken an analysis of the commercial law issues associated with electronic money. So you can see that, piece by piece, the necessary elements for the successful development of electronic money are falling in place.

Electronic commerce on the Internet seems ready to mushroom, with some firms already specializing in the business of helping other firms set up electronic commerce sites on the Internet. In visiting the Web sites of banks around the country, I was interested to see that some bankers are also getting into this consulting business, no doubt with an eye toward eventually processing payments or extending small business credit to this emerging market. Whatever the exact motivation, it is clear that some banks are making sure they get in on the ground floor of this new medium for commerce. As a matter of fact, when I visited one banker's Web site, I could not help but be amused when I saw his warning to his fellow bankers (and everyone else for that matter) not to become "Luddites." By the term "Luddites," I take it he means slow or late users of Internet technology simply because they fail to see the huge, potential benefits to society and can only focus on the some of the problems such as security. I, for one, surely do not intend to be a "Luddite," but I also have too much payment system experience not to be concerned about the potential risks in any emerging payments technology.

In any case, this expansion in electronic commerce will eventually create a demand for the capability to make secure, electronic, retail payments in large and small amounts, not only with electronic money, but also with credit cards and perhaps even electronic checks. It remains to be seen where all this will ultimately end up. In the meanwhile, it will be important for central banks to monitor this emerging, electronic marketplace, especially if some of the more optimistic predictions for the scale of electronic commerce on the Internet prove to be correct.

And such predictions can no longer be taken lightly. Once Internet access becomes possible through TV sets, even "couch potatoes," who may not be "computer literate," can point-and-click or use a remote control to surf the Internet and engage in electronic commerce. Hence, *access and computer literacy* could well diminish as major obstacles to electronic commerce, and the primary hurdle could turn out to be more one of convincing consumers that *security and privacy* will be provided at adequate levels. However, convincing consumers may not be all that easy because the technology will appear to most people largely as a "black box," suggesting the problem will boil down to one of "basic trust" in the institutions providing the payment services.

At the same time retail payments are starting to move towards electronics, we also have fundamental appraisals by the Federal Reserve and the Bankers Roundtable concerning the future roles, respectively, of the central bank and commercial banks in the retail payment system. The initiative by the Bankers Roundtable seems more oriented toward promoting and solidifying the role of banks in the retail payments system as we move to a more electronic environment as well as maintaining the special status of banks as the institutions that have the "basic trust" of consumers that I just mentioned.

The Federal Reserve's appraisal, chaired by Board of Governors Vice Chair Alice Rivilin, involves reviewing the full range of options for its future involvement in the

payment system. The Federal Reserve, of course, is not undertaking this review in a vacuum at high levels in Washington, but is including operations and research people from through out the entire System, many of whom have extensive hands-on experience in the payment system. In addition, we expect to be talking to customers, competitors, and others over time to make absolutely sure that we fully understand the implications of any steps we might take in redefining the role of the Federal Reserve in the payments system. We will try to keep you updated as all this unfolds.

In general, several important crosscurrents are developing in the retail payments business, and the next few years could turn out to be ones of important change. But retail payments are not the only part of the payment system where change is occurring, and next I would like to turn our attention to international payment-system risk-reduction efforts.

2. International Efforts on Risk Reduction.

A large amount of the work in the international arena has been conducted through a BIS committee on payments issues, the CPSS. The Committee on Payment and Settlement Systems has been chaired in recent years by Bill McDonough, President of the New York Federal Reserve Bank, and several members of the New York Fed's staff have been actively involved.

A major focus of the Committee's efforts over the past several years has been foreign- exchange settlement risk. In March of last year, the CPSS published a document, referred to as the Allsopp Report or Orange Book, which contains a three-pronged strategy for reducing foreign exchange settlement risk, outlining actions to be taken: (1) by individual banks (to control their settlement exposures), (2) by industry groups (to provide risk reducing multi-currency services) and, (3) by central banks (to encourage rapid private sector progress). As you can see, the strategy specifically calls upon the private sector to make progress towards reducing risks. The role of the central banks is to encourage satisfactory private sector action and monitor progress.

It appears that many banks and the industry as a whole have made a satisfactory start to dealing with settlement risk since the report was issued. For example, the Allsopp report recommended the use of legally binding netting to reduce settlement exposures. A recent survey, conducted by the CPSS, reported that more banks are beginning to employ bi-lateral netting arrangements. The efforts by industry groups to establish a multi-lateral solution (ECHO and MULTINET) are also encouraging. In addition, the G20, a group of twenty commercial banks from eight countries, is working to develop and implement a private sector, payment-versus-payment multi-currency settlement system, often referred to as CLS bank, (continuous linked settlement bank). The CPSS has also maintained an active agenda with respect to securities settlement. Last year, the CPSS, working with IOSCO, developed a disclosure framework for securities settlement systems, incorporating significant input from private sector participants and emerging market representatives. The disclosure framework is essentially an annotated questionnaire intended as a tool that securities settlement systems can use to make sure their members understand the potential risks they face through their participation. For those of you interested in more detailed information on this effort, you can see the disclosure framework as well as some completed examples on the BIS web site (www.bis.org).

The Barings failure prompted yet another initiative by the CPSS because it alerted us to the need for taking a fresh look at the clearing arrangements for exchange traded derivatives. The CPSS will be releasing a report within the next few weeks that highlights potential weaknesses in such arrangements as well as steps to reduce risks. Again, I believe this work has important insights that could be helpful to many of you in attendance today.

Finally, if I have not already added too many items to your reading list today, let me also plug yet another report the CPSS will soon be releasing, a report that contains an in-depth discussion of real-time-gross-settlement systems in several major countries. The discussion covers the variety of options that are available in designing such systems, such as liquidity and queuing arrangements as well as payment message structure. Hence, the report should be helpful to emerging-market countries that may be considering building their own RTGS systems.

RTGS, I would like to emphasize, is not the only way to manage risk in large-dollar payment systems. Here in the United States, as most of you already know, the Federal Reserve operates Fedwire, an RTGS system, while CHIPS operates a netting system that manages risk through the use of system net debit caps and credit caps. Simulations undertaken by CHIPS indicate that, with the improvements put in place earlier this year, settlement should be ensured even if the simultaneous failure of the two largest participants occurred. Therefore, let me emphasize once more that there is usually more than one way to manage risks. As a result, central banks are reluctant to impose solutions on the private sector, believing that the highly innovative private sector is best qualified to find its own solutions. Nonetheless, the responsibility of central banks to maintain the overall integrity of the payment system also means that we will be carefully monitoring and encouraging private sector efforts.

Looking ahead, I believe you will be seeing more discussion of two important issues: (1) linkages between payment and settlement systems and, (2) who has access to these systems and on what terms. Access, of course, has become a hot topic here in the United States as we consider legislation to reform the nation's financial-services structure. Access is also a very important issue for private-sector systems with international participation, such as those being developed in the European Union.

The other challenge for the EU will be linkages. A system called TARGET is being developed that will link RTGS systems across the EU. And you can imagine what a challenge this effort must be. A recent report issued by the EMI suggested that the central banks involved in a common monetary policy should be able to accept securities under repurchase agreement from one another on a delivery-versus-payment basis. Hence, not only would the RTGS systems need to be linked across countries, but so would the securities settlement systems.

When we speak of linkages, of course, we really mean linking computers in bigger and better networks and then storing and transmitting electronic information securely among these computers. At the Federal Reserve Bank of New York, we recently hosted a conference, sponsored by the Payments Risk Committee, on *electronic security,* and one lesson that came across quite clearly is that "the chain may only be as strong as its weakest link." If a hacker breaks into one system on a computer linked in a network, the hacker may also be able to get into the other computers that are part of the network. And the hacker, if sponsored by a hostile foreign government or by organized crime, may have the computer resources to implement the attack. In any case, as these computer systems become increasingly linked and more information is processed on a "straight through basis," I believe you will see electronic security becoming a greater concern. Increased linkages mean that it will be necessary to have greater co-ordination of the three essential security components: (1) prevention, (2) detection, and (3) containment. The proceedings of the conference will be available in a few weeks; and I believe that you will be able to view the proceedings on video tape (for those of you exhausted by the long reading list of CPSS reports I have already given you today).

I would like to use the remaining time I have to tell you about some new wholesale products and enhancements that the Federal Reserve is developing.

3. New Wholesale Products and Enhancements.

The Wholesale Payments Product Office that I direct and Dara Hunt manages has several important initiatives underway. Our Office is responsible for Fedwire and net settlement services provided by the Reserve Banks.

I am sure you are aware of a cluster of Fedwire projects that affect our customers directly. These include: implementation of new funds transfer and book-entry securities software applications, consolidation of Fedwire automated processing, implementation of an expanded funds transfer message format, and preparation for implementation of expanded Fedwire operating hours.

We expect our new Fedwire software applications to help us roll out beneficial service enhancements more quickly than in the past. The new applications are just one of a cluster of initiatives we are working on to allow us to listen and respond to marketplace needs more rapidly.

We completed the consolidation of funds processing in March of this year. The savings associated with this streamlined processing has already allowed us to reduce the funds transfer fee 10 percent, from $0.50 to $0.45. We expect additional savings in funds and look forward to similar benefits once we complete book-entry securities consolidation.

The expanded funds format and the 18-hour funds day are two projects that have international as well as domestic importance. Many of you are working with us to test and implement a new Fedwire funds-transfer message format. We are almost half way through this massive project, and we consider it a "good news" story on all fronts. This change was requested by the American Bankers Association and other industry groups. The industry wanted the change and helped us develop specifications for the new format and an implementation strategy. The new format is as similar to those used by CHIPS and S.W.I.F.T. as is technically possible. Once implemented, the format will support straight-through processing, and increased automation, as well as Treasury anti-money laundering regulations. We are especially pleased about the tremendous cooperation we've received from the industry on this effort.

On December 8th of this year, the Fedwire funds service will be open from 12:30 AM Eastern Time to the current close time of 6:30 PM ET. Participation in the expanded hours is entirely optional for banks. We believe expanded Fedwire hours will support efforts to reduce or eliminate foreign exchange transaction risk and domestic payment risk, particularly in times of stress. We are pleased that, since our announcement of plans to expand funds hours, market participants here and abroad have acknowledged the importance of this change. We are still talking with industry participants about the benefits and costs of expanded book-entry hours. On one level, Fedwire is a critical element in the **infrastructure** of the payments mechanism. Expanding its hours is one way to remove barriers to vital private sector innovation.

I want to talk briefly about a project that I know will be of great interest to this group. We are currently developing a policy statement on risk management for relatively small- dollar net settlement arrangements. In concert with this effort, the Wholesale Payments Product Office has developed requirements for an enhanced net-settlement service. In crafting these requirements, we paid close attention to private sector requests for improved service, along with our needs to manage the risks Reserve Banks assume in providing payment services.

We believe you will find the high-level requirements for the enhanced service responsive to your needs. We plan to offer a net-settlement service that is uniform across all Reserve Banks. We know that, as banking boundaries blur, we need to provide a service that supports clearinghouses and other arrangements with widespread, even nationwide, participation. Finally, we recognize the benefits of providing improved and certain settlement finality.

We also hope to provide a service that is operationally efficient for our customers and for us as service managers. We hope to begin implementing this enhanced service during fourth quarter 1998. To do so will require that we adopt new requirements-review and systems-development strategies. We will keep you posted on our progress. We are also planning to seek feedback from industry participants, informally and through the use of private-sector advisory groups, as we complete the detailed service design. Please stay tuned!

4. Conclusions.

No matter how you look at the payments business: (1) from the retail side, (2) from the wholesale side, or (3) from the perspective of central banks concerned about important risk issues, the payments business continues to be one of constant change. And I am pleased to say that for the most part the change, resulting from the efforts of both the private sector and central banks, appears to be for the better. That is, the change is resulting in greater efficiency and convenience as well as safety and soundness. Nonetheless, certain challenges remain; and I believe that the private sector as well as central bankers must continue working hard to improve the sophisticated payment systems we all benefit from.