Remarks by

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Before The
Women in Housing and Finance
Technology Symposium
Washington, D.C.

December 4, 1996

Good afternoon, and thank you for asking me to participate in this technology symposium. I applaud Women in Housing and Finance for putting together today's excellent program on this important topic.

We are living through a period involving the most profound changes in the financial services sector of the economy in over half a century, and these changes are inextricably linked with with changes in technology.

The financial services business is, after all, an information intensive business. And the technological revolution that has been taking place over the last 30 years and is continuing today is a revolution in information technology.

In keeping with the title of your previous panel, the "Changing Role of Government," I would like to address some of the supervisory issues -- safety and soundness, consumer protection and access to financial services -- that this technological revolution raises and share with you what some of our responses have been and should be. Because the technological revolution presents both challenges and opportunities for regulators and consumers.

I would like to speak about both today. Let's begin by talking about a few of the challenges and how the OCC is meeting them.

First, technology has increased the speed with which transactions take place and the global nature of many of those transactions. Moreover, this continues to be a moving target as both speed and globalization are increasing in many transaction categories. For example, today we have automated trading of many financial instruments that goes on round the clock in major markets in different time zones -- New York, London, Singapore, Tokyo, Chicago.

In response to these changes we now monitor both markets and certain activities of our largest institutions on essentially a full-time basis. Our examiners have increased their supervision of bank activities outside the United States. And, I expect that the sophistication of our monitoring -- as well as foreign onsite supervisory activities -- will continue to expand in the months and years to come.

Second, technological change has paved the way for new products and services with somewhat different risk profiles than traditional products and services. For example, derivatives didn't exist to any significant degree 15 years ago and today the notional value of derivatives is more than \$19 million. Expanding activity in this area led the OCC to create a new capital markets unit made up of supervisors and economists, publish detailed guidance and refinements to that guidance, and create new examination modules in this area -- all since 1993.

On a bit more topical note, this past Monday, we approved national bank participation in an electronic money venture -- the Mondex stored value card system. Mondex was developed in Great Britain by National Westminister Bank. In its action on Monday, the OCC approved an application from several national banks to establish U.S. operating subsidiaries that will make investments in two limited liability companies. These companies will operate the Mondex stored value system in the United States. One company will create, sell and redeem Mondex stored value cards in exchange for dollars. The other limited liability company will act as a licensing and servicing entity.

The advent of the electronic money/stored value card in the U.S. is a development that promises increased convenience for consumers and a somewhat new role for banking organizations. But, of course, we recognize that, as with any financial product, stored value card/electronic money networks present the institutions involved with some risks -- risks that are somewhat unique to the new product. Accordingly, under terms of the OCC's approval for banks to invest in these companies, the limited liability companies are subject to examination, supervision and regulation by the OCC.

Third, technology does not just create new products and services — it can change the way traditional products and services are offered. We are just now seeing the burgeoning of home banking and the use of credit scoring models. These changes potentially offer bank customers greater convenience and lower costs, but here again, they give rise to new types and combinations of risks. And, as a responsible supervisor we have had to become

conversant with new areas, such as encryption technologies and modeling techniques.

To keep up with these and other changes we have formed a Bank Technology Committee to help us both respond to and anticipate change. Just recently the OCC's Bank Technology Committee assessed how banks in our northeastern district are employing various technologies today and how they plan to use them in the future.

We looked at all banks in this region -- over 250 community banks, nearly 50 federal branches and over 25 regional banks -- and gauged their level of involvement in a variety of technologies -- from the most basic, such as call centers offering 24-hour telephone access to bank services and information, to the more advanced technological efforts such as PC banking, imaging and profitability systems.

We found that these banks are actively exploring new opportunities and many are developing roll-out timelines in all technology areas. For the most part, these banks seem to recognize not only the importance of pursuing technological possibilities, but the need to be prudent in determining what makes best sense for their individual markets, customer needs and business strategies. Institutions taking this tack understand that it makes far more sense to research and understand technology and its evolution before rushing head-long to implement it or locking into a system that may not offer long-term advantages.

A fourth area where technological change presents the supervisor with very serious challenges is in the consumer fraud, disclosure and liability areas. While such innovations as banking on the Internet offer consumers potentially greater convenience and cost savings, they also raise new concerns.

Consider this hypothetical scenario. A consumer logs on to the Internet, surfs to a web site of something called the Oxford Internet Bank, and get interested in one of its products or services. In fact, the consumer does not know whether there even is an Oxford Internet Bank, nor where the bank is actually located. Moreover, in transferring credit card information to Oxford Internet Bank, there are issues of data security and personnel privacy.

These issues are by no means easy ones, because technological advances create a moving target, activity to date is limited, and fashioning a remedy for a potential problem that does not yet exist can chill development of products and services that may ultimately benefit the consumer. That is why we formed the Electronic Money Consumer Task force made up of several relevant governmental departments and agencies that will be addressing these issues in detail over the next 18 months.

Fifth, it is incumbent upon both supervisors and the industry to recognize that the new technologies give rise to potential access challenges for low and moderate income Americans. These challenges arise because of the potential cost to consumers to participate, at least initially, in using new technology. These issues will be considered in earnest by the Consumer Task Force, the Treasury and other parts of the Government as these new technologies mature further.

At the same time, I also anticipate that these technologies will resolve a number of access-to-financial services problems that have bedeviled policy makers for the last several decades.

Because rapid changes in information technology reduce dramatically the per unit cost of the application of that technology, lower value, higher volume transactions can be conducted in a more cost effective fashion. And it is these lower value and higher volume transactions that are often most at issue when access for low and moderate income individuals are discussed.

For example, the unit costs of teller and telephone transactions are considerably greater than ATM and computer driven banking transactions. A recent study showed that the cost per transaction is \$1.07 for a full service bank, 54 cents for a telephone, 27 cents for an ATM -- but just a penny and a half for PC banking.

Similarly, technology may make it less expensive to make certain loans and provide other services through the use of these alternative delivery channels. As a result, we are already seeing banks partner with community-based organizations for the local delivery of products and services with the use of these new delivery channels.

Perhaps of greatest significance, the Federal Financial Management Act of 1994 requires that all federal payments, other than tax refunds, be made by electronic funds transfer by January 1, 1999. This requirement, coupled with the technological changes that make it possible, offer the possibility for the first time that a high percentage of low and moderate income Americans may actually have accounts with financial institutions. As you are aware, Under Secretary of the Treasury Jerry Hawke is in charge of this important project.

This project is illustrative of the importance of government and the private sector not merely staying on top of the new technology, but also using its power as an opportunity to achieve objectives that the public wants.

In the consumer area generally, it is not enough to make sure that the new technologies be used so that consumer well being is not adversely affected. Rather, the technologies offer the possibility of better quality disclosures, a decline in fraud and other crimes in addition to new products, greater convenience and lower cost.

Finally, technology offers government the opportunity to do a better job in safety and soundness supervision. In this regard, I want to say a few words about what we have been doing at the OCC.

Just, this week, the OCC began conducting its first pilot bank examination with a new computer system and software program in a community bank in the northeast. We have developed this software program -- which we call Examiner View -- to help our bank examiners plan supervisory strategies for individual banks and to conduct exams more efficiently and with less burden to the bank.

This program will, we hope, provide us the ability to significantly simplify and speed the examination process, while at the same time providing much more comprehensive aggregate data from our supervision activities. With this program, an examiner will be able to use his or her laptop to maintain and track institution information and conduct an exam from A to Z. The ongoing supervision record will allow examiners to access core data such as indicators of bank structure and performance, track matters requiring board attention and recommendations, and monitor enforcement actions.

Further, examiners will use the system to plan an examination strategy and assign personnel who will perform the specific tasks of the examination. And by automating the reporting and documentation of exam activities, we will be able to cut the time our examiners spend performing duplicative paperwork functions. We intend to refine the program based on what we learn from this current pilot and expand its use in the coming year.

With more extensive computer access to OCC systems, our bank examiners will also have access to an array of tools that can further increase the value and efficiency of our supervision -- tools that are also available to our OCC analysts and managers as they conduct financial research and analyze emerging trends in the financial services industry.

In September, we launched our Industry Sector Information Service, or, ISIS, for short. ISIS is designed to improve our credit examination capabilities by providing timely and convenient business information to bank examiners on an industry-by-industry basis as well as on a company-by-company basis.

Another system, our Integrated Banking Information System-- or IBIS -- gives our staff instant access to information such as call report data, CAMEL and CRA ratings, and pending mergers or acquisitions.

Beginning next year, this data will be available to all employees in a form that allows modeling, economic analysis and rapid retrieval. Also in 1997, a new database will allow examiners and analysts to review individual bank performance under alternative economic conditions. For example, this will offer us greater ability to look at how a bank that is heavily reliant on consumer credit loans has performed -- and is likely to perform -- in an economic downturn and enable our staff to better anticipate when and how a bank might see problems in the future.

Now, of course, these systems hold a great deal of potential — in theory. But information — no matter how readily available or easy to manipulate — only has real value when it is used effectively. That is why a team of our examiners and economists is developing a set of resources — models for bank risk, filters for credit concerns — that will be used in concert with these data systems to provide us a more complete picture of bank performance. This is an area of constant growth as we refine our knowledge and improve our analytical techniques.

Technology holds great opportunities -- for financial services providers and for the American public. The country's regulators will play a leading role in realizing the potential technology affords, by working with the financial industry and our international peers to address both safety and soundness issues and consumer concerns about privacy, accessibility and reliability. And I'm confident that technology will, itself, become an even more valuable tool in the regulators' arsenal in the years to come as we carry out our traditional role of ensuring safety and soundness and safeguarding the public interest.

The OCC charters, regulates and supervises approximately 2,800 national banks

and 66 federal branches and agencies of foreign banks in the ${\tt U.S.}$, accounting

for more than half the nation's banking assets. Its mission is to ensure a $\ensuremath{\,^{\circ}}$

safe, sound and competitive national banking system that supports the citizens, communities and economy of the United States.