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The title of this morning's panel -- "Making Money -- Literally" -- reminded me of a period in American history when banks did exactly that. Back in the middle of the 19th century, state-chartered banks printed bank notes that were backed by the deposits in those banks. This paper money was only as good as the bank that issued it, and, as you might imagine, caused significant economic problems. It wasn't until 1863, when Abraham Lincoln created the Office of the Comptroller of the Currency to charter and supervise national banks, that the federal government began exercising some degree of control over the national currency.

Today, technology has made it possible, once again, for banks and other organizations to literally create their own money in the form of stored value cards. This and other technological innovations are posing significant policy challenges that go well beyond what we have grown accustomed to labeling "financial modernization." While Congress continues to debate the extent to which state laws apply to national bank activities, technology is rapidly rendering geography irrelevant. You hear that so much you might not have stopped to think what it means, so let me repeat it. Geography is becoming irrelevant.

Unfortunately, the hard reality is that while geography may be becoming irrelevant from the standpoint of business operations and communications, it's still very much a part of the laws and regulations that govern the provision of financial products and services in this country.

Indeed, the laws and regulations governing our banking system -- and much of the rest of our financial services system -- are integrally tied to geography. Geography determines much of what both national and state banks can and cannot do. Geography drives much of the allocation of responsibilities between different regulatory bodies -- not only in banking, but also in insurance, securities, and other financial services areas. Geography has a lot to do with the protections consumers of financial services enjoy. Geography has a lot to say even about the very enforceability of the commercial
transactions that constitute the business of financial services.

So on the one hand, we have the commonplace observation that new technologies are making geography irrelevant. But on the other hand, the legal structure that governs our activities as regulators and the activities of the institutions we regulate still has geography at its core.

What conclusions should we draw from this juxtaposition? Let me suggest two. First, we as regulators and policy makers have a lot of work ahead of us if we are serious about bringing our financial system into step with these emerging realities of the marketplace. And, second, that task -- far more than any of the proposals that are now or have recently been debated in Congress -- constitutes the real work of modernizing our financial system.

With those preliminary observations in mind, let me turn to the subject of electronic money. The term electronic money is frequently used, and used to mean many different things. It covers some activities that have been with us for some time now -- such as the use of personal computers or telephones to pay bills, transfer funds and obtain account information -- and others that we're just beginning to consider -- such as electronic commerce on the Internet, stored value cards in lieu of cash, and using technology to dispense federal and state benefits. But within the scope of these many meanings are a number of issues that force all of us to advance and refine our thinking about commerce and banking -- and about government regulation of banking.

Like all financial services institutions today, banks are keenly interested and deeply involved in the development of these new payment technologies. And, as a bank supervisor, I am concerned that banks remain competitive in meeting their customers' needs by taking advantage of these technological advances. But at the same time, we must recognize that some of these new technologies present issues and risks that are not yet fully understood -- either by the financial services industry or the regulatory community.

The need to assess technology's impact and share information and perspectives lies at the heart of the Treasury Department's activities on electronic money issues, which Secretary Rubin asked me to coordinate last August. The primary purpose of this effort is to serve as a clearinghouse for information, analysis and shared concerns. Because Treasury is a large, diverse organization -- with a lot of connections to and interests in the electronic money arena -- we are currently focusing on three broad areas: law enforcement; government operations; and financial stability.

First, as you know, Treasury plays a major role in law enforcement, with a special focus on counterfeiting, money laundering and tax evasion. As a result, we are naturally concerned about the possibility that certain electronic money
technologies could be used to facilitate such crimes or perhaps to invent new types of financial crimes.

Second, Treasury has several operational interests in this area. For example, Treasury processes huge volumes of government payments annually. Any technology that can provide a more efficient payment process is, therefore, of interest. Also, Treasury currently manufactures both bills and notes, and must consider, at least as an administrative matter, how to plan for any reductions in demand for those products that might flow from the introduction of electronic money products and systems.

Treasury's third area of focus is, of course, in the area of financial stability -- more specifically, the stability of financial institutions such as banks and savings and loans.

Technology's foes have expressed a great deal of anxiety about the dangers it presents -- and the possibility of what one commentator has called an "economic Chernobyl." While some concern is understandable, those of us who have delved into this area fairly aggressively over the past couple of years have concluded that we are not likely to see an electronic money meltdown any time in the foreseeable future.

Let me suggest two reasons for this view. First, even at very extraordinary growth rates, the use of electronic money seems unlikely to achieve the sort of volume within the next several years that would be required for catastrophic events to occur. I think that's true even if you include in your calculations not only electronic cash but also various retail-level electronic credit applications that are currently in development.

With all due respect to those who think everybody in the world will be on the Internet by the year 2004, I think we need to take projections like these with a large grain of salt. For example, one major consulting firm recently project that 20 percent of U.S. household spending would take place on the Internet by the year 2005. Just to put things in their proper perspective, to achieve that level of spending, Internet commerce would need to grow more than 130 percent each year for the next ten years.

Maybe that's not inconceivable, but I think it's unlikely. Consider the growth of some other recent technologies. Between 1986 and 1995, the sales of compact discs achieved a compound annual growth rate of just 30 percent. Sales of color televisions increased at an annual compound growth rate of 10 percent from 1970 to 1985.
Second, even if tsunami-like growth projections enable the entire population to surf the Net in the next century, the likelihood of catastrophic failure would remain small so long as consumers can turn to alternative remote payment mechanisms -- like the combination of credit cards and toll-free telephone numbers -- if there's a systemic shock in the electronic commerce environment. The costs of systemic failure in the world of electronic commerce will be borne largely by those whose businesses depend completely on the existence of electronic payment technologies. That's an interesting, cutting-edge class of businesses, to be sure, but an extremely small class today. Even assuming completely implausible rates of growth, it seems at best unclear whether this class of businesses will ever achieve macroeconomic significance.

But while an economic Chernobyl does not appear to be imminent, emerging electronic money technologies do raise a number of important public policy questions that must be answered sooner rather than later.

For example:

- Should government take a laissez faire attitude and get involved only when and if a sufficiently large problem demands attention? Or should it put in place a legal and regulatory framework to guide the development of the private market for electronic money products?

- Who should be permitted to issue E-cash? If nonbanks issue E-cash, what form of regulation and supervision is appropriate?

- Should government get involved in issuing its own form of electronic cash?

- Should government require E-cash transactions to be auditable for law enforcement purposes?

- What about consumer privacy and protections? Should the emphasis be on disclosures? Should the government limit how issuers and accepters of E-cash can use information about a customer's spending habits?

- How will Internet banking and commerce affect questions of local and national sovereignty?

- How should the world's financial regulators and law enforcement agencies allocate responsibilities for monitoring and acting to prevent the commission of financial frauds on the Internet?

- How can consumers be sure, in the Internet environment, that the financial institution they believe they are dealing with is legitimate, or that the transaction in which they are engaged is enforceable?

Conclusion
At this point, it is clear that the questions technology raises outnumber definitive answers, and the panel that follows will also -- I'm sure -- raise many interesting issues for us to think about. Let me assure you, however, that all of us in the Treasury Department and the bank regulatory community have a sense of urgency as we work to resolve the public policy issues raised by technology.

I certainly do not believe that government should focus on these new technologies with some Luddite-like desire to stop progress -- quite the contrary. At the same time, these new technological products and services are not pure speculation -- they are becoming more real every day, although not with quite the speed some in technology would like to believe.

Technology and the products and services made possible by technology will have significant implications for virtually every aspect of the operations of our financial markets. Like any financial innovation, they will present risks -- risks for the financial institutions and markets who use them, for those that do not, and risks for the customers of these institutions and participants in these markets. It is incumbent upon those of us in government to take the appropriate action to minimize these risks, while permitting the public and business to reap the maximum benefit of the new era of digital commerce.

Thank you.

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