

**THE FEDERAL RESERVE:
PLUMBER AND POLICYMAKER
Remarks by Cathy E. Minehan
to the Boston Security Analysts Society
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Good afternoon. Its a pleasure to be with you today to talk about two keen interests of mine--the state of the economy and the U. S. payments system. Some might say this is an odd combination, but my own sense is that the past 10-15 years of economic history in this country have proven the wisdom of the minds that imposed the job of ensuring the efficiency and effectiveness of the nations payments system on the Federal Reserve System at its inception in the early years of this century. It is not enough in our modern economy for a central bank to guard the value of a nation's currency, it also must be sure that payments in that currency can be made with speed, accuracy, and with little risk in order to ensure the development of effective and efficient money and capital markets. During the eighties, there was a

veritable explosion of financial activity in this country, prompted by high real interest rates and supported by wave after wave of technological change. All of this was reflected in our nation's payments system--as an example, by the end of the decade of the eighties the Federal Reserve System was routinely processing or settling for \$2 trillion a day in payments and transfers of securities. That translates into the value of the GDP of the entire United States turning over in the payments system an average about once every 3 days. Imagine the problem if those payments stopped--or even slowed--well, just the thought of that has given me more than few sleepless nights.

So let me turn very briefly to the state of the economy--and then to payment system issues. We are about four years into an economic recovery that after a slow start seems quite robust both nationally and locally. On the national scene, the jobs lost in the recession have been more than recouped;

employment has grown at a 2.5 to 3 percent annual pace and the unemployment rate is well within most educated estimates of full capacity. The nation's industries are humming along also at or near capacity, business profits and investment are strong, and the consumer is spending on durable goods, on housing, and on autos. Federal Reserve policy has moved from an accommodative position to more neutral this year with an eye to reining in inflation before it becomes a problem--and while I know there are lots of views on this subject on either side of the question--I think the evidence so far suggests that while the job may not be over we've had some success. However, this is a difficult matter to gauge with any precision and I'll bet that any one of you could quote statistics proving inflation is a problem, and be debated by someone else here in the audience with equally valid data suggesting it isn't. As one of the economists who works with me over at the Bank has been fond of saying,

"we're on the horns of a dilemma and that's just where we want to be." The dilemma of course is how to engineer that definition of economic perfection--a "soft landing" characterized by sustainably high rates of economic growth and low inflation.

Locally, we have been participating in the recovery, albeit at a somewhat slower pace and over a shorter period of time. About 155,000 net new jobs have been created since the recession bottomed out in early 1992--unlike the nation as a whole, however, that only brings us 1/3 or so of the way back to our pre-recession employment peak. Economic projections done by the New England Economic Project suggest that Massachusetts won't return to that peak until late in this decade. Other measures of economic activity are favorable as well--our local unemployment rate is lower than that for the nation as a whole, consumer spending and incomes are up, housing activity while slowing remains

respectable, and local inflation rates are fairly low. Focusing just on downtown Boston, office vacancy rates have dropped from 18 percent three years ago to 12 percent and we've begun to hear about both old buildings being refurbished, and the potential for new office building sometime over the 2-3 year horizon. Quite a change from when I arrived here in early 1991.

Now I'd like to be able to trace for all of you a set of strong linkages between payment system developments and this economic recovery, but the fact is I would be stretching things considerably if I tried that. But without continued improvement in our payments system, the efficiency of our capital markets which has so clearly been a factor in longer-run economic growth over many business cycles would not be possible. Federal Reserve leadership has been important in this improvement, but to do so it must constantly question its

own role and the role of the private sector in providing payment services.

In a market economy, market forces normally produce efficient and effective results, and in the United States the market is expected to lead to efficient operations in the daily workings of the payments system. However, bringing significant improvements to the payments system would require that literally thousands of institutions identify and then agree to implement changes. Agreement for any substantive change among so many entities is nearly impossible to achieve without the leadership of the Federal Reserve or a similar institution.

Moreover, some aspects of the payments system have attributes of a public good that make public sector involvement desirable. Because it is the primary infrastructure for effecting transactions throughout the economy, broad and equitable access to the payments system has value to society

as a whole. This value is likely to exceed the value to private participants acting individually because of the "free rider" aspects of the benefits involved. By expanding the array of transactions that can be effected through the payments system, broad access confers a benefit to all participants, regardless of whether they are willing to pay for an expansion in access. Beginning with the Federal Reserve's original mandate to provide payments services and thereby eliminate non-par banking, the System has acted repeatedly to ensure broad and equitable access to the payments system.

A free market payments system such as that in the United States also cannot be expected necessarily to produce the optimal level of risk. Private participants choose their levels of risk exposure by weighing potential profitability against their willingness to bear risks. However, these calculations so not take into account systemic risk--the possibility that the loss or failure of one institution can cause

losses to other participants in the payments system. Consequently, overall risk is likely to be higher than is desirable from the standpoint of society as a whole. The Federal Reserve has led the banking industry to a better understanding of payments system risk and its implications and has acted, with regulation and services, to reduce such risk.

Finally, the operation of the payments system frequently involves substantial investments of capital in new technology to ensure continuing improvement in efficiency and effectiveness. Sometimes such investments will be deferred by private sector participants because new technology is risky, or because the benefits of investment appear to accrue more to the payments system as a whole than to them as individual participants. Leadership by Reserve Banks as major payments participants can be essential to effective long-term improvements.

Improving the payments system has been an active concern of the Federal Reserve System since its inception. In implementing monetary policy and in its efforts to safeguard financial stability, the System has found that it must be concerned, from its central bank perspective, with the protection and enhancement of the payments system. In recent years, both the Monetary Control Act (MCA) of 1980 and the Expedited Funds Availability Act of 1987 have recognized a vital role and responsibility for the Federal Reserve in payments system improvement. Although the specifics of the Federal Reserve's role are subject to change as the financial services industry and technology change, the public policy concerns that underlie our involvement in the payments system will remain the same: to ensure access, reduce risk, and increase efficiency through leadership and innovation.

With these overriding goals in mind, let me turn to the answers to two questions: what payments services do Reserve Banks provide and how good a job do they do?

Reserve Banks provide 3 types of payment services: (1) net settlement, (2) wholesale payments and securities transfer systems and (3) retail payments services. Net settlement is in some senses the quintessential central bank service. Central banks in every developed country provide net settlement as a service even if they are much less active in the payment system than the Federal Reserve is. Net settlement involves debiting and crediting the accounts of banks on a Reserve Bank's own books. Those entries are absolutely final--final in a way that no private-sector financial institution acting on its own could guarantee. Reserve Banks provide net settlement for all types of payments: check clearings, local ATM and point-of-sale POS networks, and local and national private sector automated clearing houses.

Retail, or small value payment services, come in several types. The first, the provision of coin and currency, which is a service to the U.S. Treasury as well as to the commercial bank customers of the Reserve Bank. Some of you may have visited the Boston Fed, and toured our currency operation which happens to be the third largest of any Reserve office. Each day we receive over \$70 million in cash and ship out over \$80 million in cash to meet the needs of the New England economy.

Check collection is another retail payment service. Again, visitors to the Bank are able to view the check processing operation which consists of a series of high-tech machines that read coded information from checks and sort them at a rate of about 100,000 per hour so they can be routed to the proper institution. In the First District alone, we process an average of 5.1 million checks each day worth \$3.2

billion. Nationwide Reserve Banks process nearly 80 million checks a day--about one-third of all those written.

You are all familiar with the increased use of direct deposits for payrolls and Social Security checks, which eliminate the need to distribute or mail checks that then must be deposited or cashed. Those direct deposits are executed here in New England by the Federal Reserve's own Automated Clearinghouse, or ACH. At the Boston Fed, our ACH operation transfers \$1.7 billion each day; again, nationwide the number approximates \$10 billion.

As substantial as that seems, it is dwarfed by the wholesale payments systems Reserve Banks operate. They are collectively known as Fedwire, and include both funds transfers and transfers of book entry securities. Fedwire allows financial institutions to transfer funds and securities with instantaneous settlement. The Boston Fed alone

transfers an average of \$140 billion each day over Fedwire; nationwide the figure is about \$1 trillion.

I noted earlier that the overall U. S. payments system daily averages about \$2 trillion in transfer volume--at least that's what we see at the Fed nationwide. Of that amount the Boston Reserve Bank moves between 150 and 200 billion dollars or about 10% of the total. With a pie that size, a very small slice can mean a great deal of money, so the systems we operate--what I like to refer to as the plumbing of the nation's banking system--are necessarily very precise and dependable.

Our goal for computer system on-line reliability is 100 percent and we nearly always achieve that. The basic point is that severe disruption can occur in the financial system if the Fed's systems go down, so we have invested an enormous amount in back-up facilities to minimize that possibility. And we are continuing our efforts to improve the

reliability of these systems. The 12 Federal Reserve Banks are in the midst of a conversion, consolidating 12 individual data centers into three, state-of-the-art regional centers, each providing back-up for the critical functions of the other two. This conversion is expected to be completed by year-end and, combined with new software development initiatives, will provide a highly reliable processing infrastructure well into the next century.

So that's what we do in the payments system. How well do we do it? Now I may be slightly biased when I say this, but I believe the Fed is one element of the government, broadly defined, that works well. That is not simply a statement of opinion--I think that when one looks at the recent work being done on what constitutes effective government, the Fed stands out. In particular, I'm referring to a book called Reinventing Government by David Osborne and Ted Gaebler from which the now popular term

"entrepreneurial government" is taken. This book is filled with examples of government at its best, implementing creative and cost-effective solutions to local problems in partnership with the communities involved. The authors cite several factors that contribute to this type of government: decentralized decision-making, a resulting sense of entrepreneurial enthusiasm, a sense of mission to get the job done rather than a specific program supported, and a dedication to bottom-line management. I read this and thought, "Wow, we've been reinventing government for at least the last 15 years in the Fed's payment service areas without really knowing it!"

Why do I say that? I say it because of three aspects about how the Fed operates--we compete, we measure up, and we have a sense of mission that drives everything we do.

First let me take the area of competition. Reserve Banks are not the only providers of some of the financial services I

mentioned earlier. Banks and other financial organizations also provide these services, and, under the terms of the Monetary Control Act of 1980, Reserve Banks must provide access openly to their services, price those services, and cover costs with revenues. At the time this law was enacted, Reserve Banks were providing services free only to member banks as somewhat of a compensation for maintaining relatively high levels of non-interest earning reserves. We had to make a 180° turn from essentially trying to ration a free good to actively competing for customers.

Many people predicted the Fed would fall on its face as it tried to compete with private sector firms. Initially their predictions were borne out. In the first few months of the new regime, check processing volume dropped by 22 percent in Boston alone as volume shifted to cheaper private sector check clearing services. Volume losses continued for two full years. With such steep losses, not surprisingly we were

unable to cut costs to keep in step, and costs exceeded revenues.

In the end, however, the Fed responded to the challenges of the marketplace. Adjustments were made in products, in deadlines, in service levels and in our cost structure and gradually revenues began to grow. In the process, as the framers of the Monetary Control Act intended, the U.S. payment system improved as well. In particular, the level of check float--which is, roughly speaking, the subsidy the Fed provides to the recipient of a payment that is the result of inefficiencies in the collection system--dropped dramatically from a daily average of \$9 billion to well below \$1 billion.

Second, let me tell you a bit about how the Reserve Banks measure their operations. One key measurement is, of course, how costs compare with revenues. This is tracked very closely--too much revenue and we may be "gouging", too little revenue and we may be competing unfairly. But this

is not all. For some time now--even before the Monetary Control Act--the Banks have measured their output and productivity using indices of volume and fully-loaded operational cost. These indices are constructed both to measure our progress against ourselves over time, and against other Reserve Banks at a moment in time. The competition is fierce to be the best unit cost Bank, and that competition has spurred many of us to levels of innovation and cost control that compare well with the private sector and with government as a whole.

In a study of Reserve Bank productivity from 1977 to the early 1990s, economists found that the Banks had a compound annual average rate of productivity growth of 4.9 percent. Over the same time period, the non-farm economy as a whole experienced a 0.6 rate of growth in productivity.

On the cost side, a comparison was made between rates of spending in the Reserve System and government as a

whole during that same period. The Reserve System's average annual rate of expenditure increase, after adjustment for differing accounting methodologies, was substantially under that of the Federal Government. Clearly the emphasis we have placed on the bottom line has paid off.

And we're not just concerned about the bottom line in our measurements. Quality is an equally important consideration. Over many years we have developed a set of measures that try to evaluate quality not just from our perspective, but from that of our customers as well. We know, for example, that reliability of our electronic payment systems is critical to users; we track that closely and have spent considerable sums in making a better than 75 percent improvement in the level of daily downtime over the last several years. Similarly, we know delays in correcting mistakes in check deposits affects funds availability--we had problems with excessive delays in the late '80s and now our

record of timely turnaround is the best ever. We do pay attention to these numbers.

Finally, I noted the Fed is driven by a strong sense of mission in its provision of financial services. This sense of mission is defined by the three goals I noted earlier--providing broad access, reducing risk and maximizing efficiency. We seek to improve the infrastructure of the nation's payment system and have implemented many groundbreaking projects aimed in that direction over the last several years. At the Boston Fed, in particular, we have headed up efforts to develop a new automation base for the System's electronic payments and securities services, and have led a research and development effort in digitized image capture for checks that will ensure this process can be used for nationwide payment collection when it is cost effective. I mentioned earlier our consolidation to three nationwide automation sites--that alone

should reduce System automation staff by over 500 (off a base of 1400).

The latest change we are making is to our management structure for all of the financial and related services we provide. Four of the 12 Reserve Banks will have responsibility for the different lines of payments services I mentioned earlier and their support. I am happy to tell you that retail payments for depository institutions, including both check collection and ACH, will be managed by the Boston Fed under the able direction of Paul M. Connolly, our newly-named First Vice President & Chief Operating Officer. This new nationwide structure should improve our ability to plan and implement strategic payment system changes and to coordinate such changes more effectively with the private sector.

In closing, I want to go back to the initial premise of my talk--that for the nation's money and capital markets to be broad, deep, effective and efficient, the nation's payments

systems have to perform optimally. Reserve Banks have a critical role to play in ensuring this happens--and we take a lot of pride in the fact that most of the time most participants in those markets--like yourselves--don't even know we're there.

Thanks for giving me the opportunity to speak to you today.