It is a pleasure to be here today to discuss some of the larger issues involved in the making of economic policy. I plan to cover a number of topics, many of which were suggested by Mr. Linder, with the hope that they will be useful to you in your studies of policy analysis. I always find it helpful to begin with an economic outlook for the United States to provide a context for the rest of my comments. Following my outlook, I will turn to the current direction of monetary policy in the United States and its implementation, as well as policy issues in the financial industry.

In the United States, a country where a premium is placed on innovation, nothing is more dynamic than the financial industry. That means that if someone likes to see things done the same way into perpetuity, then that person had better not become a central banker. Because monetary policy is tied to the ever-changing financial industry, policymakers must stay alert for changes in how policy affects financial flows and, ultimately, the economy. Permit me to make an observation: In my experience, I have noticed a tendency for people to look at the latest innovation in an industry—for example, derivatives in the financial industry—and to call that innovation a "problem." The idea I would like to leave you with today is that innovation and change are always with us, particularly those of us who work at making monetary policy. Change is a problem only if we hold onto rigid rules. I shall elaborate on these comments later in my talk.
The U.S. Economy

As I turn to my economic outlook, let me note that the long-term prospects for the U.S. economy are more hopeful than ever. That is because we are now taking major steps toward solving some difficult long-term problems, which should reap benefits for many generations to come. Namely, we have begun to deal with the longstanding budget deficit; with inflation, which had been as high as 5-1/2 percent at the beginning of this decade; and with international trade, thanks to the successful conclusion of the North American Free Trade Agreement (NAFTA) and the Uruguay Round of the General Agreement on Tariffs and Trade (GATT).

My discussion of the economic outlook for the United States begins with three key measures of economic performance--output, inflation, and employment. For the nation as a whole, real gross domestic product (GDP) expanded by 3 percent on an annual average basis in 1993. I believe the economy should grow at a faster pace in 1994--around 3-1/2 percent for the year or maybe higher. Inflation, as measured by the consumer price index (CPI), increased by 3 percent on average in 1993. I expect prices to rise at a similar pace this year. Earlier declines in oil prices and ongoing import competition are keeping prices well behaved in the near term. I will have more to say about inflation in a few moments. Unemployment, which fell to 6.8 percent on an annual average basis in 1993, should average about 6-1/2 percent for 1994. This improvement is better than it sounds because the U.S. Labor Department changed its methodology at the start of this year, with the result that measured unemployment is about half a percentage point higher, on average, than the rate that stems from using the old method.
Areas of strength will change little from last year. Consumer spending will still be strong, especially on durable goods like autos and household appliances. Residential construction will again make a solid contribution to growth, leading to continuing strength in related areas, such as home furnishings. As the pent-up demand for consumer goods continues to be released, the resulting purchases should support continued growth in manufacturing. Finally, capital spending by businesses, especially on computers and industrial equipment, should remain vigorous. The relatively low interest rates we have had in recent years are a factor in all of these areas. Recent employment gains should also provide support for further increases in personal income and consumer spending. On another promising note, imbalances have been worked down substantially on corporate balance sheets, due largely to a lengthening of debt maturities and equity issuance. Banks and real estate firms have also strengthened after dealing with earlier losses.

To be sure, there are also specific areas of weakness in the economy, which are essentially the same as last year: commercial construction, government spending, and international trade. Office construction still suffers from overbuilding in previous years, but I believe that we are slowly beginning to see a modest upturn. While state and local purchases will grow, government spending overall will be weak because expenditures on the federal level are being affected by defense cutbacks and deficit reduction. Of course, I do not view this "weakness" negatively because deficit reduction is long overdue.

The third negative factor is the outlook for net exports, which remains poor due mainly to the weak economic conditions of many of our largest trading partners. This situation abroad
is troublesome and likely to be reversed only slowly. However, the western European economies should begin to round the corner this year. Whatever growth in exports the United States does have will come from Mexico and other Latin American countries, as well as Canada—our largest trading partner—and Asia, excluding Japan. Computers, telecommunications, and other capital equipment, as well as services, should remain the leading exports. At the same time, imports will continue to outpace exports in growth as the increase in U.S. spending still outstrips that of many of our trading partners. The most recent report of our widening trade and services gap bears out my contention that international trade remains a weak point in the U.S. economy.

Current Direction of U.S. Monetary Policy

These weaknesses notwithstanding, it is obvious that we at the Federal Reserve Bank are not worrying about whether the U.S. economy can expand. If anything, we are worried about the possibility of too rapid and thus unsustainable growth contributing to rising inflation—an outcome we most assuredly want to avoid. Therefore, currently, the Fed has been tightening monetary policy so as to be less accommodative.

Certainly, we recognize that the globalization of the U.S. economy helps to dampen domestic price pressures. However, the economy has been growing at a rate well in excess of its potential. In general, as the gap between actual and potential output narrows, central banks begin to become concerned that the momentum will push an economy through its capacity constraints. Although there have not yet been any signs of inflation at the retail or output level in the United States, there have been some signs of it in a few industries. With the current course
of monetary policy, the Fed wants to reinforce the belief that inflation will not be a long-term problem. In that light, we want to contain inflation at this stage of the cycle.

Perhaps a short digression into the recent history of inflation in the United States will provide some useful background. In the late 1970s, Americans experienced inflation in the double digits accompanied by a stagnant economy. This so-called stagflation led to a strenuous effort by Chairman Paul Volcker and the Fed to bring inflation down. We succeeded in bringing inflation down from 13-1/2 percent at its peak in 1980 to its lowest point of about 2 percent in 1986. But inflation did not remain at 2 percent. In fact, during much of the 1980s, the consumer price index rose at a rate of around 4 percent to 4-1/2 percent. In the late 1980s, the Fed continued with its anti-inflationary stance, based on a desire for a smooth landing of the economy. However, in 1990, the recession began, so we did not have the smooth landing. (We also were at war in the Persian Gulf, which means we cannot tell whether we might have gotten the smooth landing under different circumstances.)

Since then, the imbalances that developed in the 1980s—such as overbuilding in the real estate industry and the over-leveraging of businesses and consumers—have been addressed. Inflation has moderated to around 3 percent, as I mentioned earlier. Now, however, we are approaching capacity limits and growing at a rate in excess of our potential. In this circumstance, we must worry about the possible recurrence of inflation later on. It is true that price breaks in oil have helped in the near term, and price pressures still look moderate. However, these pressures are mounting. The Fed is taking action now because the changes we make to monetary
policy typically take quite a long time to have an effect.

One of the topics that occupies the mind of a central banker is the question of the right level for inflation. The argument can be made that we should bring inflation down to 0 percent, and a few members of our monetary policymaking body, the Federal Open Market Committee (FOMC), have made this argument quite forcefully. However, an equally good argument can be made—and one that I agree with—that the optimal level of inflation is greater than 0 percent, due in part to measurement errors. I believe that when inflation hovers in the double digits, it is clear that the level can be brought down. But at around the 2 percent level, it is quite possible that we have reached something close to stability. Another way to look at the inflation problem is to say that the economy has reached stable prices when people stop considering inflation to be a factor in their decision-making. That level of inflation may indeed be higher than zero.

Also, although one of the goals of the Fed is to reduce inflation, we should not do so without taking into account transition costs and social preferences. There always will be tradeoffs: too quick an adjustment can cause too much pain for businesses and consumers. Indeed, it may be more difficult, in terms of lost output, to go from 3 percent to 2 percent inflation than to go from 7 percent to 6 percent. Also, nominal wages have rarely, if ever, declined in the U.S. economy in the recent past. This fact suggests that the loss of output at zero inflation could be substantial. I firmly believe that policymakers must be attuned to these social costs and sometimes take a more gradual path toward lower inflation.
Implementation of U.S. Monetary Policy

Switching from current conditions, I would like to talk now about the implementation of monetary policy, which will lead logically to the final section of my talk on the financial industry. The increasing complexity of the financial industry has made some policy indicators that had been most useful in the past less useful to us now. One good example is the decline of the monetary aggregates as reliable indicators. To briefly explain, the shift into mutual funds and other liquid investments has made it more difficult to follow the growth of money because these funds are no longer in the banking system. Therefore, the Fed stopped targeting M1 and M2 a while ago because they do not tell as much as they used to. That leaves us with no intermediate target for monetary policy as there was when monetary aggregates could serve as a meaningful guide. Instead, we now need to look at a variety of indicators, most prominently forecasts of GDP, employment and unemployment, the consumer price index, foreign exchange rates, and many others as well. In addition, at the grass-roots level, so to speak, all Federal Reserve Bank presidents, such as myself, talk with directors on their boards and other business people in their districts to pick up anecdotal information that can supplement the statistics we use.

As I mentioned earlier, financial markets are undergoing tremendous changes, which affects the way we implement monetary policy. However, this situation is nothing new. In the 1960s and early 1970s, the Fed dealt with how a run-up in interest rates caused rapid disintermediation at banks. In the 1980s, we saw a major disruption in the government securities markets because of fraud and poor practices in financing securities holdings. There was also the stock market crash in 1987. Now, in the 1990s, the newest financial wrinkle is derivatives.
would like to point out that the term "derivatives" is often used too broadly and derogatorily. Some derivatives, like options, that have been used for years have proved their worth. Others, like caps and swaptions, are not so well known yet, and market participants may not yet understand them.)

The point I am trying to make is that, in the face of such upheaval, our flexible, liquid, and deep financial markets have served us well. They have found ways to ski over moguls smoothly, so to speak. So although some people may be inclined to think of derivatives as a problem that must be solved, I am more inclined to see them as another in a long line of innovations with which policymakers have had to contend. That does not mean I believe that regulators should ignore derivatives. But I do believe in the rule I alluded to at the beginning of my remarks: Policymakers must be able to see the inherent problems in financial innovation, but also be able to deal with the changes. That is the only way monetary policy can keep up with changes in the industry to which it is so closely tied without stifling the creative dynamics of that industry and, in turn, choking off valuable growth and change in the economy as a whole.

Issues in the Financial Industry

Having spoken about the increasing complexity of the financial industry, let me discuss more specifically what kind of dramatic changes are taking place in the United States that are affecting the transmission of monetary policy. I would like to talk about three particular changes: the changing structure of banking, regulatory consolidation, and new technology.
First, the changing structure of banking. In the United States, the market share of banks is declining. The numbers show that the share of credit-market funds for all depositories has declined from about 45 percent in the 1970s to nearly 30 percent over the first three years of this decade. Over that same interval, the market share of banks declined from nearly 30 percent to 20 percent. Banks are merging, acquiring and being acquired, thus leading to consolidation in the industry. The consolidation has been spurred by technology, but it has also accelerated because of the strong competition from nonbank intermediaries that now offer many of the same services that banks offer. It has long been the opinion of the Fed that the regulatory burden on banks in the United States must be lightened to allow them to compete with nonbanks. We have seen some movement in this direction with more banks offering mutual funds, for example.

Mentioning the phrase "mutual funds" puts me in mind of a few of the interesting effects they have caused. Recently, there has been a shift in the economy from savings deposits and certificates of deposits (CDs) to mutual funds. Besides contributing to the decline in usefulness of our money aggregates, the introduction of mutual funds also allowed the presence of new investors in the financial markets. This shift into the stock market via mutual funds raised the common fear that if securities prices were to decline significantly, then there could be a panicked exodus from mutual funds, potentially making a market decline even worse. Recently, though, we did not see this fear materialize after our tightening in March, when the markets reacted by heading down. Small investors stayed in the market, although new inflows into the market via mutual funds declined dramatically. However, it is true that the rise in the size of mutual funds since their introduction is still a new phenomenon, and we do not know exactly how these new
investors will react to downturns in the markets over the long term.

The second change in the financial industry is the possibility of regulatory consolidation. Right now, there is on the table a proposal by the Administration to combine the four current bank regulators into one new regulator. Under the proposed structure, the new regulating agency would be less independent of political bodies. In addition, the Fed would no longer have supervisory and regulatory powers. To those in Sweden, where I believe four major banks dominate the industry, this proposal may seem reasonable. You could rightfully ask, Why do we have so many regulators? In the United States, though, even with consolidation, there are more than 11,000 banks. In response to the Administration's proposal, the Fed has proposed cutting back to two regulators while leaving the Fed as one of the regulators. Although we can certainly see the need for consolidation, the Fed is also interested in keeping regulation from becoming politicized. Also, we believe that it is absolutely crucial for the Fed to keep the supervisory function because of its usefulness in informing monetary policy and, most importantly, in preventing systemic risk.

The third area of dramatic change in the financial industry is the wider use of technology, such as advances in communication and financial theory. Before I go into more detail, I want to emphasize that I am no financial engineer or "rocket scientist" as those on Wall Street who are inventing new variations of financial derivatives are called. However, I would like to focus the remainder of my comments on derivatives not just because they are the latest innovation, but because banks use them to manage risk. Since the Fed regulates banks, we want to understand
what risks they are taking. We also must assess whether there might be cause for concern about systemic risk.

The dominant dealers in the United States are the largest commercial banks, with more than 90 percent of the dealer derivatives business concentrated in these largest institutions. Forward contracts are the main area of U.S. bank dealer derivatives activity, followed by swaps and options. To provide a bit more perspective on why the Fed is interested in derivatives, let me give you a sense of the revenues and losses incurred. In 10 years of derivatives trading, trading revenues among these banks amounted to nearly $36 billion. Cumulative trading losses were a small fraction of that number at $19 million. More recently, some banks have probably sustained more trading losses, but since markets move two ways, this should not be surprising. Furthermore, no commercial bank has failed because of derivatives activities.

Clearly, the Fed has a comparative advantage in assessing systemic risk as the lender of last resort in the United States. In fact, around the world, central banks are always worried about low-probability events that others--say, practitioners in the field of derivatives--do not have the incentive to worry about. I think it goes without saying that because derivatives have been a driving force in integrating global financial markets, the concern about systemic risk is more than justified. But I believe there may also be some other areas of concern that should be addressed. For instance, since the wider use of derivatives is relatively new--they really only grew in importance in the 1980s and have finally started receiving publicity in the 1990s--it may be that derivatives have an effect on the transmission of monetary policy that policymakers need to
consider. More research in this area is needed, but I think I can safely make the argument that derivatives introduce new layers of intermediation into the system, thus making the response to monetary policy less direct. Credit flows are being intermediated differently from how they were before derivatives existed, and balance sheets, too, have been affected, because most derivatives operations are reported off the balance sheet. Although they are used to reduce risk, derivatives are also used for speculative purposes. Let me say it again, though: If there is one thing I am certain of, it is that the financial industry will change. These changes are merely the latest ones central bankers face.

An important notion to remember is that even though the types of risk today are different from what they were yesterday, thanks in part to derivatives, the basic sources of risk have not changed at all. Credit risk and market risk are still with us and will continue to be with us. Derivatives may, however, change the incidence of risk, that is, where it is concentrated. This new twist can affect how the impacts of policy surface. For instance, changes in monetary policy have always had an effect on the stock and bond markets. We know that. Now, because derivatives permit market participants to isolate a specific risk—for instance, interest-rate risk—then that may mean that these securities will be more volatile and, consequently, the reaction to changes in monetary policy may differ from past practice. Another concern about the transmission of monetary policy in this new environment comes in the area of foreign exchange. For example, derivatives could make it easier for a firm to protect itself from certain monetary policy changes by taking positions in financial markets of another country.
Before leaving this topic, I would like to offer one practical example of how derivatives are affecting the intermediation of credit flows. They are allowing the re-intermediation of the banking industry. How? Through their derivatives operations, banks are now dealing with counterparties that generally have higher credit ratings than the ratings of traditional commercial borrowers. Also, larger firms that left the banking industry to go into financial markets on their own can now turn back to banks for derivatives. This development is helping banks in two ways—by generating fee income and by reducing their credit exposure. That is to say, there is still credit exposure, but it is small compared with other credit risks banks take on. In my opinion, this is generally for the good of the banking industry.

Apart from the larger issue of whether derivatives affect the transmission of monetary policy and vice versa, there is also the question of whether to regulate their use. We must be careful not to allow asymmetrical reaction in the marketplace to dictate our response—that is, to do nothing when the markets go up, but to do something if they go down. As with any new technology, regulators must bear in mind that rigid rules are not likely to work in a dynamic situation. The burden must be put on private companies to know the risks to which they have exposed themselves. The Fed issued guidelines for its examiners late last year that instructed examiners to focus their attention on derivatives activities at banks. However, we did not impose rigid rules, as some in our Congress might, or limits on capital requirements. Instead, we called for an examination of internal safeguards, and we prefer examiner discretion to the introduction of rules and regulations.
With derivatives, in particular, one problem is that they are difficult to value. Their various components may not all trade in a market or the market may be illiquid. But since the derivatives must be valued for marking-to-market purposes or to report them to regulators, they must be valued by mathematical models. That means that regulators must develop the expertise to ensure that the prices generated by these mathematical models are reasonable estimates of value. But this response is surely better than adding regulations that may in and of themselves cause more disintermediation in the financial industry. To augment the supervision of the industry with regard to derivatives, the Fed would also like to see a greater reliance on capital standards, as promulgated in Basle. The Fed also endorses the recommendations by the Group of 30 for strong management oversight, but believes they do not go far enough in addressing systemic risk.

Let me offer a few specifics on two other issues raised by the use of derivatives. On the legal side, efforts must be made to improve the legal certainty of derivatives contracts. The Fed advocates having legal jurisdictions throughout the world to confer legal certainty on netting arrangements because netting would greatly reduce systemic risk. In terms of disclosure, the Fed would like information on derivatives to become more transparent. As it stands now, since derivatives may be off-balance sheet items, they may be seriously under-reported on public financial statements. Overall, though, we recognize the use of derivatives as a legitimate method to manage different forms of risk, something the Fed emphasizes for all financial institutions.

Conclusion

In conclusion, the U.S. economy is on strong footing, although the possibility of rising
inflation in the future is a concern. I am pleased with the prospects for sustainable long-term growth, thanks in large part to efforts to deal with the federal budget deficit, inflation, and international trade issues.

Against this backdrop, the challenges presented to policymakers by changes in the financial industry are the same problems as always, merely in different forms. It used to be disintermediation, now it is derivatives. Flexibility, not rigid rules, will keep monetary policy current. As the financial industry has changed, we have had to change the emphasis we put on certain policy indicators, for instance. At the same time, as central bankers, we must continue to worry about how our policies are transmitted in the changing environment of the financial industry. We have surmounted earlier challenges, though, and I believe we will continue to do so.