Mr. Chairman and Members of the Committee:

We are happy to testify today, at your request, on the issues raised by recent changes in the value of the dollar on foreign exchange markets in general and by the recent changes in the exchange rate between the American dollar and the Japanese yen. These changes can influence our international trade, production, employment and inflation, thus affecting our overall economic health. Our comments today represent an interim report on our ongoing work in this area.

The exchange rate between the dollar and the Japanese yen has received considerable attention in recent months. Concerns that this rate has not reflected fundamental economic factors have generated charges that Japan manipulates the exchange rate.
of its currency to gain an unfair trade advantage. These charges have added to the tensions with Japan over other trade issues.

This concern over the yen-dollar exchange rate also comes at a time when many observers are raising questions about how well flexible exchange rates and the current international monetary system are working. Ten years ago, when the system was adopted, two widely held beliefs were that (1) flexible exchange rates would avoid sustained inappropriate currency values and (2) domestic economic policy formulation would be freed from the burden of international payments considerations. These propositions are being questioned today.

Although our work on these issues is continuing, we have reached several preliminary conclusions:

--First, exchange rates in general cannot be adequately explained by looking only at international trade or specific bilateral relationships. Many variables, including the balance of trade, capital flows, and differences between countries' national economic policies and economic conditions, affect exchange rates. Unmeasurable factors, such as perceived political risks and expectations, also play a critical role. A consequence of these complex determinants is that foreign exchange markets can yield exchange rates that have adverse trade and employment consequences for us or for other nations at particular times.
Second, looking particularly at the yen-dollar exchange rate, we have seen no evidence to support charges that the Japanese Government manipulated or artificially depressed the value of the yen. On the contrary, Japanese foreign exchange intervention, together with other actions during this recent period, would tend to have strengthened rather than weakened the yen.

Third, as international trade and investment have become much more important to the United States over the past decade, domestic economic policies and exchange rates have become more dependent on each other. Domestic economic policy decisions affect exchange rates. At the same time, changes in exchange rates affect the policy's success in reaching goals, such as high employment or low inflation. Contrary to expectations, flexible exchange rates do not allow countries to pursue independent economic policies without considering the international consequences.

Finally, although currency fluctuations have created genuine problems and some observers have called for modifying the floating exchange rate system, there is no consensus as to whether changes would be desirable and no agreement on what would constitute a better system.
I will discuss each of these points in greater detail, starting with the issue of exchange rate determination. My testimony will focus on events between 1980 and today, although I will make some references to policies and economic conditions that prevailed during the 1970s.

**Exchange Rate Determination**

The world's economies are linked by substantial international trade and capital flows. Some system is required to adapt to changes among these economies that occur over time. Under flexible exchange rates, currency values change to accommodate the differences. Any variable that changes the relative economic condition of a country will affect the exchange rate of its currency. Although it seems that this would produce an endless list of variables to watch, market participants and researchers point to some fairly basic ones, including:

-- Relative price levels.
-- Relative interest rates.
-- Relative income levels and money supplies.
-- Relative trade and investment flows.
-- Political risk, such as risk of government-directed economic changes or exchange controls, and
-- Expectations of changes in all these variables.

Most of these determinants are strongly influenced by economic policies and each other, which further complicates explaining or forecasting exchange rate movements.

Further, it is impossible to look at one exchange rate in isolation from all others, since foreign exchange markets are so
closely tied together. The dollar is the basic currency of the flexible exchange rate system. Its value with respect to any one currency must be in line with its value with respect to all other currencies. This fact points out the limitations of looking only at trade flows between two nations to explain the exchange rate between their currencies.

Furthermore, market observers generally agree that expectations of future events and policies play at least as important a role in determining exchange rates as does the current situation. As a result, the foreign exchange market is extremely sensitive to news that alters expectations. The prompt reaction of foreign exchange markets to "news" explains to a great extent why exchange rates are so hard to forecast, particularly in the short term. Nevertheless, several useful conclusions do emerge from the analysis of the determinants of exchange rates.

--Analyses that look only at bilateral trade balances or the relative price levels or inflation rates of two nations are overly simplistic and invalid. Relative inflation rates of two nations may set a long-term trend for changes in the exchange rate between their currencies, but the daily figure, or a weekly, quarterly or even annual average exchange rate will diverge significantly from the basic trend line.

--Market experts do not see government intervention as a way to affect the long-run value of a
currency. There is disagreement about intervention designed to moderate exchange rate fluctuations without changing the fundamental direction of the currency's value. Advocates of such intervention argue that it can lessen the uncertainty and adverse trade effects associated with floating exchange rate changes, while opponents counter that such intervention cannot succeed. Foreign exchange market responses to expectations of a government's intention and mistakes in timing the intervention could prevent it from having the expected result.

THE YEN-DOLLAR RELATIONSHIP

As I mentioned earlier, the yen-dollar exchange rate has been the focus of substantial attention. Much of this attention reflects the underlying tension in U.S. trade and economic relations with Japan.

During the latter part of 1982, the value of the dollar rose considerably in relation to the Japanese yen, reaching a high point in early November, when it was worth ¥278. Between January 1979 and November 1982, as shown in Chart 1, the yen fell 34.1 percent in nominal terms relative to the dollar. Adjusting for the differences in the national inflation rates, we see that the yen depreciated 37.9 percent in real terms. Other analysts have chosen different base periods for the comparison, but the conclusion is unchanged—the dollar appreciated substantially against the yen.
CHART 1

YEN-DOLLAR EXCHANGE RATE
JANUARY 1979 TO FEBRUARY 1983

INDEX FOR INFLATION ADJUSTMENT: 1975=100
Bypassing for the moment the question of how the yen-dollar exchange rate got to such a level, let's ask if the rise in the dollar relative to the yen was unique. The answer is no. As chart 2 shows, over the same January 1979 to November 1982 period when the yen fell by 34.1 percent, the British pound fell 22.8 percent, the West German mark fell 38.3 percent, and the Swiss franc fell 31.4 percent.

Adjusting for differences in national inflation rates, we see the same pattern. The yen fell by 37.9 percent, the pound by 8.9 percent, the mark by 45.0 percent, and the Swiss franc by 51.0 percent. Choosing a different base period for comparison would not materially change the rankings of the currency depreciation rates against the dollar; the dollar appreciated against many major currencies, not just the yen. The rate at which the dollar appreciated against the yen was not unusual.

From the low of Y278 to the dollar, the yen has appreciated 15 percent and was Y 236 last week. Other currencies have similarly adjusted in value, suggesting that the dollar "overshot" its equilibrium value in late 1982. Such overshooting has sometimes been explained as a result of exchange rates reacting faster to financial variables than to real or merchandise flows between countries.

Overall tension in U.S.-Japan economic relations better explains the attention given the yen-dollar exchange rate than structural problems in the yen-dollar rate. The U.S. merchandise trade account with Japan shows that we import more than we export. This deficit with Japan has become a regular feature of
RELATIVE CHANGES IN EXCHANGE RATES FOR THE DOLLAR

(First Quarter 1979 Exchange Rate = 100)

Index: U.S. Dollars per unit of foreign currency.
U.S. international trade patterns, amounting to nearly $16 billion in 1981 and $17 billion in 1982. The bilateral trade deficit has persisted during periods of low and high exchange rates between the yen and the dollar. This negative trade balance with Japan contrasts dramatically with the positive trade balance we have with the European Community as a group, which totaled $22.9 billion in 1981 and $16.9 billion in 1982. These relative trade patterns explain, in part, the emphasis upon the yen-dollar exchange rate despite similar appreciation of the U.S. dollar against European currencies.

The persistent merchandise trade deficit with Japan and relatively higher American inflation during 1979 to 1982 seem inconsistent with the strength of the U.S. dollar. Holding all else constant, a persistent deficit and the higher U.S. inflation should have weakened the dollar. Thus, the yen's depreciation was greeted quizzically by American businessmen, some of whom argued that the Japanese Government had to be "rigging" the value of the yen. Although a government could attempt to do this through central bank intervention, it would result in an increase in official foreign exchange reserves. This did not happen between January 1982 and January 1983, when Japan's reserves decreased by $5.2 billion, indicating that Japan was supporting rather than depressing the yen's value during this period. Additionally, to maintain a consistently undervalued currency during the 1973-82 period, the Bank of Japan would have had to purchase "exceptional" amounts of other currencies. Our
analysis suggests that Japan's reserves did not grow at exceptional rates over the 1973-82 period but were generally consistent with reserves in other industrial nations.

The yen-dollar exchange rate at least partly reflects differences in the economic policies pursued by the United States and Japan during this period. Our analysis is not yet complete, but we have identified several factors which have affected the yen-dollar exchange rate.

High real interest rates in the United States partly explain the dollar's strength against the yen and other currencies. High return on investments proved attractive to foreign investors. The persistent strength of the dollar despite the high U.S. merchandise trade deficits noted earlier indicates the importance of this factor.

The decline in the U.S. inflation rate also contributed to the dollar's strength, particularly since the decline has been faster than many observers anticipated. If the generally expected rate of inflation remains low, this also may contribute to the dollar's strength.

Another possible and partial explanation of the yen-dollar rate is the opportunity that Japanese investors took to diversify their portfolios when capital controls were relaxed. In 1981 and 1982, net outflows of capital from Japan were $7.4 billion and $15.7 billion, respectively. Many of Japan's capital controls were relaxed administratively during the 1970s or by the Foreign Exchange
and Foreign Trade Control Law in 1980. Since Japan's savings exceeded its demand for savings (composed of investment and the government deficit), net Japanese capital outflows were consistent with underlying economic conditions.

Aside from the Japanese central bank's intervention in foreign currency markets mentioned earlier, Japan has taken other measures to support the yen's value. A relaxation of monetary policy was delayed during this period because of the weak yen. In addition, despite the trend toward liberalizing capital markets, Japan attempted to discourage capital outflows by administrative guidance. These actions appear consistent with the 1970's policies of moderating fluctuations in the yen's the value on exchange markets. This type of intervention is envisioned in the International Monetary Fund's Articles of Agreement.

Several other factors have put downward pressure on the yen. At the beginning of 1982, many forecasters projected that Japan's current account would have a surplus of $15 billion to $20 billion for 1982; the actual surplus was $6.9 billion. Essentially, the foreign exchange market reacted against the yen since the Japanese current account was not as strong as everyone expected. The yen-dollar exchange rate in early 1982 was based in part on these expectations; the rate later in 1982 reacted to news that the earlier expectations were unrealistic. Additionally, persistent threats of protectionist restraints on Japanese exports may have put further downward pressure on the yen.

Other factors which cannot be overlooked when considering the strength of the dollar vis-a-vis the yen and other currencies are
the political and world economic uncertainties during this period. Traditionally, the United States attracts many overseas investors who are looking for a place safe from political and economic turbulence. Debt problems in Eastern Europe and Latin America increased the uncertainty in the international monetary system as did the overall political uncertainty and tension of 1982.

OBSERVATIONS ON THE FLEXIBLE EXCHANGE RATE SYSTEM

The recent history of flexible exchange rates and macroeconomic policy in economies open to the rest of the world demonstrates the close ties now existing between international and domestic economic conditions. The U.S. economy and its performance in the post-war era have had substantial impact on foreign economies because of its dominant size and the importance of the dollar in world finance. The world economy now has a more important influence on the U.S. economy as well. In addition, the shift to floating exchange rates has influenced how the world economy affects the United States.

A number of the problems popularly attributed to floating exchange rates are in reality the consequences of the United States being an open economy with internationally integrated goods and capital markets. American exporters are affected by economic conditions in other nations, not just by economic conditions at home. American investors seek overseas investment opportunities. Likewise, overseas investors are attracted by opportunities here. This openness removes any opportunity that may have once existed to insulate the United States from international economic changes.
However, these influences are not evenly distributed over the economy. Some industries deal in products that are extensively traded internationally, while other industries are relatively insulated from world trade. Housing construction is an obvious example of an industry not tightly connected to world trade so it does not react substantially to exchange rate fluctuations. Other industries that compete in world markets can be severely affected.

If we were to rank American industries by their international competitiveness some industries obviously would be at the top of the list and able to sell internationally at most exchange rates. Industries at the bottom of the list operate at severe cost disadvantages relative to foreign producers. At any plausible exchange rate, American consumers would be able to buy cheaper goods from overseas producers. Industries in the middle of the list may or may not be competitive in foreign markets, depending on prevailing exchange rates. When the dollar is strong, these industries will find themselves priced out of international markets. This was the case during 1982. During 1978 and 1979, conversely, the weak dollar enabled these industries to be more competitive in foreign markets.

Since it helps determine international trade, a floating exchange rate can influence the results of national macroeconomic policy. The United States, for example, has relied on a tight monetary policy, that by itself, would cause a decline in economic activity. But since the tight money contributed to the strength of
the dollar, this effect apparently was amplified. Imports became cheaper and U.S. exports more expensive, leading to further reduced industrial output and employment. The influence of exchange rates on the success of macroeconomic policy is unavoidable in an open economy with flexible exchange rates.

The persistence of the strong dollar and the worldwide recession have led to a number of suggestions to modify the international monetary system to lessen exchange rate fluctuations or reduce the sensitivity of economies to international economic disturbances.

While the desire to alleviate the problems thought to be caused by flexible exchange rates is understandable, there is no consensus supporting either the need for change or specific types of changes to make.

Reform proposals are not free from some of the very problems of floating exchange rates or have limitations of their own. For example, the idea of adopting target zones within which currencies would be permitted to fluctuate, as one proposal suggests, is limited by the problems inherent in fixing the target and deciding when it should be changed. Should the target be pegged to national prices or should interest rate differentials be considered? Should the peg change monthly, weekly, or quarterly? If the rules for setting the target are not public knowledge, there can be substantial uncertainty about possible changes in the target. This uncertainty parallels the uncertainty of forecasting a floating exchange rate. If the rate-setting rules are announced, however, there is some possibility that this could form the basis for speculative behavior and major currency moves could be either accelerated
or delayed depending on anticipated rule changes. We do not know at this stage whether this speculation would be stabilizing or destabilizing. This situation should be contrasted with the consensus that did exist 10 years ago concerning the deficiencies of the Bretton Woods System and the need for major changes.

Where a consensus does lie is in the recognition that domestic policy options in an open economy are more constrained than in a closed economy. Implementation of domestic economic policy without explicit recognition of the international constraints and costs of policies can be very disruptive to exchange markets and, in turn, can prove costly to the economy.

Mr. Chairman, this concludes my prepared statement. I will be happy to answer any questions you or your committee may have.