I was invited to this conference, I assume, as one who frequently comments on monetary policy. My overview, however, may disappoint our Kansas City Fed hosts—assuming they are looking for some controversy to enliven our proceedings—for I will say nothing nasty about the monetary authorities in the present context. The strong dollar is not primarily a monetary phenomenon.

I will, perhaps, redeem my reputation by saying at the outset that I dissent from the standard view expressed at this conference that the dollar is massively overvalued today and must inevitably depreciate substantially over the years ahead. In my view, there is instead roughly an even change that the dollar will appreciate rather than depreciate.

As I read the conference papers and hear the discussion, there is considerable agreement that the strong dollar is a real and not a monetary phenomenon. Ron McKinnon emphasized that monetary policy is concerned with nominal magnitudes. But over the past few years we have seen changes in the real exchange rate and in the real rate of interest that are far beyond what we could reasonably expect to occur for purely monetary reasons.

The model

As a first approximation, the appropriate model for exploring these recent exchange and interest rate developments is one that concentrates on real considerations and omits monetary ones. There seems to be general agreement on the characteristics of the appropriate model. Above all, the model must provide an integrated treatment of stocks and flows of assets. The exchange rate is an endogenous variable and we want to use the model to understand how changes in exogenous variables have yielded the strong dollar.

Assume that there was an initial equilibrium in about 1980 with an
approximate current account balance. If we want to be fancy we set up the model so that the initial equilibrium has a slight current account surplus, which means that the United States was investing in foreign assets. With that wrinkle, our initial conditions involve accumulation of net foreign assets at a rate that stabilizes the ratio of those assets to GNP.

Then, in 1981 there was a major change in U.S. fiscal policy, and that change disturbed the initial balance-of-payments and exchange rate equilibrium. I discuss the precise nature of this fiscal policy change shortly—the details are very important. At the moment, though, simply note that the new fiscal policy produced a major increase in the real rate of interest in the United States.

The increase in the real rate of interest led initially to an attempt by foreigners to move capital into the United States and by U.S. residents to reduce capital outflows. That initial effort was unsuccessful, but did have the effect of bidding up the value of the dollar. Over time the higher dollar induced a current account deficit—the current account reacts with a lag to a changed real exchange rate. This current account deficit is the real counterpart of the capital inflow.

After the short-run current account adjustment is complete the dollar has greatly appreciated from its initial level in 1980. There is a large current account deficit and capital account surplus. These conditions are all part of the same phenomenon—the response of the economy to the change in fiscal policy.

Now consider the critical features of the integration of stocks and flows in our model. The capital flow year by year changes the stock of U.S. net foreign assets. A condition for a sustainable situation is that net foreign assets, whether they be positive or negative, cannot go to infinity as a percentage of GNP. So we can make this simple observation: at some point the annual capital flow into the United States must slow and this reduced capital inflow must be accompanied by dollar depreciation. The reason is that there is nothing in the model so far other than dollar depreciation which can change the current account and the corresponding capital inflow.

Rational market participants are, of course, assumed to understand this model. All is in order if dollar depreciation proceeds at a rate equal to the differential between U.S. and foreign interest rates. This gradual depreciation of the real value of the dollar slowly reduces the current account deficit. A new long-run equilibrium is established when the current account deficit has declined to the point where the growth of U.S. net foreign liabilities equals the growth of GNP.

Calculations by Paul Krugman and others suggest that these numbers don't fit together. If the dollar depreciates at a rate given by the interest differential, then the dollar will be too high for too long and the accumulation of U.S. net foreign liabilities relative to the size of the economy will become
unsustainably large. Thus, it is argued that the dollar must for a time depreciate much more rapidly than the rate given by the interest differential.

But there is more to this argument. The fiscal policy change in 1981 is unsustainable because the price tag—the budget deficit—has proven too large. Therefore, when the budget deficit is reduced—as it must be—the initial fiscal disturbance that raised interest rates will be reversed. U.S. real interest rates will fall and that event will cause the dollar to depreciate rapidly. In other words, once the interest rate prop holding up the exchange rate is removed, the dollar will crumble.

These are the considerations that have led almost all participants at this conference, and many other analysts, to believe that the dollar is unsustainably high and must without question fall at a rate much greater than the differential between interest rates in the United States and abroad. The logic is straightforward and yet the result is troubling. How can the market, which has been demonstrated to pass economists' tests of market efficiency and rational expectations with a grade of at least A-, be committing such a massive and obvious mistake? Perhaps it is the economists, who are not notoriously successful speculators, who are making the massive mistake.

**Modifying the model**

If the model is yielding the wrong results it is not because the logic is wrong. Something must be left out, or the premises must be wrong or incomplete. To alter the results I will break into the model in two directions, first by examining more fully the nature of the fiscal policy change in 1981, and second by examining the relevance of economic conditions abroad.

Most observers have concentrated on the deficit effects of the 1981 fiscal policy change. At this conference there has been only a little discussion—very much too little—of the effects of the change in the corporate tax laws on the after-tax real rate of return on new business investment. This is an important issue because in our general model there is an equilibrium condition that says that the real rate of return on financial assets, or what may be called the real rate of interest, has to be connected to the real rate of return on physical capital.

The equilibrium condition at the present high level of abstraction is that real rates of return on physical and financial capital must be the same. These rates of return must, of course, both be measured on an after-tax basis. This equilibrium condition is of exactly the same type as the one that the expected rate of depreciation of the dollar has to equal the difference between the real rate of interest in the United States and abroad.

The fiscal policy change in 1981 reduced business taxation by a very large
amount. In addition—and here is my one reference to monetary policy—the lower rate of inflation after 1981, engineered in part by the Federal Reserve, interacted with the depreciation provisions of the corporate tax law to further raise the after-tax real rate of return to new investment. This effect occurs because original cost depreciation is more valuable to firms at lower inflation rates.

In the short run the pre-tax internal rate of return on new investment cannot be affected by changes in the budget deficit or tax policy. Among other things, the pre-tax return is determined by the capital/labor ratio in the economy. The stock of capital initially is what it is. Because the capital stock is very large compared to the annual flow of new investment, the pre-tax rate of return is fixed in the short run by the marginal product of capital at the initial capital stock. The reduction in the tax rate applying to new investment must, therefore, in the short run increase the post-tax real rate of return on new investment. Given an increase in the post-tax rate of return on new physical investment, the after-tax real rate of return on financial assets must also rise.

Most of the increase of the real rate of interest after 1981 is due to this change in taxation of capital. As emphasized already, the tax reduction was due partly to changes in the tax law and partly to the lower rate of inflation. Nevertheless, the question of the relative contributions to the high real rate of interest of the budget deficit per se and of the change in the taxation of capital remains. I don't know the relative contributions and neither does anyone else. But my considered professional judgment—otherwise known as a hunch—is that we should be talking about a two-thirds-one-third split, with the tax effect accounting for the two-thirds and the budget deficit for the one-third. That is a good enough guess for present purposes.

The 1981 change in business tax policy is potentially a permanent change in our tax law. The lower rate of inflation is also potentially a permanent change in U.S. policy. My interpretation of the strong dollar is that the market is betting that the necessary reduction in the budget deficit will be accomplished without a major increase in business taxes. If the real rate of return on capital is maintained, then policy adjustments will not have a major effect on the real rate of interest and will not much affect the basic determinants of international capital flows.

Indeed, I challenge anyone to find me an example of a country that has suffered a depreciating currency as a result of putting its fiscal house in order. The likely result of putting our house in order—if we can do it in a constructive way—is that we will find ourselves in a stronger position rather than a weaker one. The dollar will then appreciate further rather than depreciate.

Maintaining an attractive investment climate in the United States will sustain a high ratio of new investment in plant and equipment relative to GNP.
As the U.S. capital stock grows relative to the path it would otherwise follow the marginal product of capital and the real rate of return will gradually fall. However, this process will be a slow one because the annual flow of even a high rate of investment is small relative to the capital stock.

Much of the new investment, however, will be financed from abroad and the returns from the investment will have to be devoted to servicing foreign creditors. There is nothing unsustainable about such a situation. What would be unsustainable would be accumulation of foreign debts to finance current consumption, for in that case there would be no extra capital formation to provide the income to service the debt. The budget deficit matters insofar as it depresses national saving. The evidence is not all in on the effects of recent deficits on saving, but the deficits seem to have reduced national saving to some extent, although not by the full amount of the deficit.

There are several other directions in which we can break into this basic model. The current account balance could change at the present exchange rate. First, European and Latin American economies should recover, raising U.S. exports. Second, the U.S. recovery after 1982 has involved a very high level of domestic investment, and that investment was partly satisfied by imports of capital goods. This component of import demand will fall as the cyclical part of the U.S. investment boom tapers off. Investment might be high in the secular sense but still not as high as experienced in the early stages of recovery.

Third, if countries abroad change their domestic policies to promote growth and capital formation their currencies will strengthen against the dollar as capital flows to these countries instead of to the United States. But it is very unlikely that other countries will all change their policies together. Thus, the dollar on average may depreciate only slowly, first against one currency and then against another. Stronger foreign economies would obviously be highly constructive for the world economy as a whole. But there is little the United States can do to encourage better policies abroad, other than to set a good example.

Fourth, as emphasized in a comment by Roger Brinner, the real return on physical capital may be significantly above the cost of borrowing from abroad. There is nothing unsustainable about borrowing at six percent and earning 12 percent on our physical capital.

These considerations explain why I dissent from the prevailing view at this conference that the real dollar exchange rate is excessively high and will inevitably fall—fall much more rapidly than the slow decline given by the interest parity condition. There is nothing inevitable about the policy changes that would entail such a result. If the United States retains an environment conducive to capital formation, then there is every reason to believe that the dollar will remain strong and perhaps strengthen further.
Additional comments

I have three very short additional comments. First, the macro model appropriate for analyzing inflation is very misleading under present circumstances. There were major changes in relative prices in the early 1980s, and neglecting them introduces major errors into the analysis. Second, I am annoyed by references to the present floating rate system as a "nonsystem." We would not refer to a system of deregulated air travel as a "nonsystem;" central planning is not the only way to organize commercial aviation, and it is not the only way to organize international finance.

Finally, the floating rate system is only about 15 years old. In the past, under both the gold standard and the Bretton Woods system, floating rates were regarded by governments and markets as a temporary phenomenon. In contrast, the present system is regarded as at least semi-permanent. This system is young; governments and markets are still learning how the system works. So also are economists.