We are in the midst of another wave of global economic and financial integration. This movement toward greater openness and the associated rise in capital mobility offers the prospect of substantial economic gains for the U.S. and the global economy. Stronger real and financial linkages across nations have the potential to significantly raise the prospects for long-run world growth. The ensuing development of the market sector in emerging market and developing economies offers probably the most powerful means available for raising income growth and living standards in a very large share of the world’s population.

These changes, and the complementary advances in technology, offer the prospect of more productive and stable real economies. The increase in the ties between national financial systems, the greater sophistication of financial markets and financial market instruments and the increase in capital flows across borders, allow risks to be shared more broadly and capital to flow to where the returns are highest, also contributing to stronger and more stable future economic growth.

This process of integration has, of course, a range of implications for policymakers. Many of these implications are positive, for the benefits of integration over time are powerful and compelling for all economies. In important ways, economic integration may have made the principal job of central banks easier, by contributing to productivity growth and reducing some sources of inflation pressure, at least during the transition when a large share of the working age population of the world is being brought into the market.

But the process of change in how economies and financial markets interact also complicates the task of central banks. Our understanding of the how these changes affect our capacity to forecast economic activity and inflation and our ability to assess how monetary policy affects the economy almost certainly lags the changes underway.

In my remarks today, I will talk about some of the implications of these challenges for the conduct of monetary policy. I will focus on two features of what is happening in the world economy and financial markets today that are among the most interesting and consequential of the many questions we face today in thinking about the changes in the world economy and the task of central banking. These are, first, the behavior of forward interest rates in financial markets, and, second, the pattern of external imbalances.

These features are interesting, in part, because they seem somewhat anomalous, or inconsistent with what the past has led us to expect. They seem likely to be related to each other and both are a feature of the changes underway in global financial integration. Understanding the forces behind these phenomena or anomalies is important to thinking through what they mean for policy.

When Alan Greenspan first used the term “conundrum” to describe the surprising behavior of forward interest rates, he was reacting to the decline in forward nominal rates over a period in which the Federal Open Market Committee was raising its federal funds target rate. This behavior of forward rates, the counterpart of which is the behavior of the bond yield curve, looked anomalous both in comparison to observations from past tightening cycles and with what seemed to be strong evidence about the fundamental soundness of the outlook for the real economy.

The source of the relatively low level of nominal rates is still a matter of considerable debate. Part of the explanation lies in the decline in expectations of future inflation and uncertainty about future inflation. Part of the explanation may also lie in greater confidence that the secular decline in the variability of economic growth observed over the past two decades in the United States is likely to continue. However, even with the information provided by the development of the market for inflation-indexed government securities, we have less ability than we would like to draw conclusions about what any nominal forward rate means for expectations about the level of future real rates, uncertainty about future real rates, and what those might imply about expectations about future economic activity. This uncertainty makes it harder to assess the appropriate path of monetary policy.
The other surprising feature of the current economic environment is the pattern of global imbalances, and the size and persistence of the U.S. current account deficit. As Alan Greenspan has explained, the greater dispersion in external imbalances can be seen as the inevitable result of fundamentally healthy changes in the world economy. As the world progresses toward increasingly integrated financial and goods markets, other things being equal, one might expect to see an increase in the number of countries with surpluses or deficits, and potentially larger surpluses and deficits, as flows of both financial assets and goods work to equalize desired saving and investment around the world.

If one were confident that observed imbalances simply reflected a more efficient allocation of the world’s stock of saving to its most productive uses, that relative prices adjust freely in response to changing fundamentals and that economies are flexible and agile in adapting to those changes, then we might also reasonably expect these imbalances to resolve themselves through smooth and gradual adjustments in relative prices and flows of goods and services.

These conditions do not fully exist today. We do not yet live in a world of perfect capital mobility, one in which savings move across borders to their most productive use without constraint in the form of capital controls or without distortions affecting the behavior of private actors. Recognizing this is important to understanding both why the U.S. imbalance has grown as large as it has and, perhaps, more importantly why it has been financed with such apparent ease despite obvious concerns about its sustainability. If the U.S. external deficit continues to run at a level close to 7 percent of GDP—and most forecasts assume it will for some time, then the net international investment position of the United States will deteriorate sharply, U.S. net obligations to the rest of the world will rise to a very substantial share of GDP, and a growing share of U.S. income will have to go to service those obligations. The anomaly is that these imbalances have persisted on a seemingly unsustainable path with relatively low interest rates and very little evidence of rising risk premia.

Economists have invested quite a bit of effort over the past two years in exploring alternative explanations for the coexistence of these phenomena, and their potential implications for policy. Much of the focus has been on looking at the forces behind the current pattern of global capital flows and how those forces might evolve over time.

The size of external imbalances, the capital flows associated with them, and the accompanying constellation of interest rates and exchange rates reflect a range of factors, from differences in actual and potential growth rates, and the degree of competition in financial and product markets and the presence or absence of capital controls, to differences in monetary and exchange rate arrangements, the degree of financial market development, and the net borrowing requirements of governments, and to a whole range of different factors that affect savings preferences and the perceived return on private investment. The relative importance of these factors is hard to assess, as is their likely persistence. And this complicates the task of understanding the implications for policy.

The challenge of explaining these anomalies is illustrated by considering some of the explanations now prevailing.

The decline of thrift in the United States is one common explanation. The sustained decline in net national savings in the United States is the necessary counterpart to the rise in the current account deficit. But this observation does not explain why that growth has not been accompanied by an increase in longer-term interest rates.

The robust productivity outlook for the United States relative to the rest of the world is consistent with an increase in the U.S. current account deficit, such as we experienced in the late 1990s. If this gap in potential growth were sustained, the United States would be able to sustain a larger external imbalance than we might have thought historically would be the case. But the present magnitude of the U.S. external imbalance seems difficult to reconcile with plausible estimates of future productivity and potential output growth.

The demographic shifts underway in the major economies seem to have contributed to an increase in demand for longer-dated fixed income assets to fund growing pension liabilities, and these shifts have been reinforced by actual and anticipated changes in the regulations that affect pension fund managers. These changes may have operated to push up the price and lower the yield on longer maturity bonds, but the effect of these changes seems likely to be small in comparison to the changes in the behavior of forward interest rates.

The rise in the current account surplus that is the counterpart to the U.S. deficit has focused much attention on the rise in measured savings relative to investment that has emerged in many economies. But the implications of this are ambiguous. If the rise in so-called excess savings principally reflected
concern about future economic opportunities and weak investment demand, then this might imply a
decline in future real interest rates. But the pessimism implied by this view is hard to reconcile with the
relatively robust pattern of investment growth, particularly in those countries with some of the larger
external surpluses. It is hard to reconcile with the fact that growth in aggregate demand globally has
been reasonably strong through this recent period of relatively low forward interest rates. And it seems
somewhat inconsistent with the rise in equity and other asset prices, the fall in credit risk premia, and
the relatively low levels of uncertainty about the future reflected in measures of expected future
volatility in many different types of financial instruments.

One feature of present conditions that is not captured by these explanations and that is likely to be
playing a significant role in contributing to the combination of these large imbalances and relatively low
forward interest rates is the pattern of exchange rate and monetary policy arrangements in the global
economy today.

Even with the broad shift globally to more flexible exchange rates, a substantial part of the world
economy now run monetary policy regimes targeted at limiting the variability in their exchange rate
against the dollar, or a basket in which the dollar plays a substantial role. Sustaining that objective in
the past several years has required a large accumulation of dollar assets. The scale of this activity has
been particularly dramatic in parts of Asia. The significant rise in the earnings of the energy exporters,
many of whom also run exchange rate regimes that seek to shadow the dollar, has also generated a
substantial rise in investments in U.S. assets. A large share of the capital flows to the United States
that have financed our current account imbalance come from these official sources.

These flows add to other sources of private demand for U.S. assets. At the margin, they put downward
pressure on U.S. interest rates and upward pressure on other asset prices. Through this effect, the
monetary policy regimes that prevail in parts of the world help explain at least part of the persistence
of these anomalies. Recognizing that we live in a world where major exchange rates do not move
freely against the dollar, means that the dollar is not as flexible as we tend to think. And understanding
that the effort to sustain these exchange rate regimes has required more expansionary monetary
policy in those countries than would otherwise have been the case helps identify a substantial source
of what market participants describe as very ample liquidity in world markets.

The size of this effect is difficult to estimate with confidence. The economies that are the source of
these flows are in aggregate a substantial part of the world economy, and the collective flows from
official sources are probably large enough to have some impact on U.S. interest rates. Research at the
Federal Reserve and outside suggests that the scale of foreign official accumulation of U.S. assets
has put downward pressure on U.S. interest rates, with estimates of the effect ranging from small to
quite significant.

What does this mean for policy? Here are several implications.

First, this pattern of exchange rate and monetary policy arrangements and the associated scale of
official intervention in markets complicate our ability to assess the underlying economic conditions in
our economies and to forecast the future path of output and inflation. If the effects of these policies are
large enough to alter or distort the relationship between asset prices and the underlying fundamentals
in our economies, and this seems likely to be the case, then we can take less comfort from traditional
relationships between those variables.

The fact that official purchases of financial assets are driven by different factors than those driving
private investors suggests that we would probably see a somewhat different combination of capital
flows, exchange rates and interest rates in the absence of official intervention. This makes the task of
assessing the probable trajectory of growth and inflation more complicated. It makes it harder to
assess the likely evolution in financial conditions and asset prices. And it makes it harder to assess the
effects of the present stance of monetary policy on aggregate demand and inflation.

To the extent that these forces act to raise asset prices, lower interest rates and reduce risk premia, it
is harder for the markets to assess how much of the very favorable conditions are likely to reflect
fundamentals and prove more durable. This can contribute to an increased willingness to raise
leverage in the investment community and to take on more exposure to risk.

For the same reason, this phenomenon can act to mask or offset the effects of high levels of present
and expected future government borrowing on interest rates, perhaps contributing to a false sense of
reassurance that we can continue to run large structural deficits without risk of crowding out private
investment and damaging future growth.
What might this mean for the conduct of monetary policy? To the extent that these forces act to put downward pressure on interest rates and upward pressure on other asset prices, they would contribute to more expansionary financial conditions than would otherwise be the case. And, if all else were equal, which of course is unlikely ever to be the case, monetary policy in the affected countries would have to adjust in response; policy would have to act to offset these effects in order to achieve the same impact on the future path of demand and inflation. To do otherwise would run the risk that monetary policy would be too accommodative, pulling resources from the future in a way that would alter the trajectory for the growth of the capital stock, perhaps amplifying the imbalances, and compromising the price stability.

Finally, these aspects of global monetary arrangements and financial conditions have important implications for how we communicate about monetary policy. They strengthen the case for why central banks should be clear about their objectives and credible in their commitment to price stability. They reinforce the case for preserving the flexibility to adjust policy in response to changing conditions. And they underscore the importance of being open about the greater level of uncertainty we face in understanding the forces at work on the trajectory of demand and inflation. Central banks, of course, need to be careful not to convey more certainty about what we know than we reasonably can know.

Let me conclude by observing that a constellation of factors has aligned to produce the current combination of low world interest rates, low risk premia and large global imbalances. Most of these factors are outside the control of U.S. monetary policy, and we do not fully understand their implications for our economy and for policy. The process of global economic integration makes it ever more important that we work to improve our understanding of how this complex of global monetary arrangements affects our objectives.

Thank you.