Good morning.

Let me first thank the organizers of this conference for inviting me to speak to you today. Over the next two days you will focus on the substantial financial imbalances that characterize the world economy today. The size and duration of these imbalances, perhaps the most visible of which is the U.S. current account deficit, present challenges—and risks—for the world economy. Understanding the forces behind the international capital flows and the associated gaps between saving and investment within countries that led to these imbalances is of crucial importance to economic policymakers as they struggle to consider the implications of the imbalances on future economic growth. You have brought together an excellent group of people to explore these issues.

You meet in the context of some remarkable developments in the world economy. I thought I would begin by touching on some that bear most directly on the subject of your conference.

Naturally, as a central banker, I'll begin by observing that over the past two decades, most of the world has experienced a substantial fall in inflation. During this period, the rate of inflation in the United States fell to levels broadly consistent with most definitions of price stability, and inflation expectations at longer horizons imply confidence that these gains will also prove durable. These gains were matched in many economies around the world, the result not just of the now widespread practice of having a central bank with instrument independence commit to an implicit or explicit goal of price stability, but also of course of the effects of global economic integration on competition and labor costs.

Productivity growth in the United States has continued at impressively strong levels, adding to confidence that the acceleration of the last decade will prove durable. It is not difficult to imagine a situation in which the driving forces behind U.S. productivity growth eventually manifest themselves in other large mature economies. So far, however, this positive productivity shock has not been more generalized, and this has some implications for the central topic of this conference.

Alongside the continuation of the U.S. expansion, global economic activity has strengthened, and the pattern of global growth has become somewhat more balanced. Private investment spending is growing at respectable rates in the United States and strengthening in much of the world economy. Although there will surely be variations over time, the process of economic reform and integration in China and India is likely to entail a sustained period of relatively high investment growth, as firms move to capture the higher returns available from adding capital to labor.

In addition to these important changes in relative productivity outcomes and more general gains in reducing inflation, we have seen a large increase in the mobility of global capital and a wider dispersion in gaps between saving and investment in national economies. The increase in the size of the U.S. current account deficit and the emergence of substantial surpluses in emerging Asia, the major oil exporters and Japan, reflect changes in saving and investment behaviors, changes driven by very different forces in different countries. So far, of course, these imbalances have been financed with relative ease, and it is hard to find evidence in risk premia in financial markets of concern about the sustainability of these trends.

One final point about the broader environment: These changes have taken place in the context of unusually low forward interest rates, a subject that has been the focus of considerable attention in U.S. markets in particular. Forward nominal interest rates in the United States at the five- to ten-year horizon have stayed at quite low levels over the past 18 months. Using the inflation expectations derived from the TIPS (Treasury Inflation-Protected Securities), along with measures of inflation risk premia, we can conclude with some confidence that a key factor holding down forward nominal rates is a significant reduction in expected future inflation and increased confidence in those expectations. Inflation and inflation risk are not the whole story though, as forward real rates in both the United States and many other countries have declined to unusually low levels.

How much of the reduction in real forward rates is attributable to a drop in expected real returns and how much is a reduction in the real risk premium is still an open question. The low level of long-term real rates seems likely to reflect in part a general rise in the supply of global saving relative to demand for investment, and some have suggested this phenomenon may reflect concern about prospects for future returns on investment. However, there is also evidence from other financial market indicators that the required compensation for bearing real risk has fallen, raising the possibility that the declines in real rates are due not to
pessimism (or at least not entirely), but instead to an increased appetite for, or a decreased perception of, real risk.

Against this backdrop of a favorable but so far uneven productivity shock, lower inflation expectations and risk premia, greater economic and financial integration, and divergent saving and investment patterns, what are the implications of the imbalances that are the subject of this conference?

It is important to note that the greater dispersion in external imbalances is the inevitable result of a fundamentally healthy change in the world economy. As the world progresses toward increasingly integrated financial and goods markets, other things being equal, we would expect to see an increase in the number of countries with surpluses or deficits, and larger surpluses and deficits, as flows of both assets and goods work to equalize desired saving and investment around the world.

If we were confident that the imbalances we observe simply reflected a more efficient allocation of the world’s stock of saving to its most productive uses, if relative prices adjusted freely in response to changing fundamentals, and if economies were flexible and agile in adapting to those changes, then we might also reasonably expect these imbalances to rise and fall through smooth and gradual adjustments in relative prices and flows of goods and services. Of course, this is not quite the world we live in today.

The fact that we’re discussing the issue of the sustainability at all reflects concern that the pattern of global capital flows we see today in unlikely to be consistent with the likely evolution of economic fundamentals over time. This suggests that it is worth focusing attention on the sustainability of the forces behind these capital flows rather than simply concluding from the favorable assessment of underlying risk and return in today’s financial prices that these imbalances can persist for a protracted period of time.

The size and durability of the imbalances that characterize the world economy today reflect a myriad of different forces: from differences in actual and potential growth rates, the degree of openness of financial and product markets, the type of exchange rate regime in place, the borrowing requirements of the sovereign, the degree of financial market development, the extent of the official safety nets, to differences in attitudes toward risk and expectations about the future. The interactions of these forces are complex and vary over time. And this limits our capacity to judge the sustainable level of imbalances.

On its face, the increase in the size of the U.S. current account deficit suggests that the United States has been the principal beneficiary of the increased availability of global savings and the greater apparent willingness of the world’s savers to invest outside their home countries. At the same time, however, it is not difficult to see that if the deficit continues to run at a level close to 7 percent of GDP—and most forecasts assume it will for some time—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. This fact alone suggests that something will have to give eventually, and this raises the interesting question of how these imbalances have persisted on a path that seems unsustainable with so little evidence of rising risk premia.

Part of the answer seems to lie in the fact that these capital inflows into the United States, however, are not solely the result of the decisions of private actors, but reflect official intervention by countries with exchange rate regimes tied to the dollar, including those in Asia and the major oil exporters.

Research at the Federal Reserve and outside suggests 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. If this is right, the apparent reduction in real rates is less likely to signal concern over expectations of future growth and future returns on investment, and is more likely to signal the special consequences of these exchange rate arrangements and their effects on private behavior, as well as the increase in international capital mobility.

What then can we say about the implications of the pattern of imbalances we see today?

The trajectory of the U.S. current account deficit has led most observers to conclude the U.S. external imbalance is unsustainably large and will have to come down over time. Beyond this general judgment about unsustainability, there is little consensus on how this adjustment process will unfold or on its implications for economic activity and financial markets. The plausible outcomes range from the gradual and benign to the more precipitous and damaging. The size of the imbalance and the inevitability of eventual adjustment, however, mean that the world will be living for a considerable period of time with some risk of large movements in relative prices, greater volatility in asset prices, and periods of slower growth in the United States and in the rest of the world.

That said, a number of observers have suggested that living with these imbalances for an extended period of time presents very little risk to the U.S. and world economy. These arguments are worth some attention.

One view is that the rise in the surplus saving of the rest of the world, the relative ease with which capital now moves across borders, and the increase in the relative attractiveness of claims on the United States together may suggest that the world can sustain larger imbalances, more easily, for a longer period of time than would have been possible in the absence of these conditions. This is true. But even if we could be confident that the world would be comfortable financing the United States on
there is also a view that the exchange rate arrangements that exist in the present context—the substantial share of the world

terms on which we are likely to finance the present imbalance.

If we are unable to begin to generate more confidence in the capacity of the U.S. political system to produce these improvements,

restore a reasonable cushion in its structural budget balance to help deal with future shocks.

scale, particularly given that doing so means that the net obligations of the United States to the rest of the world are likely to rise

more vulnerable than if those resources were being used for productive private investment. Large structural fiscal deficits limit the size

of the sustainable external imbalance for any country, even the United States, and they necessarily increase concern about the

terms on which we are likely to finance the present imbalance.

There is also a view that the exchange rate arrangements that exist in the present context—the substantial share of the world
economy that shadows the dollar—should increase our confidence that this pattern of imbalances could be financed without stress

for some time. But a prolonged continuation of the exchange rate arrangements that have given rise to the large increase in foreign

official investments in U.S. financial assets is unlikely to be consistent with the domestic requirements of those economies, and

for this reason many are already in the process of change. The impact of a reduction in the scale of official accumulation of dollar

assets could potentially be fully offset by increases in purchases by private investors. But even in the context of a continued high

degree of confidence in the relative return on claims on the United States, it is hard to know with confidence how the preferences

of private savers will respond to the gradual evolution in their nation’s exchange rate regimes that is now underway.

Some have drawn comfort from the adjustment process experienced by other economies with large external deficits. Industrial

countries that have gone through a process of current account rebalancing have not generally experienced particularly damaging

moves in interest rates or exchange rates. But the present circumstances seem sufficiently different from historical precedent that

history may not be a particularly useful guide. And even in these past cases, the adjustment process did entail a slowdown in GDP

growth, increasing unemployment, and a sharp fall in investment.

Finally, there is the belief that the nature of U.S. external assets and liabilities mitigate the potential problems ahead. U.S.

residents do in fact earn more on their assets than they pay on their liabilities, and U.S. firms operating abroad earn a higher rate

of return than do foreign firms operating in the United States. Also, the fact that U.S. gross assets are denominated in foreign

 currencies but U.S. liabilities are mainly denominated in dollars implies that even a modest rise in the value of other currencies

relative to the dollar can significantly reduce our net liability position by increasing the value of U.S. gross foreign assets relative to

foreign liabilities.

Nevertheless, going forward, the scope for positive net factor payments from abroad and sizable valuation effects is limited. The

U.S. trade deficit is now roughly the size of the current account deficit, and U.S. net interest earnings have fallen to quite low

levels. The continuing buildup in liabilities should soon push U.S. net investment income balances into deficit, with progressively

larger net transfers of income to the rest of the world. In that event, net income flows will begin to boost the nation’s current

account deficit instead of reducing it, reinforcing the deterioration in net liability position of the United States.

The arguments I have just described highlight factors that may improve the odds of a more protracted, gradual and benign

scenario, but they do not really alter the general conclusion that these imbalances are unsustainable and that they will need to

unwind at some point.

Time does not necessarily help. The longer these gaps continue to build, the greater the ultimate adjustment required, and the

greater the risks that accompany that process.

What does this mean for economic policy in the United States and the rest of the world? The conventional policy prescription

includes the encouragement of higher public savings in the United States, the implementation of structural reforms designed to

increase flexibility and raise potential growth rates in economies outside the United States, and movement toward increased

exchange rate flexibility. The principal rationale for each of these policies is independent of the external imperative. But the fact

that these policies would contribute to a benign external adjustment process strengthens the case for action on these fronts.

Improving the U.S. fiscal position is the most effective means we have available to reduce our vulnerability during this prolonged

period of adjustment. The United States needs to produce a substantial reduction in its structural deficit over the medium term

and begin to reduce the more dramatic longer term gap between resources and commitments. And the United States needs to

restore a reasonable cushion in its structural budget balance to help deal with future shocks.

If we are unable to begin to generate more confidence in the capacity of the U.S. political system to produce these improvements,

we would face a greater risk of future increases in risk premia. And even though substantial fiscal consolidation would not by itself

bring the external imbalance down to a more sustainable level, it would improve the prospect for a smoother adjustment to that

outcome.

The general risk inherent in these imbalances—the risk of more adverse growth outcomes and asset price volatility—reinforces the
importance of sustaining the strength and resilience of the U.S. financial system. Our financial system today is in substantially
stronger shape than it was even in the recent past, and the major institutions now appear to be managed so that they are less
vulnerable to the type and magnitude of shocks they’ve experienced in the past couple decades.

What is important of course is that they are as well positioned to deal with the full range of potential future risks. This requires
continued investments in risk management and controls to match the increasing complexity of these challenges, and it requires a
cushion of capital and liquidity large enough to capture the potential risk of losses in a less favorable macroeconomic environment.

The increase in the flexibility and resilience of the U.S. economy over the past two decades has a lot to do with the increased
openness of the U.S. economy. And sustaining this flexibility, which is so important to our capacity to adjust to shocks, requires
that we continue to support the process of openness and economic integration. We jeopardize future income gains if we are unable
to sustain support in the United States for what has been a relatively open trade policy. How effective we are in meeting this
political challenge is likely to depend significantly on how effective we are in improving educational opportunity and achievement
in the United States, and perhaps also in improving the design of the temporary assistance we provide those individuals who bear
the brunt of the adjustment costs that come with greater global economic integration.

These policies by the United States would help improve the prospects of a more benign adjustment process. But they would not be
sufficient to produce a more favorable adjustment path. A more favorable adjustment scenario would require policy changes in
each of the major economic areas.

For global growth to be sustained at a reasonably strong pace during this period of adjustment, the desirable increase in U.S.
savings, and the necessary slowing in U.S. domestic demand growth relative to growth of U.S. output, would have to be
complemented by stronger domestic demand growth outside the United States, absorbing a larger share of national savings.
Exchange rate regimes, where they are currently closely tied to the dollar, will have to become more flexible, allowing exchange
rates to adjust in response to changing fundamentals. Reforms to financial systems and to social safety nets over time would help
reduce the need for exceptionally high levels of domestic saving we see in many countries.

The global nature of these requirements does not imply that the United States can put the principal burden for adjustment on
others. If we focus adequate political capital on the factors within our control, we will have more credibility internationally in
encouraging policy changes outside the United States that might reduce our collective risks in the adjustment process ahead.

What does this mean for monetary policy?

Monetary policy itself cannot sensibly be directed at reducing imbalances, but the past and future evolution of global capital flows
will of course matter for monetary policy by virtue of their impact on the outlook for output and inflation. For example, the forces
that seem to be supporting an unusual level of capital flows into the United States may be materially dampening the level of
forward nominal and real interest rates, and other things being equal, this would tend to produce higher levels of demand growth
than would prevail in the absence of those factors. Thus, the factors that have contributed to this pattern of external imbalances
complicate the task of judging the appropriate stance of monetary policy in the United States today.

Perhaps it makes sense to conclude with the more general observation that changes in the size of global capital flows and the
accompanying imbalances increase the importance of sustaining the credibility of monetary policy, because they increase the costs
of a loss of credibility or a negative shock to credibility. We live with considerable uncertainty about the sustainability of the
pattern of global capital flows and the relatively low risk premia that prevail today. That uncertainty necessarily adds to the
normally substantial degree of uncertainty we face in making monetary policy judgments. And it reinforces the case for preserving
confidence in our commitment to keep underlying inflation low over time, and for retaining the capacity to respond with flexibility
to the challenges we face in this uncertain world.

Thank you.