

Ben S Bernanke: The global saving glut and the US current account deficit

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On most dimensions the U.S. economy appears to be performing well. Output growth has returned to healthy levels, the labor market is firming, and inflation appears to be well controlled. However, one aspect of U.S. economic performance still evokes concern among economists and policymakers: the nation's large and growing current account deficit. In the first three quarters of 2004, the U.S. external deficit stood at \$635 billion at an annual rate, or about 5-1/2 percent of the U.S. gross domestic product (GDP). Corresponding to that deficit, U.S. citizens, businesses, and governments on net had to raise \$635 billion on international capital markets.¹ The current account deficit has been on a steep upward trajectory in recent years, rising from a relatively modest \$120 billion (1.5 percent of GDP) in 1996 to \$414 billion (4.2 percent of GDP) in 2000 on its way to its current level. Most forecasters expect the nation's current account imbalance to decline slowly at best, implying a continued need for foreign credit and a concomitant decline in the U.S. net foreign asset position.

Why is the United States, with the world's largest economy, borrowing heavily on international capital markets - rather than lending, as would seem more natural? What implications do the U.S. current account deficit and our consequent reliance on foreign credit have for economic performance in the United States and in our trading partners? What policies, if any, should be used to address this situation? In my remarks today I will offer some tentative answers to these questions. My answers will be somewhat unconventional in that I will take issue with the common view that the recent deterioration in the U.S. current account *primarily* reflects economic policies and other economic developments within the United States itself. Although domestic developments have certainly played a role, I will argue that a satisfying explanation of the recent upward climb of the U.S. current account deficit requires a global perspective that more fully takes into account events outside the United States. To be more specific, I will argue that over the past decade a combination of diverse forces has created a significant increase in the global supply of saving - a global saving glut - which helps to explain both the increase in the U.S. current account deficit and the relatively low level of long-term real interest rates in the world today. The prospect of dramatic increases in the ratio of retirees to workers in a number of major industrial economies is one important reason for the high level of global saving. However, as I will discuss, a particularly interesting aspect of the global saving glut has been a remarkable reversal in the flows of credit to developing and emerging-market economies, a shift that has transformed those economies from borrowers on international capital markets to large net lenders.

To be clear, in locating the principal causes of the U.S. current account deficit outside the country's borders, I am not making a value judgment about the behavior of either U.S. or foreign residents or their governments. Rather, I believe that understanding the influence of global factors on the U.S. current account deficit is essential for understanding the effects of the deficit and for devising policies to address it. Of course, as always, the views I express today are not necessarily shared by my colleagues at the Federal Reserve.²

The U.S. Current Account Deficit: Two Perspectives

We will find it helpful to consider, as background for the analysis of the U.S. current account deficit, two alternative ways of thinking about the phenomenon - one that relates the deficit to the patterns of U.S. trade and a second that focuses on saving, investment, and international financial flows.

¹ As U.S. capital outflows in those three quarters totaled \$728 billion at an annual rate, gross financing needs exceeded \$1.3 trillion.

² I thank [David Bowman](#), [Joseph Gagnon](#), Linda Kole, and [Maria Perozek](#) of the Board staff for excellent assistance.

Although these two ways of viewing the current account derive from accounting identities and thus are ultimately two sides of the same coin, each provides a useful lens for examining the issue.

The first perspective on the current account focuses on patterns of international trade. You are probably aware that the United States has been experiencing a substantial trade imbalance in recent years, with U.S. imports of goods and services from abroad outstripping U.S. exports to other countries by a wide margin. According to preliminary data, in 2004 the United States imported \$1.76 trillion worth of goods and services while exporting goods and services valued at only \$1.15 trillion. Reflecting this imbalance in trade, current payments from U.S. residents to foreigners (consisting primarily of our spending on imports, but also including certain other types of payments, such as remittances, interest, and dividends) greatly exceed the analogous payments that U.S. residents receive from abroad. By definition, this excess of U.S. payments to foreigners over payments received in a given period equals the U.S. current account deficit, which, as I have already noted, was on track to equal \$635 billion in 2004 - close to the \$618 billion by which the value of U.S. imports exceeded that of exports.

When U.S. receipts from its sales of exports and other current payments are insufficient to cover the cost of U.S. imports and other payments to foreigners, U.S. households, firms, and governments on net must borrow the difference on international capital markets.³ Thus, essentially by definition, in each period U.S. net foreign borrowing equals the U.S. current account deficit, which in turn is closely linked to the imbalance in U.S. international trade.

That the nation's imports currently far exceed its exports is both widely understood and of concern to many Americans, particularly those whose livelihoods depend on the viability of exporting and import-competing industries. The extensive attention paid to the trade imbalance in the media and elsewhere has tempted some observers to ascribe the growing current account deficit to factors such as changes in the quality or composition of U.S. and foreign-made products, changes in trade policy, or unfair foreign competition. However, I believe - and I suspect that most economists would agree - that specific trade-related factors cannot explain either the magnitude of the U.S. current account imbalance or its recent sharp rise. Rather, the U.S. trade balance is the tail of the dog; for the most part, it has been passively determined by foreign and domestic incomes, asset prices, interest rates, and exchange rates, which are themselves the products of more fundamental driving forces. Instead, an alternative perspective on the current account appears likely to be more useful for explaining recent developments. This second perspective focuses on international financial flows and the basic fact that, within each country, saving and investment need not be equal in each period.

In the United States, as in all countries, economic growth requires investment in new capital goods and the upgrading and replacement of older capital. Examples of capital investment include the construction of factories and office buildings and firms' acquisition of new equipment, ranging from drill presses to computers to airplanes. Residential construction - the building of new homes and apartment buildings - is also counted as part of capital investment.⁴

All investment in new capital goods must be financed in some manner. In a closed economy without trade or international capital flows, the funding for investment would be provided entirely by the country's national saving. By definition, national saving is the sum of saving done by households (for example, through contributions to employer-sponsored 401k accounts) and saving done by businesses (in the form of retained earnings) less any budget deficit run by the government (which is a use rather than a source of saving)⁵.

³ For simplicity, I will use the term "net foreign borrowing" to refer to the financing of the current account deficit, though strictly speaking this financing involves the sale of foreign and domestic assets as well as the issuance of debt securities to foreigners. As illustrated by the data in footnote 1, U.S. gross foreign borrowing is much larger than net foreign borrowing, as gross borrowing must be sufficient to offset not only the deficit in current payments but also U.S. capital outflows.

⁴ This definition of capital investment ignores many less tangible forms of investment, such as research and development expenditures. It also ignores investment in human capital, such as educational expenses. Using a more inclusive definition of investment could well change our perceptions of U.S. saving and investment trends quite substantially. I will leave that topic for another day.

⁵ The Bureau of Economic Analysis treats government investment - in roads or schools, for instance - as part of national saving in the national income accounts. Thus, strictly speaking, national saving is reduced by the government deficit net of government investment, not by the entire government deficit. The difference between domestic investment and

As I say, in a closed economy investment would equal national saving in each period; but, in fact, virtually all economies today are open economies, and well-developed international capital markets allow savers to lend to those who wish to make capital investments in any country, not just their own. Because saving can cross international borders, a country's domestic investment in new capital and its domestic saving need not be equal in each period. If a country's saving exceeds its investment during a particular year, the difference represents excess saving that can be lent on international capital markets. By the same token, if a country's saving is less than the amount required to finance domestic investment, the country can close the gap by borrowing from abroad. In the United States, national saving is currently quite low and falls considerably short of U.S. capital investment. Of necessity, this shortfall is made up by net foreign borrowing - essentially, by making use of foreigners' saving to finance part of domestic investment. We saw earlier that the current account deficit equals the net amount that the United States borrows abroad in each period, and I have just shown that U.S. net foreign borrowing equals the excess of U.S. capital investment over U.S. national saving. It follows that the country's current account deficit equals the excess of its investment over its saving.

To summarize, I have described two equivalent ways of interpreting the current account deficit, one in terms of trade flows and related payments and one in terms of investment and national saving. In general, the perspective one takes depends on the particular analysis at hand.

As I have already suggested, most economists who have offered explanations of the high and rising level of the U.S. current account deficit and the country's foreign borrowing have emphasized investment-saving behavior rather than trade-related factors (and I will do the same today). Along these lines, one commonly hears that the U.S. current account deficit is the product of a precipitous decline in the U.S. national saving rate, which in recent years has fallen to a level that is far from adequate to fund domestic investment. For example, in 1985 U.S. gross national saving was 18 percent of GDP, and in 1995 it was 16 percent of GDP; in 2004, by contrast, U.S. national saving was less than 14 percent of GDP. Those who emphasize the role of low U.S. saving often go on to conclude that, for the most part, the U.S. current account deficit is "made in the U.S.A." and is independent (to a first approximation) of developments in other parts of the globe.

That inadequate U.S. national saving is the source of the current account deficit must be true at some level; indeed, the statement is almost a tautology. However, linking current-account developments to the decline in saving begs the question of *why* U.S. saving has declined. In particular, although the decline in U.S. saving may reflect changes in household behavior or economic policy in the United States, it may also be in some part a reaction to events external to the United States - a hypothesis that I will propose and defend momentarily.

One popular argument for the "made in the U.S.A." explanation of declining national saving and the rising current account deficit focuses on the burgeoning U.S. federal budget deficit, which in 2004 drained more than \$400 billion from the national saving pool. I will discuss the link between the budget deficit and the current account deficit in more detail later. Here I simply note that the so-called twin-deficits hypothesis, that government budget deficits cause current account deficits, does not account for the fact that the U.S. external deficit expanded by about \$300 billion between 1996 and 2000, a period during which the federal budget was in surplus and projected to remain so. Nor, for that matter, does the twin-deficits hypothesis shed any light on why a number of major countries, including Germany and Japan, continue to run large current account *surpluses* despite government budget deficits that are similar in size (as a share of GDP) to that of the United States. It seems unlikely, therefore, that changes in the U.S. government budget position can entirely explain the behavior of the U.S. current account over the past decade.

The Changing Pattern of International Capital Flows and the Global Saving Glut

What then accounts for the rapid increase in the U.S. current account deficit? My own preferred explanation focuses on what I see as the emergence of a global saving glut in the past eight to ten years. This saving glut is the result of a number of developments. As I will discuss in more detail later, one well-understood source of the saving glut is the strong saving motive of rich countries with aging populations, which must make provision for an impending sharp increase in the number of retirees relative to the number of workers. With slowly growing or declining workforces, as well as high capital-labor ratios, many advanced economies outside the United States also face an apparent dearth of

national saving is not affected by this qualification, however, as government investment and the implied adjustment to national saving cancel each other out.

domestic investment opportunities. As a consequence of high desired saving and the low prospective returns to domestic investment, the mature industrial economies as a group seek to run current account surpluses and thus to lend abroad.⁶

**Table 1. Global Current Account Balances,
1996 and 2003 (Billions of U.S. dollars)**

Countries	1996	2003
Industrial	46.2	-342.3
United States	-120.2	-530.7
Japan	65.4	138.2
Euro Area	88.5	24.9
France	20.8	4.5
Germany	-13.4	55.1
Italy	39.6	-20.7
Spain	0.4	-23.6
Other	12.5	25.3
Australia	-15.8	-30.4
Canada	3.4	17.1
Switzerland	21.3	42.2
United Kingdom	-10.9	-30.5
Developing	-87.5	205
Asia	-40.8	148.3
China	7.2	45.9
Hong Kong	-2.6	17
Korea	-23.1	11.9
Taiwan	10.9	29.3
Thailand	-14.4	8
Latin America	-39.1	3.8
Argentina	-6.8	7.4
Brazil	-23.2	4
Mexico	-2.5	-8.7
Middle East and Africa	5.9	47.8
E. Europe and the former Soviet Union	-13.5	5.1
Statistical discrepancy	41.3	137.2

⁶ By "high desired saving" I mean a supply schedule for saving that is shifted far to the right. Actual or realized saving depends on the equilibrium values of the real interest rate and other economic variables.

Although strong saving motives on the part of many industrial economies contribute to the global saving glut, the saving behavior of these countries does not explain much of the *increase* in desired global saving in the past decade. Indeed, in a number of these countries - Japan is one example - household saving has declined recently. As we will see, a possibly more important source of the rise in the global supply of saving is the recent metamorphosis of the developing world from a net user to a net supplier of funds to international capital markets.

[Table 1](#) provides a basis for a discussion of recent changes in global saving and financial flows by showing current account balances for different countries and regions, in billions of U.S. dollars, for the years 1996 (just before the U.S. current account deficit began to balloon) and 2003 (the most recent year for which complete data are available). I should note that these current account balances of necessity reflect realized patterns of investment and saving rather than changes in the rates of investment and saving desired from an *ex ante* perspective. Nevertheless, changes in the pattern of current account balances together with knowledge of changes in real interest rates should provide useful clues about shifts in the global supply of and demand for saving.

The table confirms the sharp increase in the U.S. current account deficit, about \$410 billion between 1996 and 2003. (Data from the first three quarters of 2004 imply that the current account deficit rose last year by an additional \$140 billion at an annual rate.) In principle, the current account positions of the world's nations should sum to zero (although, in practice, data collection problems lead to a large statistical discrepancy, shown in the last row of table 1). The \$410 billion increase in the U.S. current account deficit between 1996 and 2003 must therefore have been matched by a shift toward surplus of equal magnitude in other countries. Which countries experienced this change?

As we can infer from table 1, most of the swing toward surplus did not occur in the other industrial countries as a whole (although some individual industrial countries did experience large moves toward surplus, as we will see). The collective current account of the industrial countries declined more than \$388 billion between 1996 and 2003, implying that, of the \$410 billion increase in the U.S. current account deficit, only about \$22 billion was offset by increased surpluses in other industrial countries. As table 1 shows, the bulk of the increase in the U.S. current account deficit was balanced by changes in the current account positions of developing countries, which moved from a collective deficit of \$88 billion to a surplus of \$205 billion - a net change of \$293 billion - between 1996 and 2003.⁷ The available data suggest that the current accounts of developing and emerging-market economies swung a further \$60 billion into surplus in 2004.

This remarkable change in the current account balances of developing countries raises at least three questions. First, what events or factors induced this change? Second, what causal relationship (if any) exists between this change and current-account developments in the United States and in other industrial countries? Third, to the extent that the movement toward surplus in developing-country current accounts has had a differential impact on the United States relative to other industrial countries, what accounts for the difference?

In my view, a key reason for the change in the current account positions of developing countries is the series of financial crises those countries experienced in the past decade or so. In the mid-1990s, most developing countries were net importers of capital; as table 1 shows, in 1996 emerging Asia and Latin America borrowed about \$80 billion on net on world capital markets. These capital inflows were not always productively used. In some cases, for example, developing-country governments borrowed to avoid necessary fiscal consolidation; in other cases, opaque and poorly governed banking systems failed to allocate those funds to the projects promising the highest returns. Loss of lender confidence, together with other factors such as overvalued fixed exchange rates and debt that was both short-term and denominated in foreign currencies, ultimately culminated in painful financial crises, including those in Mexico in 1994, in a number of East Asian countries in 1997-98, in Russia in 1998, in Brazil in 1999, and in Argentina in 2002. The effects of these crises included rapid capital outflows, currency depreciation, sharp declines in domestic asset prices, weakened banking systems, and recession.

⁷ The statistical discrepancy also increased substantially, by \$96 billion on net. As asset accumulation in developing countries may be less completely measured than in industrial countries, a significant part of the change in the discrepancy may represent an additional movement toward surplus in developing-country current accounts.

In response to these crises, emerging-market nations either chose or were forced into new strategies for managing international capital flows. In general, these strategies involved shifting from being net importers of financial capital to being net exporters, in some cases very large net exporters. For example, in response to instability of capital flows and the exchange rate, some East Asian countries, such as Korea and Thailand, began to build up large quantities of foreign-exchange reserves and continued to do so even after the constraints imposed by the halt to capital inflows from global financial markets were relaxed. Increases in foreign-exchange reserves necessarily involve a shift toward surplus in the country's current account, increases in gross capital inflows, reductions in gross private capital outflows, or some combination of these elements. As table 1 shows, current account surpluses have been an important source of reserve accumulation in East Asia.

Countries in the region that had escaped the worst effects of the crisis but remained concerned about future crises, notably China, also built up reserves. These "war chests" of foreign reserves have been used as a buffer against potential capital outflows. Additionally, reserves were accumulated in the context of foreign exchange interventions intended to promote export-led growth by preventing exchange-rate appreciation. Countries typically pursue export-led growth because domestic demand is thought to be insufficient to employ fully domestic resources. Following the 1997-98 financial crisis, many of the East Asian countries seeking to stimulate their exports had high domestic rates of saving and, relative to historical norms, depressed levels of domestic capital investment - also consistent, of course, with strengthened current accounts.

In practice, these countries increased reserves through the expedient of issuing debt to their citizens, thereby mobilizing domestic saving, and then using the proceeds to buy U.S. Treasury securities and other assets. Effectively, governments have acted as financial intermediaries, channeling domestic saving away from local uses and into international capital markets. A related strategy has focused on reducing the burden of external debt by attempting to pay down those obligations, with the funds coming from a combination of reduced fiscal deficits and increased domestic debt issuance. Of necessity, this strategy also pushed emerging-market economies toward current account surpluses. Again, the shifts in current accounts in East Asia and Latin America are evident in the data for the regions and for individual countries shown in table 1.

Another factor that has contributed to the swing toward current-account surplus among the non-industrialized nations in the past few years is the sharp rise in oil prices. The current account surpluses of oil exporters, notably in the Middle East but also in countries such as Russia, Nigeria, and Venezuela, have risen as oil revenues have surged. For example, as table 1 shows, the collective current account surplus of the Middle East and Africa rose more than \$40 billion between 1996 and 2003; it continued to swell in 2004 as oil prices increased yet further. In short, events since the mid-1990s have led to a large change in the collective current account position of the developing world, implying that many developing and emerging-market countries are now large net lenders rather than net borrowers on international financial markets.

Of course, developing countries as a group can increase their current account surpluses only if the industrial countries reduce their current accounts accordingly. How did this occur? Little evidence supports the view that the motivation to save has declined substantially in the industrial countries in recent years; indeed, as I have noted already, demographic factors should lead the industrial countries to try to save more, not less. Instead, the requisite shift in the collective external position of the industrial countries was facilitated by adjustments in asset prices and exchange rates, although the pattern of asset-price changes was somewhat different before and after 2000.

From about 1996 to early 2000, equity prices played a key equilibrating role in international financial markets. The development and adoption of new technologies and rising productivity in the United States - together with the country's long-standing advantages such as low political risk, strong property rights, and a good regulatory environment - made the U.S. economy exceptionally attractive to international investors during that period. Consequently, capital flowed rapidly into the United States, helping to fuel large appreciations in stock prices and in the value of the dollar. Stock indexes rose in other industrial countries as well, although stock-market capitalization per capita is significantly lower in those countries than in the United States.

The current account positions of the industrial countries adjusted endogenously to these changes in financial market conditions. I will focus here on the case of the United States, which bore the bulk of the adjustment. From the trade perspective, higher stock-market wealth increased the willingness of U.S. consumers to spend on goods and services, including large quantities of imports, while the strong dollar made U.S. imports cheap (in terms of dollars) and exports expensive (in terms of foreign

currencies), creating a rising trade imbalance. From the saving-investment perspective, the U.S. current account deficit rose as capital investment increased (spurred by perceived profit opportunities) at the same time that the rapid increase in household wealth and expectations of future income gains reduced U.S. residents' perceived need to save. Thus the rapid increase in the U.S. current account deficit between 1996 and 2000 was fueled to a significant extent both by increased global saving and the greater interest on the part of foreigners in investing in the United States.

After the stock-market decline that began in March 2000, new capital investment and thus the demand for financing waned around the world. Yet desired global saving remained strong. The textbook analysis suggests that, with desired saving outstripping desired investment, the real rate of interest should fall to equilibrate the market for global saving. Indeed, real interest rates have been relatively low in recent years, not only in the United States but also abroad. From a narrow U.S. perspective, these low long-term rates are puzzling; from a global perspective, they may be less so.⁸

The weakening of new capital investment after the drop in equity prices did not much change the net effect of the global saving glut on the U.S. current account. The transmission mechanism changed, however, as low real interest rates rather than high stock prices became a principal cause of lower U.S. saving. In particular, during the past few years, the key asset-price effects of the global saving glut appear to have occurred in the market for residential investment, as low mortgage rates have supported record levels of home construction and strong gains in housing prices. Indeed, increases in home values, together with a stock-market recovery that began in 2003, have recently returned the wealth-to-income ratio of U.S. households to 5.4, not far from its peak value of 6.2 in 1999 and above its long-run (1960-2003) average of 4.8. The expansion of U.S. housing wealth, much of it easily accessible to households through cash-out refinancing and home equity lines of credit, has kept the U.S. national saving rate low - and indeed, together with the significant worsening of the federal budget outlook, helped to drive it lower. As U.S. business investment has recently begun a cyclical recovery while residential investment has remained strong, the domestic saving shortfall has continued to widen, implying a rise in the current account deficit and increasing dependence of the United States on capital inflows.⁹

According to the story I have sketched thus far, events outside U.S. borders - such as the financial crises that induced emerging-market countries to switch from being international borrowers to international lenders - have played an important role in the evolution of the U.S. current account deficit, with transmission occurring primarily through endogenous changes in equity values, house prices, real interest rates, and the exchange value of the dollar. One might ask why the current-account effects of the increase in desired global saving were felt disproportionately in the United States relative to other industrial countries. The attractiveness of the United States as an investment destination during the technology boom of the 1990s and the depth and sophistication of the country's financial markets (which, among other things, have allowed households easy access to housing wealth) have certainly been important. Another factor is the special international status of the U.S. dollar. Because the dollar is the leading international reserve currency, and because some emerging-market countries use the dollar as a reference point when managing the values of their own currencies, the saving flowing out of the developing world has been directed relatively more into dollar-denominated assets, such as U.S. Treasury securities. The effects of the saving outflow may thus have been felt disproportionately on U.S. interest rates and the dollar. For example, the dollar probably strengthened more in the latter 1990s than it would have if it had not been the principal reserve currency, enhancing the effect on the U.S. current account.

Most interesting, however, is that the experience of the United States in recent years is not so nearly unique among industrial countries as one might think initially. As shown in table 1, a number of key industrial countries other than the United States have seen their current accounts move substantially toward deficit since 1996, including France, Italy, Spain, Australia, and the United Kingdom. The principal exceptions to this trend among the major industrial countries are Germany and Japan, both of which saw substantial increases in their current account balances between 1996 and 2003 (and significant further increases in 2004). A key difference between the two groups of countries is that the

⁸ In pointing out the possible effects of strong global saving on real interest rates, I do not mean to rule out other factors. For example, a lowering of risk premiums resulting from increased macroeconomic and monetary stability has likely played some role.

⁹ Greenspan (2005) notes a strong correlation between U.S. mortgage debt and the U.S. current account deficit.

countries whose current accounts have moved toward deficit have generally experienced substantial housing appreciation and increases in household wealth, while Germany and Japan - whose economies have been growing slowly despite very low interest rates - have not. For example, wealth-to-income ratios have risen since 1996 by 14 percent in France, 12 percent in Italy, and 27 percent in the United Kingdom; each of these countries has seen their current account move toward deficit, as already noted. By contrast, wealth-to-income ratios in Germany and Japan have remained flat.¹⁰ The evident link between rising household wealth and a tendency for the current account to shift toward deficit is consistent with the mechanism that I have described today.

Economic and Policy Implications

I have presented today a somewhat unconventional explanation of the high and rising U.S. current account deficit. That explanation holds that one of the factors driving recent developments in the U.S. current account has been the very substantial shift in the current accounts of developing and emerging-market nations, a shift that has transformed these countries from net borrowers on international capital markets to large net lenders. This shift by developing nations, together with the high saving propensities of Germany, Japan, and some other major industrial nations, has resulted in a global saving glut. This increased supply of saving boosted U.S. equity values during the period of the stock market boom and helped to increase U.S. home values during the more recent period, as a consequence lowering U.S. national saving and contributing to the nation's rising current account deficit.

From a global perspective, are these developments economically beneficial or harmful? Certainly they have had some benefits. Most obviously, the developing and emerging-market countries that brought their current accounts into surplus did so to reduce their foreign debts, stabilize their currencies, and reduce the risk of financial crisis. Most countries have been largely successful in meeting each of these objectives. Thus, the shift of these economies from borrower to lender status has provided at least a short-term palliative for some of the problems they faced in the 1990s.

In the longer term, however, the current pattern of international capital flows - should it persist - could prove counterproductive. Most important, for the developing world to be lending large sums on net to the mature industrial economies is quite undesirable as a long-run proposition. Relative to their counterparts in the developing world, workers in industrial countries have large quantities of high-quality capital with which to work. Moreover, as I have already noted, the populations of most of these countries are both growing slowly and aging rapidly, implying that ratios of retirees to workers will rise sharply in coming decades. For example, in the United States, for every 100 people between the ages of 20 and 64, there are currently about 21 people aged 65 or older. According to United Nations projections, by 2030 the population of the United States will include about 34 people aged 65 or over for each 100 people in the 20-64 age range; for the Euro area and Japan, the analogous numbers in 2030 will be 46 and 57, respectively. Over the remainder of the century, the populations of other major industrial countries will age much more quickly than that of the United States. In 2050, for example, the number of retirees for each 100 working-age people in the United States should be about the same as in 2030, about 34, but the number of retirees per 100 working-age people is projected to increase to about 60 in the Euro area and about 78 in Japan.

We see that many of the major industrial countries - particularly Japan and some countries in Western Europe - have both strong reasons to save (to help support future retirees) and increasingly limited investment opportunities at home (because workforces are shrinking and capital-labor ratios are already high). In contrast, most developing countries have younger and more-rapidly growing workforces, as well as relatively low ratios of capital to labor, conditions that imply that the returns to capital in those countries may potentially be quite high.¹¹ Basic economic logic thus suggests that, in the longer term, the industrial countries as a group should be running current account surpluses and lending on net to the developing world, not the other way around. If financial capital were to flow in this "natural" direction, savers in the industrial countries would potentially earn higher returns and enjoy increased diversification, and borrowers in the developing world would have the funds to make the

¹⁰ These data are from Annex Table 58, OECD [Economic Outlook](#), vol. 76, 2004, p. 226. The latest year for which data are available is 2003 for Germany and the United Kingdom, 2002 for France, Italy, and Japan.

¹¹ China is an important exception to the generalization that developing countries have young populations. The country's fertility rate has declined since the 1970s, and its elderly dependency ratio is expected to exceed that of the United States by midcentury.

capital investments needed to promote growth and higher living standards. Of course, to ensure that capital flows to developing countries yield these benefits, the developing countries would need to make further progress toward improving conditions for investment, as I will discuss further in a bit.

A second issue concerns the uses of international credit in the United States and other industrial countries with external deficits. Because investment by businesses in equipment and structures has been relatively low in recent years (for cyclical and other reasons) and because the tax and financial systems in the United States and many other countries are designed to promote homeownership, much of the recent capital inflow into the developed world has shown up in higher rates of home construction and in higher home prices. Higher home prices in turn have encouraged households to increase their consumption. Of course, increased rates of homeownership and household consumption are both good things. However, in the long run, productivity gains are more likely to be driven by nonresidential investment, such as business purchases of new machines. The greater the extent to which capital inflows act to augment residential construction and especially current consumption spending, the greater the future economic burden of repaying the foreign debt is likely to be.

A third concern with the pattern of capital flows arises from the indirect effects of those flows on the sectoral composition of the economies that receive them. In the United States, for example, the growth in export-oriented sectors such as manufacturing has been restrained by the U.S. trade imbalance (although the recent decline in the dollar has alleviated that pressure somewhat), while sectors producing nontraded goods and services, such as home construction, have grown rapidly. To repay foreign creditors, as it must someday, the United States will need large and healthy export industries. The relative shrinkage in those industries in the presence of current account deficits - a shrinkage that may well have to be reversed in the future - imposes real costs of adjustment on firms and workers in those industries.

Finally, the large current account deficit of the United States, in particular, requires substantial flows of foreign financing. As I have discussed today, the underlying sources of the U.S. current account deficit appear to be medium-term or even long-term in nature, suggesting that the situation will eventually begin to improve, although a return to approximate balance may take some time. Fundamentally, I see no reason why the whole process should not proceed smoothly. However, the risk of a disorderly adjustment in financial markets always exists, and the appropriately conservative approach for policymakers is to be on guard for any such developments.

What policy options exist to deal with the U.S. current account deficit? I have downplayed the role of the U.S. federal budget deficit today, and I disagree with the view, sometimes heard, that balancing the federal budget *by itself* would largely defuse the current account issue. In particular, to the extent that a reduction in the federal budget resulted in lower interest rates, the principal effects might be increased consumption and investment spending at home rather than a lower current account deficit. Indeed, a recent study suggests that a one-dollar reduction in the federal budget deficit would cause the current account deficit to decline less than 20 cents (Erceg, Guerrieri, and Gust, 2005). These results imply that even if we could balance the federal budget tomorrow, the medium-term effect would likely be to reduce the current account deficit by less than one percentage point of GDP.

Although I do not believe that plausible near-term changes in the federal budget would eliminate the current account deficit, I should stress that reducing the federal budget deficit is still a good idea. Although the effects on the current account of reining in the budget deficit would likely be relatively modest, at least the direction is right. Moreover, there are other good reasons to bring down the federal budget deficit, including the reduction of the debt obligations that will have to be serviced by taxpayers in the future. Similar observations apply to policy recommendations to increase household saving in the United States, for example by creating tax-favored saving vehicles. Although the effect of saving-friendly policies on the U.S. current account deficit might not be dramatic, again the direction would be right. Moreover, increasing U.S. national saving from its current low level would support productivity and wealth creation and help our society make better provision for the future.

However, as I have argued today, some of the key reasons for the large U.S. current account deficit are external to the United States, implying that purely inward-looking policies are unlikely to resolve this issue. Thus a more direct approach is to help and encourage developing countries to re-enter international capital markets in their more natural role as borrowers, rather than as lenders. For example, developing countries could improve their investment climates by continuing to increase macroeconomic stability, strengthen property rights, reduce corruption, and remove barriers to the free flow of financial capital. Providing assistance to developing countries in strengthening their financial

institutions - for example, by improving bank regulation and supervision and by increasing financial transparency - could lessen the risk of financial crises and thus increase both the willingness of those countries to accept capital inflows and the willingness of foreigners to invest there. Financial liberalization is a particularly attractive option, as it would help both to permit capital inflows to find the highest-return uses and, by easing borrowing constraints, to spur domestic consumption. Other changes will occur naturally over time. For example, the pace at which emerging-market countries are accumulating international reserves should slow as they increasingly perceive their reserves to be adequate and as they move toward more flexible exchange rates. The factors underlying the U.S. current account deficit are likely to unwind only gradually, however. Thus, we probably have little choice except to be patient as we work to create the conditions in which a greater share of global saving can be redirected away from the United States and toward the rest of the world - particularly the developing nations.