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CRS Report for Congress

Is the U.S. Trade Deficit Caused by a Global Saving Glut?

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Is the U.S. Trade Deficit Caused by a Global Saving Glut?

Summary

The U.S. trade deficit is equal to net foreign capital inflows. Because U.S. investment rates exceed U.S. saving rates, the gap must be financed by foreign borrowing. Net capital inflows have grown over recent years to a record 6.6% of gross domestic product (GDP) in 2006. Economists have long argued that the low U.S. saving rate, which is much lower than most foreign countries, is the underlying cause of the trade deficit and that policies aimed at reducing the trade deficit should focus on boosting national saving. The most straightforward policy would be to reduce the budget deficit, which directly increases national saving.

In an often-cited speech in early 2005, Ben Bernanke, now the chairman of the Federal Reserve, argued that the underlying cause of the trade deficit was not insufficient domestic saving, but rather a "global saving glut." He argued that there was too much saving worldwide and not enough investment demand, and that the United States was the natural destination for this excess saving. As a result of the global saving glut, the trade deficit increased, interest rates remained low, demand for capital and residential investment rose, and the incentive to save decreased in the United States. He argued that because the trade deficit was not "made in the U.S.A.," policy steps to reduce the budget deficit or raise private saving were unlikely to significantly reduce the trade deficit until the global saving glut ended.

The conventional view and the global saving glut view are not necessarily mutually exclusive. To an extent, the difference between the two is tautological — the conventional view stresses that U.S. saving is too low relative to foreign saving, and the global saving glut view stresses that foreign saving is too high relative to U.S. saving. It is important to acknowledge foreign causes for international capital movements, but in doing so, changes in domestic conditions should not be neglected. Although neither view leads to any hard conclusions about whether the trade deficit is good or bad, the global saving glut implies that reducing it is largely out of American hands.

Contrary to the global saving glut hypothesis, data show that world saving is close to its lowest level in decades. However, low interest rates (although not unusually low by historical standards) suggest that worldwide investment demand is probably low as well. Data also show that the rise in saving in the developing world (notably among oil producers and East Asian countries) over the past few years has gone hand-in-hand with the significant accumulation of official foreign exchange reserves. At the same time, there has been a decrease in government saving in the United States since the 1990s. In recent years, a large fraction of U.S. net capital inflows have been the result of foreign reserve accumulation by other countries rather than coming from private sources, which suggests that global imbalances are not primarily the result of decisions by private investors and that (because of the fall in U.S. government saving) the trade deficit to a great extent may indeed have been "made in the U.S.A."

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The author gratefully acknowledges research assistance provided by Justin Murray.

Is the U.S. Trade Deficit Caused by a Global Saving Glut?

Introduction

Members of Congress from both parties have expressed concern about the size of the U.S. current account deficit, popularly known as the trade deficit.[1] The current account deficit rose from 1.3% of gross domestic product (GDP) in 1997 to a record-high 6.6% of GDP in 2006. By definition, the current account deficit equals the foreign capital flowing into the country on net. In other words, American purchases of imports can exceed foreign purchases of U.S. exports only if the United States borrows from abroad. Congress is concerned that a trade deficit of this size may not be sustainable and could disrupt the smooth functioning of the U.S. economy.

Conventional economic analysis suggests that the cause of the current account deficit is insufficient national saving.[2] Because the U.S. saving rate is too low to finance national demand for physical capital investment, the United States must borrow from abroad to bridge the gap. The conventional policy prescription for reducing the current account deficit has been to boost the national saving rate by reducing the budget deficit and encouraging higher rates of private saving.

In March 2005, Ben Bernanke — then a Governor of the Federal Reserve (Fed) system and now Fed Chairman — made an often-cited speech arguing that the conventional view was wrong. Instead, he "locat(ed) the principal causes of the U.S. current account deficit outside the country's borders," in the "global saving glut."[3] The global saving glut view implies that conventional policy prescriptions may have little success in reducing the current account deficit.

Whether the source of the growing trade deficit is domestic or international, it could nevertheless be a cause for concern. The counterpart to a larger U.S. trade deficit is larger trade surpluses among certain trading partners. In the April 2007

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[1] Technically, the current account deficit is the sum of the trade deficit, net investment income, and net unilateral transfers. However, net investment income and net unilateral transfers are typically small compared with the trade deficit, so the current account deficit and trade deficit are similar in size. For practical purposes, the terms can be used interchangeably.

[2] For more information, see CRS Report RL31032, *The U.S. Trade Deficit: Causes, Consequences, and Cures*, by Craig Elwell.

[3] Ben Bernanke, "The Global Saving Glut and the U.S. Current Account Deficit," the Sandridge Lecture, Virginia Association of Economics, March 10, 2005, available on the Federal Reserve Board of Governors website. These are Bernanke's personal views, and not the official views of the Federal Reserve or the Administration.

World Economic Outlook, the International Monetary Fund (IMF) notes that "[p]articular concerns (for the outlook) include ... the low probability but high cost risk of a disorderly unwinding of large global imbalances."[4]

This report compares and analyzes the conventional view with the global saving glut view, and discusses the implications of each for the U.S. economy.

The Conventional View

The conventional view among economists attributes the cause of the U.S. current account deficit to the country's low national saving rate. As seen in **Table 1**, the United States has a lower national saving rate than any of the regional groupings in the world. The United States' saving rate is less than half the rate of some regions and less than one-third the rate of China. Moreover, the United States has a negative public saving rate that reduces the overall national saving rate.[5] The federal budget deficit peaked at 3.5% of GDP in 2004, and equaled 1.9% of GDP in 2006.

Table 1. World Saving, Investment, and Current Account Balance as a Percentage of GDP, 2006

	Saving	Investment	Current Account Balance
United States	13.7	20.0	-6.5
Japan	28.0	24.1	3.9
Euro Area	21.3	21.3	-0.3
China	58.6	50.2	8.3
Other East Asia	29.0	23.4	5.7
Other Emerging Markets	21.0	22.5	-1.5
Oil Producers	33.2	21.4	11.8

Source: CRS calculations based on data from IMF, *World Economic Outlook*, April 2007; IMF, World Economic Outlook database.

Although U.S. investment rates are lower than the rates of other regions, the disparity is smaller than for saving rates. As seen in **Table 1**, the United States was the only economy whose investment rate significantly exceeded its national saving rate in 2006; as a result, large foreign capital inflows (which come to the country in

[4] International Monetary Fund, *World Economic Outlook*, April 2007, p. 1.

[5] National saving consists of household saving, business saving, and public saving. Government budget deficits reduce public saving.

the form of a current account deficit) are needed to bridge the gap. Although other countries have a current account deficit, none of the regions in **Table 1** has an aggregate current account deficit except the United States.

Economic theory predicts that capital will flow to the country where it can earn the highest real rate of return. Although some economists are concerned by the scale of U.S. borrowing, most believe that international capital flows are generally mutually beneficial: they allow the borrowing country access to more capital than domestic saving would allow, and they allow the lending country to earn a higher rate of return than could be earned at home. If rates of return (adjusted for risk)[6] were higher in the United States than abroad, then capital would flow into the United States and a current account deficit would result. Rates of return might be higher in the United States than abroad for several reasons.

First, the United States has enjoyed an increase in productivity growth since the mid-1990s that has not been experienced widely abroad. As a result, U.S. economic growth has tended to consistently outpace growth in most other industrial countries in the past 10 years. At least in the short run, this productivity boom might be expected to raise U.S. rates of return above foreign rates.

Second, interest rates are determined by the intersection of the supply of national saving and the demand for investment spending. Because saving rates are so much lower in the United States than abroad, one would expect higher interest rates in the United States.

Third, demand for U.S. investment spending is being crowded out by budget deficits that are competing for the same pool of private saving, which increases interest rates.[7] Because the budget deficit pushes up interest rates (which attract foreign capital inflows), the budget deficit and trade deficit are often referred to as "twin deficits."[8]

Fourth, economic theory suggests that additional investment is subject to diminishing returns. For example, adding a second machine at a factory would be expected to yield less additional output than the first machine for a given labor force. Many countries have higher investment rates than the United States; therefore, rates of return may be lower abroad because of diminishing returns. (This assumption would be less applicable to developing countries because their capital stocks are so much smaller than those of industrial countries.) For example, despite persistently low economic growth and low rates of return during the past decade, Japan's

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[6] Although some countries (particularly developing countries) offer higher rates of return than the United States, they may still not attract significant international capital flows because their investment opportunities are too risky to appeal to investors. The United States, on the other hand, has often been viewed as a "safe haven" for investors and may be able to attract capital with lower rates of return than other countries.

[7] See CRS Report RL31775, *Do Budget Deficits Push Up Interest Rates and Is This The Relevant Question?*, by Marc Labonte.

[8] See CRS Report RS21409, *The Budget Deficit and the Trade Deficit: What Is Their Relationship?*, by Marc Labonte and Gail Makinen.

investment rate was still roughly 4 percentage points of GDP higher than America's in 2006. With investment rates so high, perhaps it is of little surprise that the Japanese would prefer to invest their remaining saving in foreign assets.

The Global Saving Glut View

Although Bernanke does not deny that the low U.S. saving rate and large budget deficit contribute to the current account deficit, his emphasis lies elsewhere. He argues that the current account deficit is not primarily "made in the U.S.A." — the result of domestic conditions or policies — but, rather, the result of what he calls a global saving glut. As **Table 1** illustrates, the counterpart to large U.S. trade deficits is large foreign trade surpluses, particularly in East Asia and among oil producers, a situation that is often to referred to as "global imbalances." Bernanke argues that world saving is so abundant because foreign saving rates in the industrialized world are high and investment demand is low as a result of its rapidly aging populations. However, to explain the change in current account balances in the past few years, the relevant measure is the change in global saving. The increase in global saving, he argues, is the result of the developing world's shift from a net borrower to a net lender. This has occurred, he believes, for several reasons.

First, the series of financial crises in the developing world in the late 1990s (e.g., Mexico, Southeast Asia, Turkey, and Argentina) reduced the developing world's ability to borrow. As a result, capital that was previously flowing in the developing world needed a new destination. These crises also motivated developing nations to improve their fiscal position through less borrowing, lower budget deficits, and higher foreign exchange reserves. An accumulation of foreign exchange reserves by the central bank is a form of capital outflows (lending abroad) and corresponds to an increase in the current account surplus. Accumulating foreign reserves represents a form of national saving that is undertaken by the central bank rather than private citizens. Bernanke likens foreign reserve accumulation to a country building a "war chest" to make it less vulnerable to future financial crises.[9]

Finally, the rise in oil prices has caused a sudden increase in income and saving (because the increase in income has not immediately been spent) for many developing countries that are oil producers.[10] Between 2002 and 2005, the IMF

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[9] Gruber and Kamin provide econometric evidence supporting this argument. They show that including a financial crisis variable in their regressions helps better explain the shift to current account surpluses in Asia in recent years. Their results should be viewed with caution, however, since their model predicts a large current account surplus in the United States, presumably because it does not take differences in saving rates into account. As they note, even if their model can explain why current account surpluses have increased in East Asia, it cannot explain why that capital has been overwhelmingly invested in the United States. Joseph Gruber and Steven Kamin, "Explaining the Global Pattern of Current Account Imbalances," Federal Reserve Board of Governors, *International Finance and Discussion Papers 846*, November 2005.

[10] Likewise, oil consuming countries, such as the United States, could have reacted to higher (continued...)

estimates that revenue that oil producers earned from oil exports increased by $437 billion, and only about half of the increase was offset by higher imports, whereas the other half was saved.[11] Some of that additional saving has been invested in U.S. assets.

Bernanke does not dispute that the U.S. national saving rate has fallen in recent years and contributed to the rising current account deficit. Instead, he argues that the global saving glut has, in large part, caused the decline in U.S. saving. According to Bernanke, the rise in foreign capital inflows pushed up U.S. equity and other asset prices in the late 1990s, making Americans wealthier. Similarly, after the stock market crash, foreign capital inflows resulted in lower interest rates which, in turn, boosted U.S. housing prices.[12] He argues that, in both cases, Americans responded to increased wealth by saving less and consuming more.

Why did this global saving glut come to the United States, causing the current account deficit? In Bernanke's view, conditions in the United States were ideal to attract the foreign capital.[13] In the 1990s, the high-tech boom led to productivity gains and profit growth that, sustainable or not, made the United States highly attractive to foreign investors. Furthermore, the United States has deep, diverse, and well-governed capital markets that made it a more attractive investment destination than other countries.[14] The United States has often been viewed as a "safe haven" for capital in times of international market unrest. Finally, Bernanke points to the

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[10] (...continued)
oil prices by reducing their saving rate, which would, all else equal, widen their current account deficits.

[11] International Monetary Fund, "Oil Prices and Global Imbalances," *World Economic Outlook*, April 2006, Chapter 2. According to the IMF, oil producers have mostly invested their trade surpluses in portfolio investments in recent years, unlike the 1970s when they invested their trade surpluses mostly in official reserves and bank deposits.

A study from the New York Fed estimated that oil revenues to oil exporters increased by $670 billion between 2002 and 2006, and those revenues have been split about evenly between imports and foreign investments. Matthew Higgins et al, "Recycling Petrodollars," *Current Issues in Economics and Finance*, Federal Reserve Bank of New York, vol. 12, no. 9, December 2006.

[12] Bernanke does not explain why the global saving glut did not prevent the stock market from crashing since, in his view, U.S. assets were highly desirable to foreigners.

[13] Note that Bernanke's views on trade deficits, in which capital seeks out the country with the highest rate of return, are identical to the conventional view. The difference is that the conventional view focuses on what makes U.S. rates of return higher, whereas Bernanke focuses on what makes foreign rates of return low.

[14] Similarly, Caballero describes the developing world as having a shortage of financial assets in which to invest relative to its high saving, creating a high demand for U.S. assets that pushes up their price and drives down U.S. interest rates. He believes the global saving glut will persist until developing countries strengthen their financial systems enough to become more attractive investment destinations. Richard Caballero, *On the Macroeconomics of Asset Shortages*, National Bureau of Economic Research, Working Paper no. 12753, December 2006.

dollar's unique role as the international reserve currency. In particular, many Asian countries sought to limit their currency's movements against the dollar in recent years by accumulating dollar-denominated foreign exchange reserves.[15]

Although the United States was the primary recipient of the world's global saving glut, in Bernanke's view, it was not the only one. He believes the global saving glut is also responsible for the deterioration in the current account balances and rise in asset prices and household wealth of France, Italy, Spain, Australia, and the United Kingdom. Two notable exceptions to this trend are Japan and Germany, which still have large current account surpluses and little asset price appreciation, in spite of both running large budget deficits. Likewise, U.S. budget surpluses in the late 1990s did not prevent the current account deficit from rising.

Differing perspectives on the cause of the current account deficit have different implications for policy options to reduce it. In the global saving glut view, the U.S. current account deficit is due to global forces largely beyond our control. For this reason, Bernanke argues that eliminating the budget deficit, although desirable in itself, would probably have only a modest effect on the current account deficit. He points to research that finds a $1 decline in the budget deficit would reduce the current account deficit by less than $0.20.[16] Likewise, he argues that policy measures to induce higher household saving, although desirable, would most likely be ineffective as long as interest rates are low and housing prices are high. He argues that the global saving glut is unlikely to diminish until capital begins flowing on net into — rather than out of — the developing world.

Analysis

The debate between the conventional view and the global saving glut view cannot be settled by looking at absolute levels of saving worldwide. There is no such thing as too much or too little saving in an absolute sense. As **Table 1** indicates, regions of the world are capable of widely disparate saving and investment rates. High saving/investment rates are found in both economically dynamic (China) and stagnant (Japan) countries. Rather, the debate centers on relative saving rates.

Fundamentally, the conventional view and global saving view can be thought of as two different ways to say the same thing. To paraphrase, the conventional view can be stated as "the trade deficit is caused by the United States saving too little compared to the rest of the world," whereas the global saving glut view can be stated as "the trade deficit is caused by the rest of the world saving too much compared to the United States." What is indisputable, even tautological, is the observation that saving rates are lower in the United States than abroad and that current account

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[15] See CRS Report RS21951, *The U.S. Trade Deficit: Role of Foreign Governments*, by Marc Labonte and Gail Makinen.

[16] Christopher Erceg, Luca Guerrieri, and Christopher Gust, "Expansionary Fiscal Shocks and the Trade Deficit." *International Finance Discussion Paper 2005-825*, Board of Governors of the Federal Reserve System (Washington: January, 2005). This estimate is lower than typically found in other research.

imbalances allows more convergence in countries' investment rates than their disparate saving rates. Economists call these *positive* statements, or statements of fact, as opposed to *normative* statements, or statements of judgment. Although the conventional view and global saving glut view are based on the same positive statements, they lead — at least implicitly — to different normative views. The conventional view implies that the United States should save more to bring its saving rates into line with the rest of the world; the global saving glut view implies that the rest of the world should save less (consume more) and become more similar to the United States.

Despite being based on the same positive statement, the conventional and global saving glut views differ because economists have only *ex post* data on the economy: one can observe (after the fact) that, for some reason, U.S. investment rates significantly exceeded domestic saving rates and that the difference was bridged by the large current account deficit. However, theory and analysis are needed to describe the underlying factors leading to those results. In the conventional view, the saving and investment rates are likely to be thought of as determined by domestic factors, and the foreign capital flows (current account deficit) are likely to be thought of as the residual variable that equilibrates the other two. In the global saving glut view, the foreign capital inflows are the predetermined variable and the domestic saving and investment rates must adjust to accommodate them.

Although the world saving rate has been rising since 2002, it was still below its historical average as a share of GDP in 2006, as shown in **Figure 1**.[17] As the IMF has argued, these data contradict the underlying premise of the global saving glut view, unless the saving glut is taken to mean a dearth of global investment opportunities (worldwide, saving and investment must be equal).[18] If so, then global imbalances may subside when investment demand in the rest of the world increases. The figure also shows that the decline in saving by industrial countries has been sharper than the decline in world saving, whereas saving by developing countries has been rising since the 1980s. Corporate saving has recently risen in industrial countries, but not enough to offset the decline in household and government saving.

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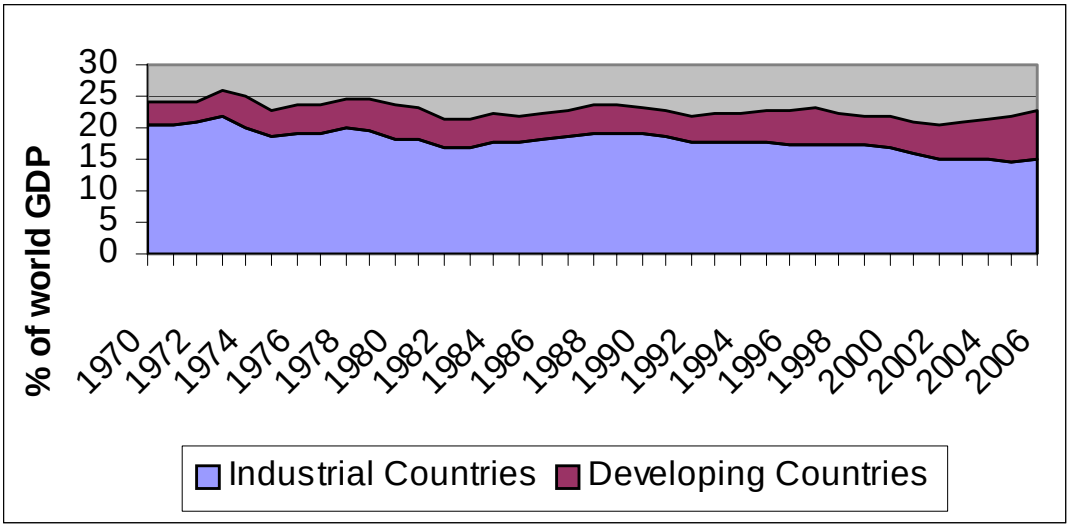
[17] Even when the United States is excluded from data on saving worldwide, no evidence of a global saving glut exists: saving has stayed between 24-25% of GDP each year since 1990.

[18] International Monetary Fund, *World Economic Outlook*, September 2005, chapter 2. Unless otherwise noted, all further references to the IMF refer to this document. Other studies include Richard Cooper, *Understanding Global Imbalances*, Federal Reserve Bank of Boston, Conference Series 51, June 2006; Menzie Chinn and Hiro Ito, *Current Account Balances*, Financial Development, and Institutions," National Bureau of Economic Research, Working Paper no. 11761, November 2005.

Figure 1. World Saving as a Share of World GDP, 1970-2006



Source: IMF.

Real (inflation-adjusted) interest rates are another piece of evidence that might help determine what is driving saving and investment patterns. (Nominal interest rates are lower than in recent decades because of the decline in inflation; however, this information is not useful by itself because saving and investment behavior is influenced by real, not nominal, interest rates.[19]) The conventional view would predict that the foreign capital inflows would be attracted to the United States by high and rising interest rates caused by the falling supply of national saving (due to a rising budget deficit or lower private saving) and the rising demand for investment spending. In contrast, the global saving glut view would predict that the abundance of saving (or dearth of investment demand) abroad would cause low and falling interest rates worldwide.

As seen in **Figure 2**, real interest rates, as measured by the 10-year U.S. Treasury bond yield, have been low and falling compared with recent years.[20] Long-term interest rates have also been unusually low relative to short-term rates since the Fed tightened monetary policy. Despite an uptick in 2006, interest rates remained below rates in the 1980s and 1990s. The same broad pattern has been seen in long-term government bond yields for the other major industrial economies. This pattern would support the global saving glut view — although global saving is currently at low levels, perhaps global investment demand is even lower. However, in the 1960s

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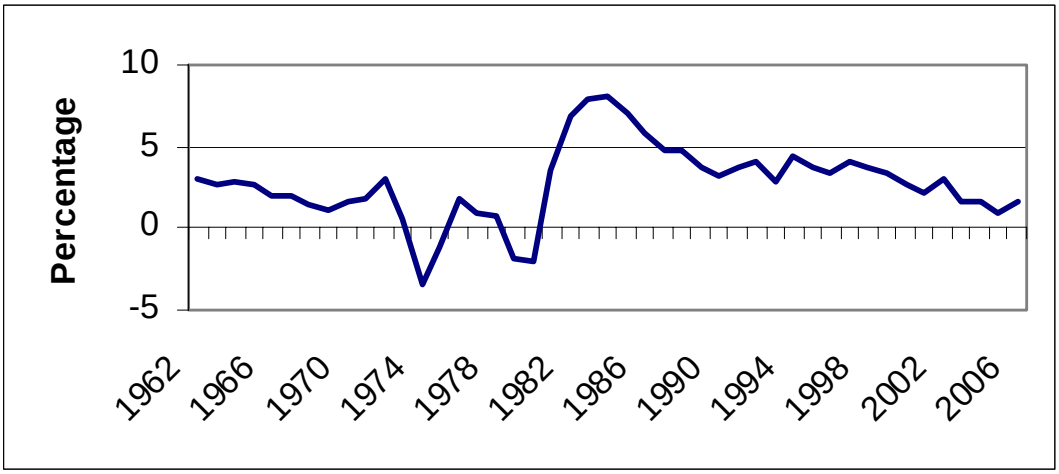
[19] Ideally, real interest rates would be determined by *ex ante* expectations of inflation at the time saving and investment decisions were taken. Economists can reliably measure real interest rates only with *ex post* inflation data. As a result, if inflation were higher than anticipated, it may appear that real interest rates were lower than individuals believed at the time they made their saving and investment decisions. This factor may explain why real interest rates were periodically negative during the 1970s.

[20] The IMF estimates that capital inflows have lowered 10-year Treasury rates by 0.86 percentage points, as of May 2005. International Monetary Fund, "Oil Prices and Global Imbalances," *World Economic Outlook*, April 2006, Chapter 2.

and 1970s, real interest rates were lower than present. That pattern would also hold true if the chart included rates from earlier years; suggesting that in the long-term, current interest rates are not unusually low and therefore do not provide clear evidence of a saving glut.[21] Arguably, however, international capital flows have only been an important determinant of interest rates more recently, so the older data are not a relevant comparison.

Figure 2. Real 10-Year Treasury Yields, 1962-2006



Source: CRS calculations based on data from Federal Reserve and Bureau of Labor Statistics
Note: Real interest rates = (interest rates) — (change in the consumer price index)

Worldwide, current account balances sum to zero; thus, a rise in one country's trade balance must be offset by a fall in another's. **Table 2** offers a more sophisticated picture of what is driving global capital flows by breaking down regional changes in saving, investment, and current account patterns since 1997. Over that period, there was a large move to current account surpluses in the developing world (mainly as a result of developing world financial crises and the higher oil price), and a large increase in the U.S. current account deficit. This movement is the opposite of what simple economic theory would predict — that capital should flow into capital-poor developing countries and out of the industrial world. Indeed, when large current account deficits have emerged in the past, they have usually been in developing countries. The increase in Japan's current account surplus is also notable. Although the increase in Japan's current account surplus was smaller as a share of its GDP than in developing countries, the increase was significant in dollar terms because its GDP is much larger. In other regions, the changes in the current account were more modest.

[21] See Luis Catao and George Mackenzie, *Perspectives on Low Global Interest Rates*, International Monetary Fund, Working Paper 06/76, March 2006.

Table 2. Change in Saving, Investment, and Current Account Balance as a Percentage of GDP, 1997-2006

	Saving	Investment	Current Account Balance
United States	-3.9	+0.2	-4.8
Japan	-2.7	-4.3	+1.6
Euro Area	-0.3	+1.1	-1.7
China	+16.6	+12.0	+4.5
Other East Asia	-2.9	-11.0	+8.2
Other Emerging Markets	+2.4	+0.6	+1.7
Oil Producers	+6.7	-4.0	+10.7

Source: CRS calculations based on data from IMF, *World Economic Outlook*, April 2007; IMF, World Economic Outlook database.

Another major change during this period was the large decline in investment as a share of GDP in Japan, the Other East Asia region, and the Oil Producing region, which led to increases in the current account surplus in all three regions. Investment fell in Japan because of the persistent economic slowdown. It fell in East Asia — by more than 10 percentage points of GDP — because of the Asian financial crisis of the late 1990s. For the world as a whole, only China saw a large increase in investment spending, so world investment rates fell. These data support the saving glut hypothesis only if the glut is defined in terms of weak investment demand.

As can be seen in the table, a case for a global glut (due to excess saving) can be made only for China, Other Emerging Markets, and the Oil Producing Region, which all have seen significant increases in their saving rate since 1997. (In China's case, the large increase in the saving rate was accompanied by a large increase in the investment rate, so the increase in its current account surplus was smaller.) However, those saving increases were offset by saving declines in the other regions of the world, so that world saving fell. The decline in saving was particularly pronounced in the United States (which supports the view that the current account deficit was "made in the U.S.A.," and not the result of greater foreign demand for U.S. assets) and Japan.

In many regions, the change in the saving rate over this period was driven more by changes in public saving (the government budget balance) than private saving. This observation casts doubt on the global saving glut argument that the imbalances are being driven by market forces seeking out the highest rate of return. If foreign

governments had not begun saving more, and the U.S. government saving less,[22] then global current account imbalances might have been much smaller. This evidence is consistent with the conventional view and its "twin deficits" prediction, and inconsistent with the global saving glut view that the fall in U.S. saving is primarily the rational response of private individuals to higher house values. Because the budget deficit was "made in the U.S.A.," it is difficult to argue that the current account deficit was not.

Role of Foreign Reserves

In determining why international capital flows have changed, an important consideration is the form they have taken. Official foreign exchange reserves in developing countries more than doubled in dollar terms from 2003 to 2006, and more than tripled from 2001 to 2006, rising to $3 trillion in 2006.[23] In many East Asian countries, although overall saving has fallen, there have been large increases in foreign exchange reserves, as shown in **Figure 3**.[24] When a country accumulates foreign reserves, its trade surplus increases (or trade deficit decreases) and its currency appreciates less than it would otherwise. Many Asian countries, including China and Japan, have not seen their currencies significantly appreciate against the dollar in recent years.[25] These countries presumably were attempting to maintain the attractiveness of their exports, but may also have been attempting to strengthen their fiscal position to stave off future financial crises (à la Bernanke's war chest analogy). The accumulation of foreign reserves in oil-exporting countries stems from their higher oil revenues in recent years, which has not been completely offset by higher imports. Furthermore, not all state-controlled capital flows in oil-exporting countries are recorded as foreign reserves.[26] The *Economist* recently estimated that $2.5 trillion may be held in various countries' sovereign-wealth funds.[27]

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[22] In the United States, the decline in national saving was dominated by a decline in private saving from 1997 to 2000, and a decline in public saving from 2001 to 2004.

[23] International Monetary Fund, *World Economic Outlook*, Statistical Appendix, April 2007.

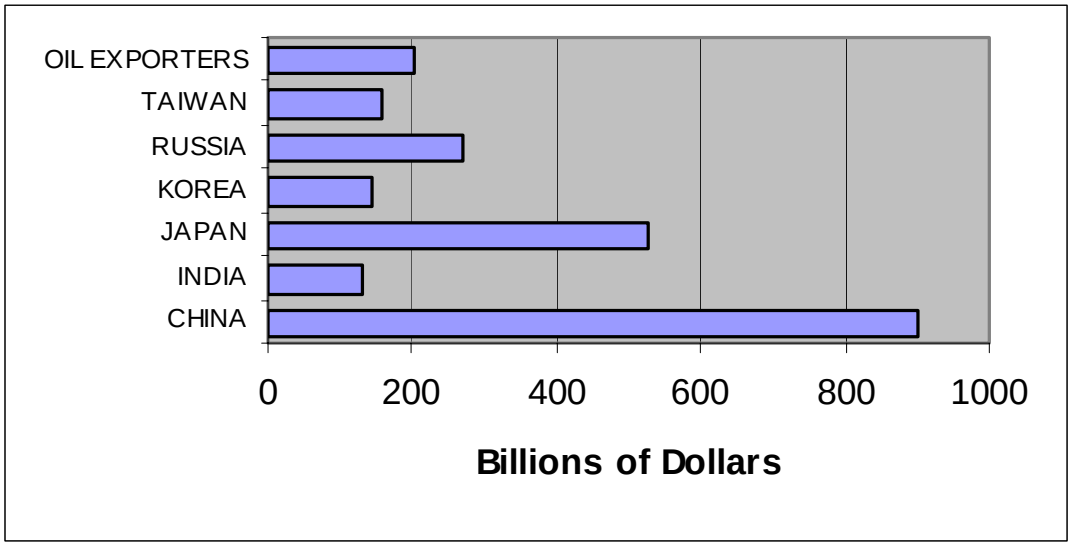
[24] A fraction of foreign reserves are held in U.S. assets. No data source by country exists to determine what share of the increase in foreign reserves were in U.S. assets. Overall, foreign official holdings of U.S. government debt roughly doubled from $1,034 billion in 2000 to $2,105 billion in 2006.

[25] See CRS Report RL32165, *China's Currency Peg: Economic Issues and Options for U.S. Trade Policy*, by Wayne Morrison and Marc Labonte.

[26] Matthew Higgins et al., "Recycling Petrodollars," *Current Issues in Economics and Finance*, Federal Reserve Bank of New York, vol. 12, no. 9, December 2006.

[27] "The World's Most Expensive Club," *Economist*, May 26, 2007, p. 79.

Figure 3. Cumulative Increase in Foreign Exchange Reserves in Selected Countries, 2000-2006



Source: Economist Intelligence Unit.

A large share of U.S. net capital inflows have come from official rather than private sources in recent years. Reserve accumulation by foreign governments accounted for 67% of U.S. net capital inflows in 2004 and 42% in 2006. If domestic interest rates are being held down by official foreign capital inflows, foreign central banks are preventing the market from sending a signal to Americans to save more or invest less.[28] The effect on the U.S. economy is the same whether capital inflows come from private or official sources; however, the motivation is quite different, and the global saving glut view is meant to explain the motivation. If Asian governments are motivated to accumulate foreign reserves primarily to boost the competitiveness of their export industries, then this casts doubt on the inevitability of the U.S. current account deficit stressed in the global saving glut view. Had foreign governments not intervened in foreign exchange markets, private foreigners might have raised domestic investment rates or lowered their national saving rates, thereby preventing any foreign saving glut from emerging.[29] The fact that a large share of foreign capital inflows have taken the form of official purchases of U.S. government bonds, as opposed to private investors buying private U.S. assets, suggests that recent capital flows have not been primarily motivated by rate of return considerations.

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[28] Dooley et al. argue that long-term interest rates are unusually low relative to short-term rates because investors believe that this pattern will continue in the future. Michael Dooley et al., *Saving Gluts and Interest Rates: The Missing Link to Europe*, National Bureau of Economic Research, Working Paper no. 11520, July 2005.

[29] For more information, see CRS Report RS21951, *U.S. Trade Deficit: Role of Foreign Governments*, by Marc Labonte and Gail Makinen.

Future Prospects

Many observers are concerned whether the presence of global imbalances (large U.S. trade deficits and foreign trade surpluses) is sustainable.[30] Although current account imbalances are larger than in the past, international capital markets are deeper, barriers to international capital movements are low, and capital is more mobile. On the other hand, larger and more mobile capital flows create the potential for more significant economic disruption if they were to reverse.

Economic theory cannot predict how much a country should borrow abroad (at low levels), but if borrowing were becoming burdensome, one would expect net investment income payments abroad to be large. Despite being the world's largest debtor country, the United States earns more abroad on its foreign assets than it pays out to foreign lenders. (Although its liabilities exceed its assets, the United States is earning more on its assets than it is paying on its liabilities.) As long as this is the case, it is difficult to see why the current account deficit is not sustainable — although it is implausible that the United States could borrow *limitlessly* without foreign debt payments becoming unsustainably large. Bernanke points out that one potentially troubling feature of the current situation is that so much investment has been residential, which is unlikely to increase the nation's productive capacity and reduce the burden of paying back foreign debt in the future.

So far, global imbalances have not disrupted economic activity and have arguably been mutually beneficial, since they have allowed low saving economies like the United States to increase their investment rates and high saving economies like Japan to earn a higher rate of return. Thus, the mere existence of current account imbalances cannot be seen as problematic per se. If one were to argue that the current account deficit were harmful to the United States, it would have to be on the grounds of its future, rather than current, economic effects. The most widely cited worst-case scenario is if foreigners became unwilling to lend further to the United States, causing the current account deficit and the dollar to suddenly plummet. This event would presumably cause unrest in financial markets, leading to broader economic disruption. The gap between domestic saving and investment would suddenly need to be bridged through higher domestic saving and lower domestic investment, which would require a sharp rise in interest rates to occur.

If, on the other hand, the current account deficit and dollar were to decline slowly, there would be little reason to expect it to cause economic disruption because the decline in investment spending would be offset by higher production in export- and import-competing industries. Domestic investment would have to fall and domestic saving would have to rise to restore equilibrium to financial markets. Higher interest rates would be the channel through which these changes would occur, and how much interest rates rose would depend on how sensitive saving and investment are to interest rate changes. This would be true in both the conventional view and the global saving glut view.

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[30] For a detailed analysis, see CRS Report RL33186, *Is the U.S. Current Account Deficit Sustainable?*, by Marc Labonte.

The worst-case scenario is presumably based on an assumption that recent lending to the United States has been irrationally high. If financial market participants act rationally, there is little reason to think that foreigners would be lending the United States too much right now and suddenly stop lending money in the future. A related concern is that large capital inflows have stoked asset bubbles in U.S. stock or housing markets, which could also be ruled out if market are rational. Nevertheless, if bubbles were present, it could make the effects of a potential reversal in capital inflows more damaging to the overall economy. Both the conventional and global saving glut views are based on an assumption of market rationality and, therefore, cannot directly address this concern. Nonetheless, the saving glut view may be more reassuring than the conventional view. The saving glut view stresses that foreign capital is flowing into the United States because it has nowhere else to go, and assumes that domestic saving would rise relatively quickly to take its place were interest rates to begin to rise. Some economists have argued that global imbalances will persist because the countries (particularly in East Asia) lending to the United States are just as dependent as the United States on maintaining them in order to sustain domestic economic growth.[31] By contrast, the conventional view stresses that the United States has put itself in a position — through its low household and government saving rates — where it is reliant on foreign capital inflows, and would presumably find it painful to replace that foreign capital were it to dry up.

How long global imbalances persist depend on a number of factors that could be either temporary or permanent. Differences in the business cycle at home and abroad are one temporary factor. The United States is further into the current economic expansion than some other industrial countries, which likely means that consumption and investment demand are stronger in the United States than abroad at the moment. (The U.S. economy may be slowing in 2007, bringing its business cycle more closely in line with foreign economies.) Some of the factors identified as causing the glut — including the decline in investment rates in East Asian economies outside of China, the desire by East Asian central banks to increase their foreign exchange reserves, and the desire by other developing countries to reduce their foreign borrowing — could be temporary or permanent. Government intervention to reduce exchange rate appreciation in East Asia has also had an effect on current account balances worldwide. In the long run, real exchange rates cannot be permanently depressed (because of price adjustment), but adjustment could take several years, and trade flows do not respond to exchange rate changes immediately. The disparity in saving rates between Asia and the United States is also likely to be a longer lasting, if not permanent, factor.[32]

Simulation Results. Of course, a dollar collapse is only one possible (and unlikely) outcome for the current account's future movement. The IMF recently

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[31] Michael Dooley et al., "An Essay on the Revised Bretton Woods System," National Bureau of Economic Research, working paper 9971, September 2003.

[32] See Zanny Minton Beddoes, "The Great Thrift Shift," *The Economist*, September 24, 2005.

estimated what would happen to the U.S. current account deficit under a variety of different scenarios based on historical data.[33] According to their estimates:

- If the U.S. saving rate rose by one percentage point of GDP, the current account deficit would fall by 0.5 percentage points in three years (this estimate is much higher than the one cited by Bernanke).

- If the Federal Reserve raised short-term interest rates by two percentage points over three years, the U.S. current account deficit would decline by only 0.1 percentage points.

- If GDP growth in Japan or the large continental European countries were to rise by 0.5%, the U.S. current account deficit would fall by 0.2 percentage points (and the Japanese/European current account surplus would fall by 0.3 percentage points) over three years.

- If the investment rate in Indonesia, Korea, Malaysia, the Philippines, and Thailand rose by five percentage points of GDP (which would still leave them with lower investment rates than before the Asian crisis), the U.S. deficit would fall by 0.75% of GDP in three years. If the oil-producing countries raised their investment rates by five percentage points of GDP, the effect on the U.S. deficit would be similar.

- Continuing trade surpluses in oil-producing countries will depend on whether high oil prices persist, and, if so, whether oil producers respond by increasing consumption. If oil producers increase their imports by $150 billion initially and $350 after five years, the U.S. current account deficit would decline by nearly 0.75% of GDP after five years. But the decline in saving by oil producers would increase world interest rates by 0.4 percentage points.[34]

These examples point to both domestic and foreign causes of the U.S. current account deficit and suggest that no single change in conditions would eliminate it.

Similarly, Economist Sebastian Edwards runs regressions based on historical data to estimate whether faster economic growth abroad would significantly reduce global imbalances. He estimates that if a country's GDP growth rises (declines) by one percentage point above (below) trend, then the current account would deteriorate (improve) by one quarter of a percentage point. Since Japan and the euro area are the economies that have been growing below trend and running trade surpluses, he looks at what would happen to global imbalances if they grew faster. For 2005, Edwards estimates that if Japan's economy grew 3.3% faster its trade surplus would fall by $27 billion, and if the euro area's economy grew 1% faster its trade surplus would

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[33] Except where noted, estimates are from International Monetary Fund, *World Economic Outlook*, September 2005, Chapter 2.

[34] International Monetary Fund, "Oil Prices and Global Imbalances," *World Economic Outlook*, April 2006, Chapter 2.

fall by $13 billion. As a result, the U.S. trade deficit would fall by $23 billion — less than one-tenth the overall deficit.[35]

Conclusion

The difference between the conventional view and the global saving glut view is mainly one of perspective. The conventional view focuses on the low level of U.S. saving relative to the rest of the world; the global saving glut view focuses on the high level of world saving relative to the United States. The two theories are not necessarily mutually exclusive; they are different interpretations of the same set of facts.

Developing countries outside of China have seen a large increase in their current account balances in recent years due to higher saving rates and lower investment rates. (China has also seen a large increase in its current account balance because saving has risen faster than investment.) Two main forces seem to be driving the shift. First, oil producing countries have chosen to reinvest rather than consume a significant portion of their increased oil revenues. Second, many East Asian countries have responded to the financial crises of the 1990s by increasing government saving and official foreign reserve accumulation. These have been important factors, in recent years, driving international capital flows traditionally neglected by the conventional view, with its focus on domestic causes of the U.S. trade deficit. Nevertheless, the global saving glut has likewise neglected an important domestic cause of the trade deficit: the large decline in domestic saving — particularly government saving — in recent years. This decline makes the United States far from the passive actor in the movements of international capital that it appears to be in the global saving glut view.

Casting doubt on the global saving glut view are data that show that global saving is close to a four-decade low at present. The recent decline in real interest rates suggests that global investment demand may currently be low as well. However, real interest rates are not particularly low by historical standards.

The risk that the record current account deficit could lead to economic disruption for the United States is still considered small by most economists, but potentially dangerous. Raising national saving through policy changes such as reducing the budget deficit remains the best defense against this risk. At worst, those measures would prove ineffective, as the global saving glut view predicts, but would still have a salutary effect on the U.S. economy in their own right.

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[35] Sebastian Edwards, *On Current Account Surpluses and the Correction of Global Imbalances*, National Bureau of Economic Research, Working Paper no. 12904, February 2007. Edwards points out that faster growth would not necessarily reduce a trade surplus. For example, if the source of faster growth were higher exports, the trade surplus would likely increase.