

CRS Report for Congress

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Changing Causes of the U.S. Trade Deficit

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Summary

The nation's trade deficit is equal to the imbalance between national investment and national saving. National saving is the sum of household saving, business saving, and public sector saving (a budget deficit equals public sector borrowing). In the 1990s, this imbalance was largely due to a private investment boom and decline in private saving. In the 2000s, private investment fell and private saving rose. All else equal, this should have led to a smaller trade deficit. However, all else was not equal during this period — the public sector budget moved from a surplus of 2.4% of GDP in 2000 to a deficit of 3.3% in 2003. Thus, while the borrowing needs of the U.S. private sector declined, the public sector borrowing needs increased, and a stable U.S. national saving-investment gap continued to be filled by foreign lending as a result. The composition of capital inflows has also changed from the 1990s. While capital inflows were from mostly private sources through 2001, since then they have come increasingly from official sources. This is largely the result of a few Asian countries purchasing U.S. assets to mitigate or prevent their currencies from appreciating against the dollar. If official capital inflows slowed sharply, the dollar and trade deficit would likely decline, U.S. interest rates would rise, and U.S. spending on capital investment and consumer durables would fall, all else equal. This report will be updated as events warrant.

By accounting identity, the current account balance (which primarily consists of the trade balance) must equal the capital account balance, or net international capital flows. That is because a country can borrow from abroad only if it imports more than it exports.¹ Capital outflows are investments abroad by Americans while capital inflows are investment in U.S. assets by foreigners. Capital flows can take the form of direct investment or portfolio investment in financial securities. Also by identity, U.S. investment spending must equal national saving plus net capital flows. National saving consists of private saving (household and business saving) and public sector saving (federal, state, and local government saving). When the public sector runs a budget deficit, it has a negative saving rate and reduces national saving.

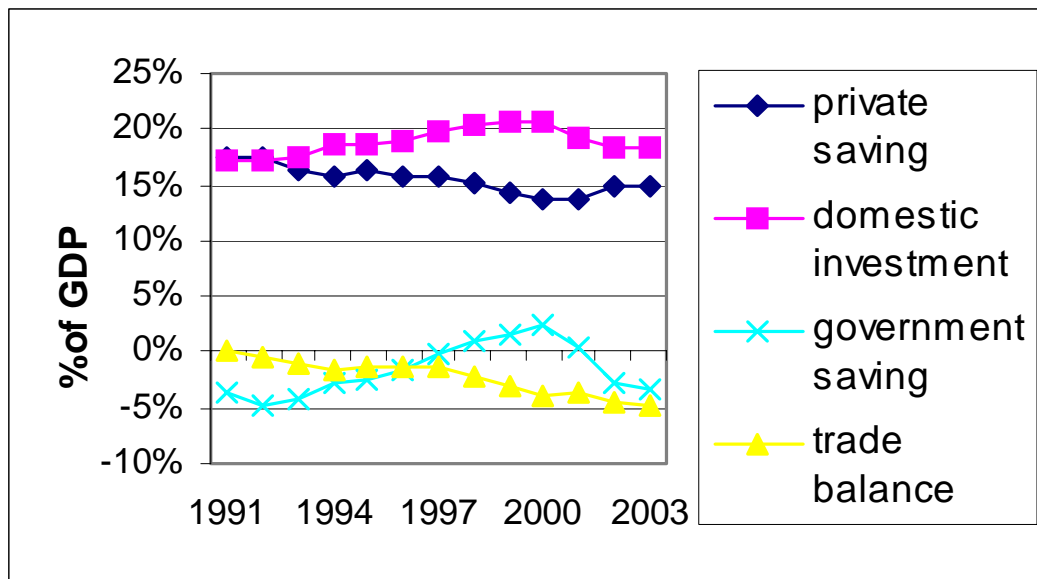
¹ For more information, see CRS Report RL30534, *America's Growing Current Account Deficit*, by Marc Labonte and Gail Makinen; and CRS Report RL31032, *The Trade Deficit: Causes, Consequences, and Cures*, by Craig Elwell.

These concepts are useful when attempting to provide a proximate explanation for why the U.S. trade deficit has stayed at very high levels from the late 1990s, a period of rapid economic expansion, through the recession of 2001, and to the present.

The 1990s Experience

In the late 1990s, the United States experienced an investment boom and a decline in the private saving rate. As can be seen in **Figure 1**, there was a widening gap between the private saving and investment rates as the decade progressed. The result was a growing trade deficit to fill that gap — from 1.3% of GDP in 1997 to 4% of GDP in 2000. Although the public sector budget balance improved as the decade progressed, moving to surplus in 1998, this shift was not enough to offset the growing private saving-investment imbalance, and the trade deficit continued to grow. So paradoxically for some, the budget deficit and trade deficit did not move in the same direction, as had occurred in the 1980s. The reason was that all else did not remain constant — investment rose and private saving fell.

Figure 1: U.S. Saving, Investment, Budget Balance, and Trade Balance



Source: Bureau of Economic Analysis (BEA), U.S. Department of Commerce

Notes: Private saving equals household and business saving. (Net) government saving equals the combined budget balance of the federal and state and local sector. Domestic investment includes private and public investment. The trade deficit measure used in this chart is measured as the current account deficit in the BEA saving and investment tables. BEA measures government saving on a calendar year basis using a different definition than in budget documents.

Why did the 1990s investment boom lead to a growing trade deficit and an appreciating dollar? The substantial acceleration in productivity growth that began in the last half of the 1990s undoubtedly increased the real rate of return on U.S. capital. Since this rise in productivity was a largely American phenomenon, real rates of return in the U.S. rose relative to those abroad and this served to increase the attractiveness of U.S. assets. The response of foreigners (and Americans) was to substitute American assets for

non-American assets in their portfolios.² To buy American assets, foreigners had first to buy dollars. This drove up the price of the dollar on the foreign exchange market (the dollar appreciated) and, as explained above, this led to a growing trade deficit.

The 2000s Experience

In this decade, the investment boom came to an abrupt halt with the 2001 economic recession. Domestic investment spending fell from 21% of GDP in 2000 to 18% of GDP in 2002-2003. Over that period, private saving increased from 14% of GDP in 2000 to 15% of GDP in 2002-2003. Since the trade deficit reflects the imbalance of saving and investment, one would assume that the investment decline would result in a smaller trade deficit, all else equal. However, other things were not equal during this period — the public sector went from being a net contributor to national saving, running a budget surplus of 2.4% of GDP in calendar year 2000, to a net borrower, running a budget deficit of 3.3% of GDP in 2003.³ The shift in the fiscal position meant that the nation's overall shortfall of U.S. saving in the 2000s was roughly the same as the 1990s even though the borrowing needs of the private sector were much diminished. It also meant that long-term interest rates did not fall as much as they otherwise would have.⁴

Investors choose where to invest based on the (risk-adjusted) rate of return. The Federal Reserve had an important influence on interest rates from 2000 to 2003, lowering short-term interest rates from 6.5% to 1%. It might be expected that the fall in interest rates that accompanied the investment slowdown and the steep stock market decline of mid-2000 to 2002 made the U.S. economy a less attractive investment destination. As can be seen in **Figure 2**, this was, in fact, the case. Annual private capital inflows fell from about \$1 trillion in 2000 to \$0.6 trillion in 2002-2003. However, at the same time that the U.S. was experiencing an investment downturn, so was much of the rest of the world, and private U.S. investment abroad also fell sharply, from \$0.6 trillion in 2000 to \$0.3 trillion in 2002. Thus, the fall in capital inflows was mostly offset by the fall in capital outflows, and the decline in net private foreign investment — from \$0.4 trillion a year in 2000-2002 to \$0.3 trillion in 2003 — was much more modest.

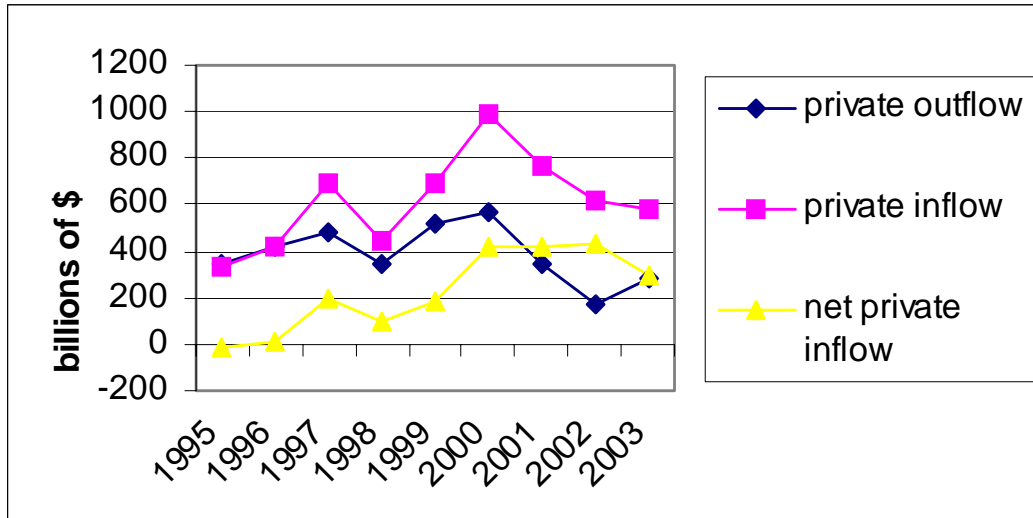
Based on the decline in net private capital flows, one would have expected the trade deficit to decline by about \$100 billion in 2003. This did not occur because of an increase in official capital inflows — primarily, purchases of U.S. assets by foreign central banks.

² For more information on foreign lending to the United States, see CRS Report RL32462, *Foreign Investment in U.S. Securities*, by James Jackson.

³ Most of the fiscal shift from 2000 to 2003 came at the federal level, since state and local governments have limited flexibility in their fiscal stance because of balanced budget rules. The federal budget shifted from a surplus of 1.9% of GDP in 2000 to a deficit of 3.3% of GDP in 2003.

⁴ This was the same logic behind the “twin deficits” argument made in the 1980s. See CRS Report RS21409, *The Budget Deficit and the Trade Deficit: What is the Connection?*, by Marc Labonte and Gail Makinen.

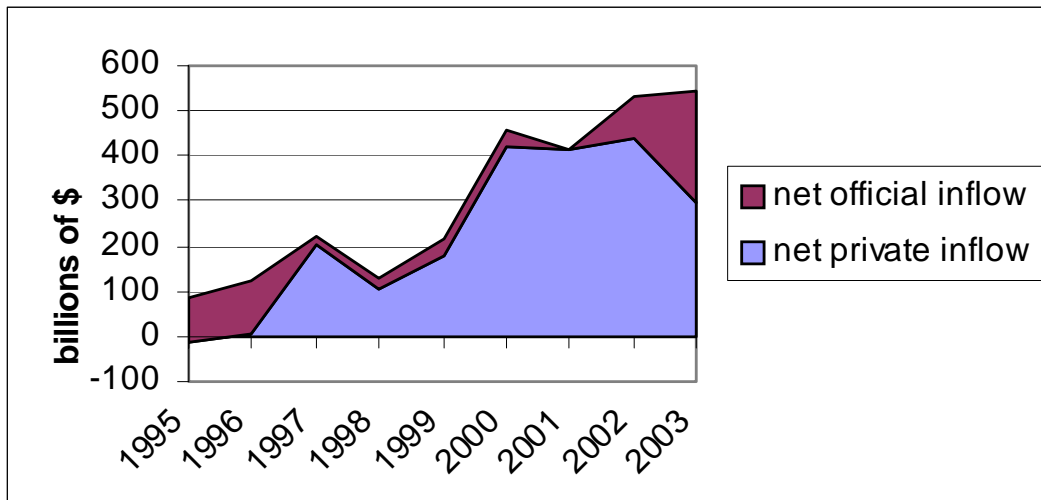
Figure 2: Composition of U.S. Private Capital Flows



Source: Bureau of Economic Analysis

As seen in **Figure 3**, net private inflows tracked net total inflows very closely from 1998 to 2001. After that, net total inflows kept climbing while net private inflows first stabilized in 2002 and then fell in 2003. The two diverged because of the sharp rise in net official capital inflows from \$0 in 2001 to \$94 billion in 2002 to \$249 billion in 2003. Four countries had very large official foreign exchange reserve accumulations in recent years — China, India, Japan, and Taiwan. In 2003, official foreign exchange reserves increased by \$117 billion in China, \$32 billion in India, \$202 billion in Japan, and \$41 billion in Taiwan. (These increases represent foreign exchange reserves accumulated from all countries; data for accumulations from only the United States are not available.)

Figure 3: U.S. Net Capital Inflows by Type



Source: Bureau of Economic Analysis

The decline in net private capital flows placed downward pressure on the U.S. dollar since foreigners needed to buy fewer dollars to buy U.S. assets. But the rise in net official capital inflows tempered that decline, and the dollar has fallen 11% in real terms since its

peak in February 2002. When one examines the depreciation of the dollar since then, it is due mainly to a decline against the Euro (30%), the Canadian dollar (20%), and the British pound (22%). In all three areas, short-term interest rates remained higher than in the United States.⁵ The dollar declined by 17% in nominal terms against the Japanese Yen and stayed constant with the Chinese Yuan. Japan is linked to the United States with a flexible exchange rate while China formally maintains a fixed exchange rate.

Although Japan allows its currency to float, it would appear that the government is committed to a policy of mitigating the Yen's appreciation relative to the dollar so as not to nip Japan's revival of economic growth in the bud and add deflationary pressures to the Japanese price level.⁶ This means that as relative private demand for U.S. goods or assets in Japan declined, the Bank of Japan entered the foreign exchange market and bought dollars (and with them dollar-denominated assets) to moderate the Yen's appreciation. Thus, the bilateral trade deficit between the United States and Japan did not decline as much as it would have if the Bank of Japan had not entered the exchange market to support the dollar. A similar story can be told about Taiwan and India, whose currencies have seen a much smaller appreciation against the dollar than the yen.

The Chinese role in this situation is more complicated since its government does not allow the free flow of capital out of China. Thus, lower U.S. interest rates are unlikely to have had much of an effect on the bilateral flow of capital from China to the U.S. Instead, the U.S.-China aspect is more directly centered on trade. Many argue that the exchange value of the Chinese Yuan is too low relative to the U.S. dollar and that this undervaluation is growing. Why this is so is often left unspecified. It could be due to a variety of factors: inflation is lower in China than in the United States, productivity is growing more rapidly, a growing number of foreign export-oriented firms are concentrating production in China, and so on. Regardless, what this means is that, over time, China has become an increasingly attractive place from which to buy. The result is a growing trade deficit. This deficit is only possible if the Bank of China buys the surplus dollars represented by the trade deficit at the fixed exchange rate. And this it has done: the foreign exchange reserves of the Bank of China have shown a large increase since 2000. It should be noted that this is in its essence a capital movement from China to the United States — a capital movement set in motion by the Bank of China as opposed

⁵ Interestingly, although short-term rates were lower in the United States than in these other countries, long-term rates were mostly higher. This may be a sign that budget deficits and the low private saving rate have indeed pushed up long-term interest rates as economists have predicted. See CRS Report RL31775, *Do Budget Deficits Push Up Interest Rates and Is This the Relevant Question?*, by Marc Labonte.

⁶ There is a large literature that questions whether official foreign exchange intervention is effective if it is not accompanied by a change in monetary policy (referred to as “sterilized intervention”). The reason being, without a change in interest rates, private investors have an incentive to offset official capital flows with private capital flows, thereby pushing the exchange rate back to its original level. In the Japanese case, it is difficult to tell if the intervention is sterilized because short-term interest rates were already very close to zero and could not easily be lowered further. Indeed, Japan may have been motivated to undertake foreign exchange intervention as a means to expand monetary policy in the presence of near-zero interest rates. In any case, the fact that the yen — rather than depreciating — appreciated by 17% after the large increase in official foreign reserves is prima facie evidence in favor of the proposition that foreign exchange intervention is not always effective.

to private Chinese citizens.⁷ In the official statistics of the United States, this will show up as an official (as opposed to private) capital movement.

What Do These Trends Mean for the U.S. Economy?

Since a large portion of the net capital inflow to the United States has changed from private to official sources over the past few years, does the effect on the U.S. economy change? After all, capital inflows are now based less on private investors' seeking profitable investments in the United States, and based more on efforts by foreign central banks to keep their currency from appreciating against the dollar.

Although the motive for the trade deficit has partially changed since the 1990s, its effect on the U.S. economy remains the same. When private foreigners decide to invest in U.S. assets, they must first obtain dollars, and this pushes up the value of the dollar. This makes U.S. exports and import-competing goods less desirable, reducing production and employment in those industries. On the other hand, the capital inflow increases the supply of saving available to U.S. borrowers, thereby pushing down domestic interest rates. This has an offsetting positive effect on the U.S. economy because it increases interest-sensitive spending on capital investment, residential investment, and consumer durables (such as automobiles and appliances), thereby boosting employment in those industries. In the medium term, the trade deficit has no net effect on U.S. aggregate spending or employment, although there may be transitional effects. It does change the composition of spending and employment, however, away from the trade sector and toward the capital and durable good sectors.

When the trade deficit is instead the result of official capital flows, the outcome is very much the same. When a country reduces its relative demand for U.S. goods and services, U.S. exports (and employment within export industries) fall. With a floating exchange rate, the dollar would depreciate. But if the foreign country has fixed its exchange rate to the dollar, its central bank must instead purchase dollars (and U.S. assets) to prevent the dollar from depreciating. This pushes down U.S. interest rates and stimulates interest-sensitive U.S. spending just the same as if a private capital inflow motivated by relative rates of return had occurred. While this may not be the most efficient use of the nation's (and world's) resources, it should not lead to any underutilization of those resources in the medium term.

Thus, if the purchase of U.S. assets by foreign central banks (official capital inflows to the United States) ceased, the composition of output would change. All else equal, the U.S. dollar would depreciate, increasing the output of U.S. exports and import-competing industries. But at the same time, less capital would be available for U.S. firms to finance their investment spending and for the U.S. government to finance its budget deficit.⁸ As a result, interest rates would rise, all else equal.

⁷ Interestingly, it is noted in the financial press that China is now one of the leading recipients of foreign direct investment (FDI) from around the world. The evidence in this paper suggests that the Bank of China is recycling some of this capital to the United States by offsetting FDI inflows with portfolio outflows.

⁸ Concern has been voiced about the U.S. foreign policy ramifications of the increasing amount of federal debt held by foreigners, which is beyond the scope of this report.