

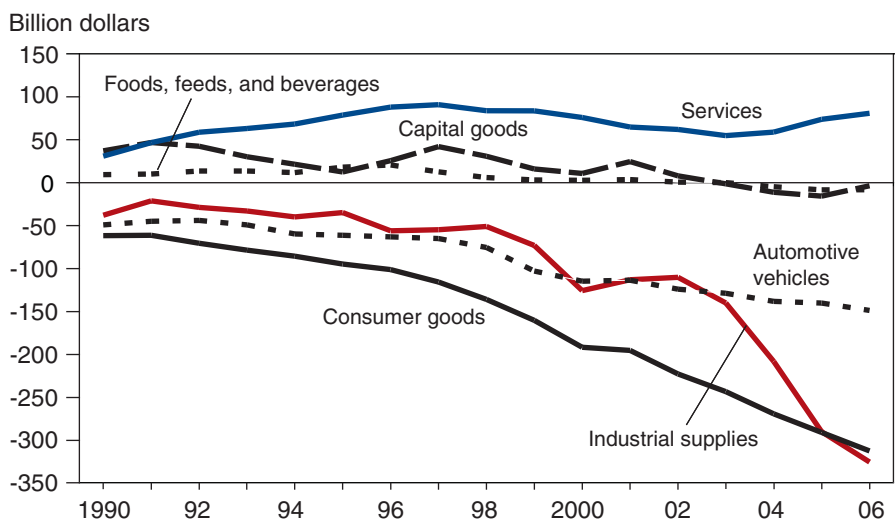
Macroeconomic Influences on U.S. Agricultural Trade

In addition to the influence of shifting patterns of growth in foreign populations and per capita income, cyclical macroeconomic factors associated with consumption and savings patterns, interest rates, and exchange rates affect U.S. agricultural trade. Over much of the past decade, for example, conditions in the U.S. economy encouraged strong consumer spending, leading to rapid across-the-board import growth that overwhelmed a more limited expansion of exports. Recent economic evidence suggests that U.S. consumers, encouraged first by stock market appreciation and then by housing sector wealth gains, drew upon their equity, reduced their savings, and spent more on imports and some export-oriented products. At the same time, growing inflows of foreign capital kept interest rates low and the dollar relatively strong.

Although the dollar has depreciated since 2002, making imports more expensive and exports less expensive, U.S. spending has remained strong and contributed to progressively larger trade and current account deficits.⁷ In 2006, the U.S. current account deficit amounted to a record \$880 billion (6.3 percent of GDP), up from a \$100-billion deficit in 1996. This increase largely reflected rapid import growth in all categories of trade—most notably consumer goods and industrial supplies, but also, to a certain extent, traditional “surplus” categories, such as services and foods, feeds, and beverages (fig. 5).⁸ Declining trade balances in all sectors of the economy indicate that recent changes in U.S. agricultural trade are part of an economy-wide phenomenon.

The high level of the U.S. current account deficit has raised widespread debate about the sustainability of such deficits and the extent to which a potential adjustment would affect U.S. exchange rates, interest rates, consumer spending, and, by extension, food product trade. Different levels

Figure 5
U.S. trade balance declines in all categories



Source: Prepared by USDA, ERS using data from U.S. Department of Commerce, Bureau of the Census.

⁷As measured by an index of real trade-weighted exchange rates (with U.S. markets), the value of the dollar declined from an index value of nearly 106 in 2002 to less than 92 in 2006 (as of September 2006). By this measure, the value of the dollar remains higher than in all but 11 years dating back to 1970 (see USDA, ERS).

⁸Note that the U.S. Department of Commerce “Food, Feeds, and Beverages” category shown in figure 5 is not directly comparable with the USDA definition of agriculture. BEA, 2004 data from “latest news release” 7/13/2005, tables, exhibit 13, www.bea.gov/bea/di/home/trade.htm 1997 data from www.census.gov/foreign-trade/Press-Release/97_press_releases/Final_Revisions_1997/exh12.txt

of national savings and investment rates can allow countries to be net importers and borrowers over extended periods, but eventually trade (and current account) imbalances are expected to readjust as net importers subsequently “repay” their borrowing with net exports.

Given the importance of foreign capital inflows (lending) to the United States, a central concern is that improved investment prospects elsewhere, or a desire for currency diversification, could reduce the willingness of foreign investors and institutions to hold U.S. financial assets (see box, “Understanding the Current Account Balance”). Some of the factors underlying the U.S. current account deficit suggest that an adjustment may occur, having implications for U.S. agricultural trade. Without an increase in rates of return on U.S. assets, lower demand for dollars would lead to further dollar depreciation, more subdued U.S. consumption growth, and lower overall deficits—all of which could raise net U.S. agricultural exports.

Implications of Current Account Deficits

The growth of U.S. current account deficits is linked with both a decline in U.S. savings and changes in investment and savings decisions abroad—particularly among oil exporters and developing countries that have experienced financial crises in the last decade.⁹ Savings have flowed to the United States from nonindustrial countries largely because of the attractiveness of secure, but relatively low, returns on U.S. investments—as reflected by the increase in foreign central bank reserves held as U.S. treasury notes.¹⁰ However, the unprecedented size of the U.S. deficit and the source of lending to the United States each suggest that adjustments could take place that will eventually boost U.S. exports and dampen import growth in all sectors of the economy, including agriculture.

At the end of the 1990s (when the U.S. current account deficit was equivalent to about 3 percent of GDP), Mann (1999) suggested that the current account deficit was sustainable at that time because of the dollar’s special position as the “numeraire” (international reserve) currency in international financial markets. However, Mann noted that as long as the U.S. economy continued to grow faster than that of the rest of the world, foreign investors would continue to choose U.S. dollar denominated assets, keeping the dollar high and ultimately raising the chances of a more profound shift in investor sentiment leading to dollar depreciation. More recently, the Organisation for Economic Co-operation and Development’s U.S. Economic Survey (2004) concluded that an adjustment in the U.S. current account may eventually be precipitated by a change in U.S. and global demand for U.S. dollar assets because “at some stage, these assets may come to occupy too large a share of foreign portfolios, even though their relative returns remain favorable.”¹¹

One reason to believe that capital inflows to the United States eventually may subside is that the less-developed economies accounting for a large share of foreign lending to the U.S normally would attract, or borrow, financial capital rather than lending as their current account surpluses indicate. According to conventional economic theory, the less-advanced economies

⁹Financial crises in Mexico (1994), East Asia (1997), Russia (1998), Brazil (1999), and Argentina (2002) dampened investment demand in these countries and led to an increased flow of savings to external investment opportunities. Following the 1997-98 Asian financial crisis, for example, the region (excluding Japan, Australia, and New Zealand) moved from a small current account deficit to consistent surpluses—largely reflecting a decline in investment rather than a change in savings. Domestic investment in seven East Asian economies fell from a 1996 average of 35 percent of GDP to less than 24 percent during 1998-2002 (Lee, McKibben, and Park, 2004). Increased earnings from oil-exporting countries also found their way into global financial markets due to limited domestic investment opportunities. Although the “oil-exporting” countries had current account surpluses throughout most of the past decade, their collective surpluses have grown from an average of \$52 billion annually during 1995-2002 to \$212 billion during 2003-05.

¹⁰By the end of 2005, foreign investors owned over one-fourth of all U.S. treasury notes, and more than half (about \$2.2 trillion) of privately held treasuries (TD Economics, 2006). In 2004, the amount of privately held U.S. treasuries was roughly the same as foreign central bank reserves, mostly dollar denominated reserves held by Asian countries (Obstfeld and Rogoff, 2004).

¹¹Korea, Japan, and China, among the top holders of dollar-denominated foreign currency reserves, all have indicated the possibility of diversifying their foreign exchange reserves in recent years. For a brief discussion of the implications of such a change, see Federal Reserve Bank of San Francisco, 2005.

Understanding the Current Account Balance

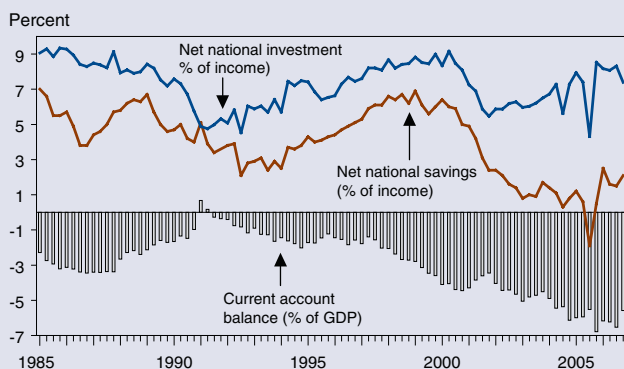
The trade balance and current account balance are distinct but overlapping measures. Like the trade balance, the current account reflects trade in services and goods (such as capital and consumer products, including agriculture), but the current account also includes net investment earnings to and from the rest of the world and is therefore a more complete measure of a nation's annual monetary inflows (borrowing) and outflows (lending) than the trade deficit alone.

The extent to which a country borrows or lends reflects the gap in that country between savings and investment. A current account deficit reveals that a country is borrowing from other countries to sustain investment at a level higher than would be possible given domestic savings. Countries that save more than they invest are net lenders and run a current account surplus. The reason countries save and invest at different levels is determined by a complex interaction of private behavior and public policies that are affected by interest rates, exchange rates, perceptions of risk, and income growth.

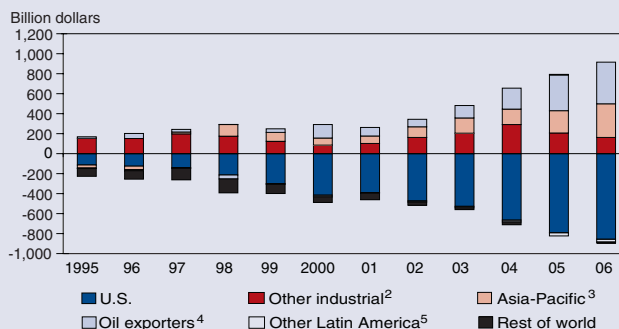
Until recently, observers typically pointed to low U.S. savings rates as the primary cause of rising current account deficits, a view supported by the fact that U.S. savings rates are low both by historical standards and relative to many other economies. While the U.S. gross national savings rate averaged 17.9 percent of GDP during the 1980s, and 16.9 percent during the 1990s, the savings rate has been under 14 percent since 2002.¹ This reflects both low public savings (budget deficits) and household savings rates that have declined from 7 percent of disposable household income in 1990 to less than 1 percent since 2004.² Lower savings rates are often attributed to "wealth effects" in which rising stock market values and appreciation in housing markets lead consumers to spend more of their disposable income.

In addition to lower savings in the U.S., other factors have contributed to increased U.S. current account deficits. One view is that the growing current account deficit is rooted largely in changing savings and investment behavior in other countries (Bernanke, 2005). According to this view, a series of financial crises in emerging economies since the mid-1990s and more recent oil price hikes created a "glut" of global savings. As a result, a number of emerging economies shifted from net borrowers internationally to net lenders beginning in the mid-1990s, as limited domestic investment opportunities caused savings to be channeled to the U.S. in search of additional investment opportunities or more secure returns. This development is reflected in the rising current account surpluses among oil exporters and Asia-Pacific countries that mirror the growing U.S. current account deficits since the mid-1990s.

U.S. savings, investments, and current account balance



U.S. current account deficit and the global "savings glut"¹



¹Annual current account balances.
²Canada, W. Europe (excluding Norway), Japan, Australia, New Zealand.
³Asia-Pacific excluding Japan, Australia, New Zealand.
⁴Top 10 oil exporters (2004): Algeria, Iran, Kuwait, Mexico, Nigeria, Norway, Russia, Saudi Arabia, Venezuela, UAE.
⁵Latin America and Caribbean, excluding Mexico and Venezuela.

¹Rising investment from 1991 to 2001 was also associated with generally increasing current account deficits, but a fall in investment following the 2001 recession was accompanied by even larger declines in savings, which led to continued growth of the current account deficits.

²The other major component of gross national savings is business savings. Note that the figure on the left refers to net, rather than gross, U.S. savings.

typically would offer higher (but riskier) rates of return on investment because capital in those countries is relatively scarce. Bernanke (2005) observes:

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. 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 capital investments needed to promote growth and higher living standards. (pp. 10-11)

By extension, a return to “natural” conditions would imply that foreign savings eventually could be redirected back to investment opportunities in other emerging economies. As suggested by Bernanke, a desire to diversify savings out of the United States could also motivate a shift in assets from the United States to other developed or emerging economies.

Recent research also indicates that while few countries with large current account deficits have experienced sudden current account deficit “reversals,”¹² few countries have been able to maintain “persistent” and “high” current account deficits similar to the level currently experienced by the United States (Edwards, 2005). Edwards (2006) also notes that although the likelihood of large current account reversals is low for advanced countries with flexible exchange rates, the probability of a U.S. current account adjustment has increased significantly.¹³ While the timing and magnitude of a potential U.S. current account “adjustment” is unclear, and perhaps not inevitable, even a relatively small or benign current account adjustment most likely would involve real exchange rate depreciation and higher interest rates (Corden, 2006). A weaker dollar would tend to raise foreign demand for U.S. exports of agricultural (and other) products because the price of U.S. goods would be cheaper in foreign currency terms. Similarly, the price of foreign agricultural (and other) products would increase for U.S. consumers, eventually dampening import growth (see box, “The Role of Exchange Rates”). Higher interest rates in the United States would reinforce these tendencies if they were to result in reduced borrowing and spending on both imported and domestically produced agricultural products.¹⁴

¹²Defined by Edwards (2005) as either a reduction in the current account deficit of at least 4 percent of GDP in a 1-year period (and an accumulated reduction of at least 5 percent over 3 years), or 2 percent of GDP in 1 year (and an accumulated reduction of at least 5 percent over 3 years).

¹³Specifically, Edwards estimates that the probability of a U.S. current account reversal has grown from 1.7 percent in 1999 to 14.9 percent in 2006.

¹⁴For more information on how the U.S. economy would adjust to a reduced flow of foreign savings and the key equilibrating market mechanisms (exchange rates, interest rates, and economic activity), see Marris (1987), particularly chapter 4.

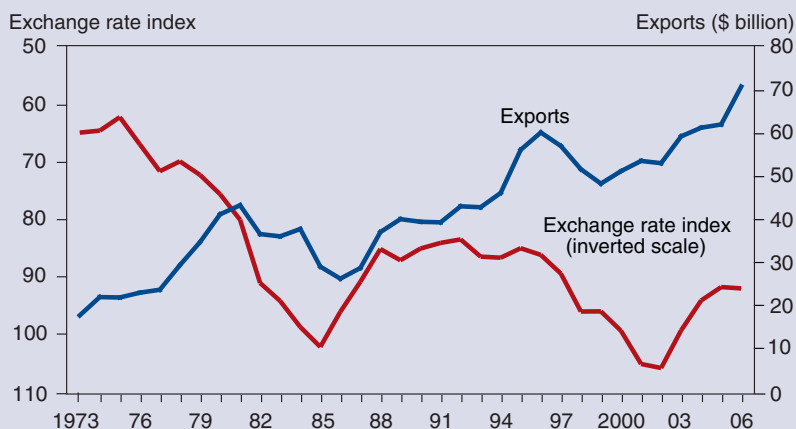
The Role of Exchange Rates

As a measure of the value of a country's currency, exchange rate changes affect the volume and value of a country's imports and exports. When the value of the U.S. dollar falls (depreciates) relative to another currency, for example, imports to the United States become more expensive in dollar terms even if the price in the foreign country remains constant in its own currency terms. Similarly, the price of U.S. goods and services become less expensive in foreign-currency terms even if the U.S. dollar price does not change. Thus, a depreciation of the dollar reduces the demand for, and value of, foreign goods in the United States, and increases the demand for U.S. goods abroad—raising net U.S. exports. A higher valued (appreciating) dollar will have the opposite effect. In practice, it can take some time before exchange rate changes affect trade flows or are reflected in prices paid by consumers (Carter and Pick, 1989).

Although there is a fairly strong historical relationship between exchange rates and the value of U.S. agricultural exports, the relationship is not as strong for agricultural imports. This has been especially true since 2002, when a weakening U.S. dollar corresponded with a rapid rise of imports.¹ While U.S. agricultural exports have grown fairly rapidly since the dollar began declining—rising by 26 percent (\$13.7 billion) between FY 2002 and FY 2006—the value of U.S. agricultural imports has grown by 59 percent (\$24 billion).

Some economists have suggested that one reason the overall U.S. trade balance continues to deteriorate is that the dollar has not depreciated sufficiently, in part due to the intervention of foreign governments in exchange markets (Bivens, 2004). Evidence does indicate that a number of countries accounting for a substantial share of U.S. bilateral trade—particularly in East Asia—manage their currencies to support exports.² Nevertheless, the fact that the U.S. supplier trade-weighted exchange rate index has depreciated by nearly 20 percent between 2001 and 2005 indicates that these exchange rate rigidities, by themselves, are not responsible for the inability to stem the rise of U.S. imports.³

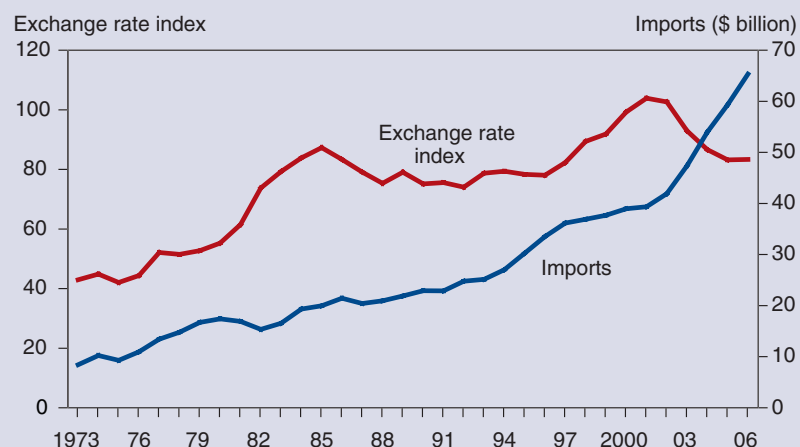
U.S. agricultural exports and the trade-weighted exchange rate index with U.S. markets



Sources: Exports: Bureau of the Census; Exchange rates: USDA, ERS exchange rate data set, real trade-weighted exchange rate (U.S. markets, total trade), www.ers.usda.gov/data/exchangerates/.

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U.S. agricultural imports and the trade-weighted exchange rate index with U.S. suppliers



Sources: Imports: Bureau of the Census; exchange rates: USDA, ERS exchange rate data set, real trade-weighted exchange rate (U.S. suppliers, agricultural trade), www.ers.usda.gov/data/exchangerates/.

The long lag between the dollar depreciation since 2001 and a slowdown of imports reflects the price-inelastic (weakly responsive) U.S. consumer demand for imported agricultural products, perhaps caused by “wealth effects” discussed previously and/or limited pass-through of exchange rate changes to retail prices.⁴ The general pattern reinforces the point that although the direction of the trade balance typically does track exchange rate movements—albeit with some delay—the overall level of the trade balance also reflects other factors affecting demand, such as consumer preferences, income growth, and savings and investment decisions in the United States and abroad.

¹The real trade-weighted exchange rate indices in the figures are inflation-adjusted indices that measure changes in the value of the dollar against the currencies of U.S. agricultural export markets (“U.S. markets”) and import suppliers (“U.S. suppliers”), respectively. The indices are weighted by the value of agricultural exports to countries using that currency (U.S. markets) and by the value of imports from U.S. suppliers. For information on how these indices are calculated, see www.ers.usda.gov/data/exchangerates/.

²Bivens (2004), for example, shows that the real trade-weighted exchange rate index with “major” U.S. trading partners accounting for about 55 percent of U.S. trade—such as the EU, Japan, Canada, and Australia—declined nearly 40 percent between January 2002 and December 2004. An index of “other trading partners” accounting for the rest of U.S. trade—countries such as Mexico, China, Korea, and Taiwan—indicated that the dollar weakened by less than 1 percent during the same time period.

³Currency rigidities may also explain the lack of U.S. agricultural export growth to some markets, such as Taiwan and Malaysia. However, China, with a fixed and widely perceived undervalued exchange rate, has been one of the fastest growing markets for U.S. agricultural exports and now ranks as the fourth largest U.S. agricultural export market.

⁴A study by Campa and Goldberg (2002) found that pass-through rates are significantly less for the U.S. than for other industrialized (OECD) countries, with as little as 40 percent of exchange rate movements passed through to U.S. import prices in the long run. Another study by Marazzi et al. (2005) also finds some evidence of a decline in pass-through rates over time for the food and beverage sector, particularly when compared with rates in the late 1980s.