Trade Deficits Aren't as Bad as You Think

BY GEORGE ALESSANDRIA

Although the amount of U.S. imports and exports has varied greatly over time, in recent years, the U.S. has been running trade deficits. Some people react to such trade deficits with doom and gloom; others cite them as evidence that foreign governments are not playing fair in U.S. markets; still others argue that deficits demonstrate that we are living beyond our means. In this article, George Alessandria offers an alternative view: Trade deficits have benefits. They shift worldwide production to its most productive locations, and they allow individuals to smooth out their consumption over the business cycle.

We live in a global world. Americans drive automobiles produced in Germany and drink Italian wine. Europeans watch movies of Jedi Knights battling the Dark Side on televisions produced in Mexico. This was not always the case.

For instance, the value of U.S. imports of goods and services has grown from 5.1 percent of gross domestic product (GDP) in 1969 to 15.2 percent of GDP in 2004. Likewise, the value of U.S. exports of goods and services has grown from 5.3 percent of GDP in 1969 to 10.0 percent of GDP in 2004.

The amount of U.S imports and exports has also varied quite a lot over time. At times, the U.S. has run trade surpluses, with exports exceeding imports, and at other times, it has run trade deficits, with imports exceeding exports. Recently, though, the U.S. has imported a lot more goods and services from abroad than it has exported to the rest of the world. In 2004, this resulted in the U.S. running a trade deficit of 5.2 percent of GDP. Through the third quarter of 2005, the trade deficit has averaged 5.7 percent of GDP.

Some people react to the trade deficit with doom and gloom. They argue that the trade deficit is evidence that American firms are unproductive and can't compete with foreign firms. Others point to it as clear evidence that foreign governments are not playing fair in U.S. markets. Still others argue that it demonstrates that we are living beyond our means.

But there is an alternative view. In this view, these unbalanced trade flows have two benefits: They shift worldwide production to its most productive location, and they allow individuals to smooth out their consumption over the business cycle. According to this view, the trade balance declines, or moves into deficit, when a country's firms or government is investing in physical capital to take advantage of productive opportunities. These investments expand the infrastructure, build capacity to access natural resources, and take advantage of new technologies. This increase in investment is financed in part by borrowing in international financial markets. By borrowing internationally, a country can invest more without cutting current consumption. When it repays this borrowing in the future, the trade balance increases or goes into surplus. In this respect, a trade deficit may be a sign of a growing and robust economy. Moreover, by increasing a country's productive capacity, these unbalanced trade flows are vital to sustaining the economy's expansion into the future. This view is consistent with some properties of the trade balance in the U.S. and other countries.

MEASURING INTERNATIONAL TRANSACTIONS

Before discussing the reasons that a country runs a trade deficit or surplus, it's useful to review the different

George Alessandria is a senior economist in the Research Department of the Philadelphia Fed. This article is available free of charge at www.philadelphiafed.org/econ/br/index.html.

measures of a country's international transactions. These are recorded in the balance of payment accounts (Table 1). The two main components of the balance of payments are the current account and the capital and financial account. The current account records the value of currently produced goods and services, both imported and exported, as well as the international payment of interest, dividends, wages, and transfers. The capital and financial account records transactions in real and financial assets.[1]

The easiest way to understand the components of the balance of payments is to think of a monthly credit card statement. One part of the statement reports the difference between new charges and payments. This difference corresponds to the current account. The second part of the statement shows the change in the balance on the account. This measures the amount of new borrowing from the credit card company and corresponds to the capital and financial account.

By definition, any unpaid portion of the bill adds one-for-one to the balance. Similarly, a current account deficit generates a capital and financial account surplus of equal magnitude. When a country is spending more than it earns, it is also selling assets to foreigners.

The left half of Table 1 summarizes the different components of the U.S.'s $668 billion current account deficit in 2004. From this we see that the trade balance, which is the difference between the value of exports and the value of imports, was the largest determinant of the current account deficit. But there are two additional, smaller components: net unilateral transfers and net income from abroad. Net unilateral transfers measure the value of gifts, foreign aid, and nonmilitary grants. Net foreign income measures the difference of income payments to American capital and workers employed overseas and income payments to foreign capital and workers employed here.[2] For the U.S., net foreign income mostly depends on the difference in capital income — that is, the difference between interest and profit payments to Americans on overseas investments and interest and profit payments to foreigners from investments in the U.S.

To finance its current account deficit, the U.S. ran a capital and financial account surplus of $668 billion. Foreign purchases of U.S. assets exceeded U.S. purchases of foreign assets by $668 billion. These foreign purchases of American assets funneled foreign savings toward the U.S. Thus, a current account deficit represents periods when foreign savings are flowing into a country.

This brings us to another way of measuring the current account: as the difference between a country's savings and investment. Savings is the difference between what a country produces, measured as GDP, and what is consumed privately and by the gov-

TABLE 1

U.S. Balance of Payments, 2004*
(Billions of Dollars)

Current Account		Capital and Financial Account	
Net Exports	-617.5	Capital Account	-1.6
Net Income Receipts	30.4	Financial Account	584.6
Net Unilateral Transfers	-80.9	Statistical Discrepancy	85.1
Current Account Balance	-668	Capital and Financial Account Balance	668

*Data are from the Bureau of Economic Analysis' Balance of Payments Accounts. Details may not add to totals because of rounding. For more details, see the July issue of the Bureau of Economic Analysis' Survey of Current Business.

[1] In the balance of payments accounts, the purchase and sale of assets by central banks, such as the Federal Reserve in the U.S., are often measured separately in the official settlements balance. To simplify the presentation, we have included these transactions in the capital and financial account. In 2004, net purchases by foreign central banks equaled $392 billion, or 59 percent, of the capital and financial account. For more information on the official settlements balance, see the Survey of Current Business, Bureau of Economic Analysis, July 2005.

[2] A growing and serious concern about measuring the current account is how we treat capital gains and losses on cross-border asset holdings. Economists Pierre-Olivier Gourinchas and Helene Rey construct a measure of the current account with this adjustment and show that current account fluctuations are substantially smaller. In fact, recently, those periods in which the U.S. has run large trade deficits also tended to be those periods in which American asset holdings overseas made large capital gains relative to foreign assets in the U.S.

ernment.[3] When investment exceeds savings, a country finances this gap by borrowing from abroad.

Since 1929, the current account and the trade balance have been nearly identical. The average difference is 0.02 percent of GDP. There have been some large differences of up to 1 percent of GDP, but these have generally been short-lived. This may not continue to be the case. If the U.S. continues to run large current account deficits and to borrow from the rest of the world, the stock of foreign assets in the U.S. will grow relative to the stock of U.S. assets overseas. The payments on this debt can lead to deficits in the future, just as a high credit card balance today means more interest payments in the future.

For now, though, we will consider the current account and the trade balance interchangeably, partly because, as we have seen, historically they have not differed by much.

INTRODUCING INTERTEMPORAL TRADE

Just as an increase in the balance on a credit card bill involves new borrowing from the credit card company, when foreigners buy U.S. assets, Americans are borrowing from the rest of the world. This international borrowing and lending is based on the concept of intertemporal trade. The notion of intertemporal trade is based on the idea that people's purchases and income may not always match up over time. When this occurs, people use financial markets to borrow and save to make up the difference between what they buy and what they earn.

Countries are just a collection of individuals:[4] When these individuals collectively spend more than they earn, they finance the difference by either selling assets or borrowing. However, I might go to my neighbor (indirectly through a bank or credit card) to borrow the amount by which my purchases exceed my income. When a country's purchases exceed its income, it pays for the difference by borrowing from its trading partners. Thus, a country can have a trade deficit either because it is borrowing or because it has made some loans in the past for which it is currently being repaid.

A useful way to think about intertemporal trade is to consider the life cycle of a typical doctor. When she is young, she does not have many skills. Rather than work at a low-wage job, she goes to college and then on to medical school, followed by an internship and residency. Before starting to work, she has little to no income, so she must borrow to pay for school and her living expenses. While in school, she is investing in accumulating skills. These skills raise the wage she can command once she is working. In this case, she borrows when she is young and invests in education. Once out of school, she can repay these loans and start accumulating savings for retirement. Through financial markets she lends her savings to finance other people's investments. Once she has retired, her income is low again, and she lives off the income from her savings.

This borrowing and lending over her lifetime reflects intertemporal trade. She has traded part of her income stream when she is working for some payments when she is young and some payments when she is old. This intertemporal trade can involve long periods of borrowing and long periods of saving.[5] This borrowing and lending is efficient, since it allows a person to enter a profession, such as medicine, that makes the best use of her abilities.

> International financial markets allow countries to borrow and lend over time through the purchase and sale of financial assets.

International financial markets allow countries to borrow and lend over time through the purchase and sale of financial assets. Just as the doctor benefits from intertemporal trade, international financial markets generate similar benefits. Let's consider two important reasons why countries borrow and lend over time.

International Production Shifting. The basis of the idea of international production shifting is the notion that you want to make hay while the sun shines. That is, when good productive opportunities present themselves, people can take advantage of them by investing and working more.

Over time, the productive opportunities in a country change. New opportunities present themselves and old ones close. Some industries make technological advances, while others

[3] For those familiar with national income and product accounts, this is the familiar relationship: Trade Balance =Savings-Investment, where Savings = GDP-Private Consumption-Government Consumption.

[4] Countries are composed of individuals, firms, and governments. However, individuals own firms and governments are made up of people. So, for simplicity, we view countries as a collection of individuals.

[5] Strictly speaking, when our doctor borrows to finance her education and expenditures, she is selling a financial asset with a claim against her future income. Lenders carry these assets as a credit on their balance sheets.

become obsolete. Some of these opportunities are small, and others are large. To take advantage of these opportunities, firms need to hire workers and invest in new equipment, structures, and software.

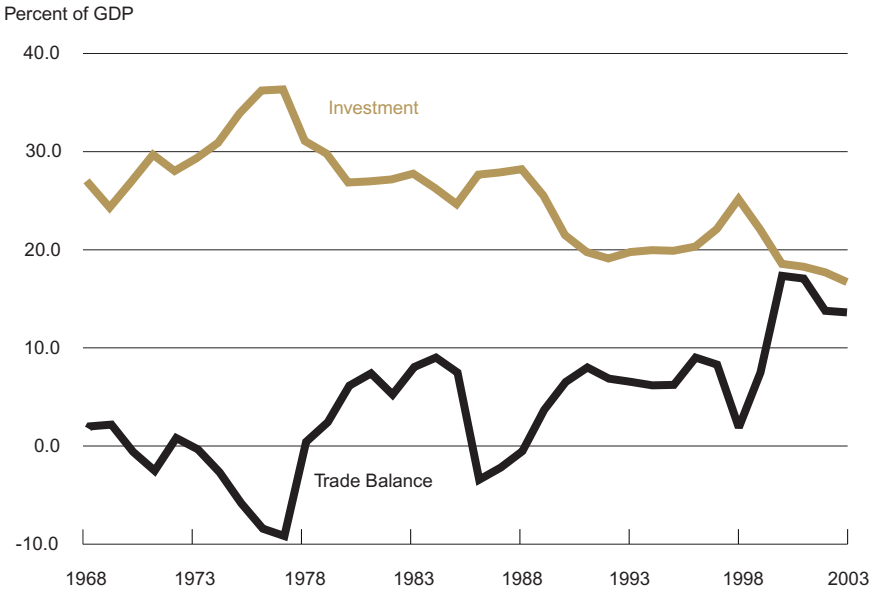
Norway provides a clear example of one of these productive opportunities. In the 1960s, rich petroleum deposits were discovered in the North Sea. Norway was one of the major beneficiaries of this discovery. Getting to these valuable oil and gas deposits required large and repeated investments in infrastructure, such as off-shore oil platforms, transport pipelines, ships, and helicopters. Norway also needed to develop a knowledge of exploration and extraction to precisely locate and exploit these resources. At the time of these discoveries, Norway lacked the equipment and expertise to take advantage of the opportunity. To do so, it borrowed from the rest of the world.

Because of the time involved in building infrastructure, oil production did not start in earnest until the mid-1970s. Although the oil revenue would eventually pay for them, the investments had to be paid for in advance. Norway financed these investments by borrowing from abroad (Figure 1). From the figure, we can see Norwegian investment grew substantially from 1969 to 1977, financed in part by a series of almost continual trade deficits from 1969 to 1977.

Once the oil came online, Norway began running persistent trade surpluses, which were used to repay its original borrowing and to save for the day when the petroleum reserves are exhausted. We can see that, since 1978, Norway has annually run trade surpluses that average 6 percent of GDP. There have been some fluctuations in the size of these trade surpluses because of changes in the price of oil and the Norwegian business cycle. (See *The Terms of Trade* and *A Theory of International Business Cycles*, for a further discussion of these two forms of trade-balance fluctuations.)

FIGURE 1

Norwegian Investment and Trade Balance



*Data are from Statistics Norway.

The Norway story is an example of a large productive opportunity, but there are also smaller changes in productivity that may be important over the business cycle. For instance, in the 1990s, the information technology and telecommunication sectors in the U.S. developed many new technologies.

These productive opportunities affect both the private and public sectors. For instance, in Norway, the state had sovereignty over the exploration and production of sub-sea natural resources, and much of the development was done within state-owned enterprises. To take advantage of productive opportunities, firms and governments need to invest in machines and infrastructure. This can be done by borrowing capital from the rest of the world. Foreign investors are happy to make these loans, even if it means less investment in the investors' own countries, because the capital is more productive overseas and thus earns a higher return.[6] This increase in investment increases the productive capacity of an economy in subsequent periods and keeps the economy going strong into the future.

Smoothing Consumption. Another important idea for understanding the dynamics of the current account is consumption smoothing: the notion that people would prefer a relatively stable consumption pattern to a variable one.

[6] Some international lending is done by foreign governments. In the case of the U.S., recently these foreign investments have tended to be in relatively low-interest bearing, highly liquid assets. Arguably, the liquidity these investments provide is highly valued by foreign governments and compensates for the relatively low returns.

The Terms of Trade

There is another important determinant of the trade balance: the terms of trade. This is the price of imports relative to the price of exports.

Over time, the terms of trade may vary because the cost of producing imports or exports changes or the demand for these goods changes. Quite often, we see that when the terms of trade worsen, so that imports become more expensive, the trade balance declines. This often occurs because, despite the relatively high price of imports, we do not cut back much on our purchase of these imports. If we hold quantities roughly constant, and the terms of trade increase, the trade balance will decrease. This has been an important source of fluctuations in the trade balance over time.

Oil is one good that the U.S imports a lot of, and the demand for oil is fairly slow to respond to price changes. This slow response occurs in part because oil is an important input into production in industries such as transportation and energy and there are few substitutes for oil. These industries have made large investments in airplanes, trucks, and power plants whose energy efficiency is largely fixed.

Therefore, just as it is costly for the owner of a gas-guzzling SUV to sell that car and buy a smaller, more energy-efficient car, it is difficult for an industry to change its use of oil in the short run. Thus, an increase in the price of oil tends to raise the value of imports almost one-for-one and lowers the trade balance by the same amount in the short run. In the long run, after firms and individuals invest in new, energy-efficient technologies, the demand for oil declines, so imports decline and the trade balance increases.

The figure bears this out. It shows the trade balance in petroleum and the price of petroleum imports deflated by the price of exports. Notice that these variables tend to move in opposite directions. In particular, notice that the large increases in oil prices in 1973 and 1979 were associated with large decreases in the trade balance. More recently, the rising price of oil has contributed to the worsening trade balance.*

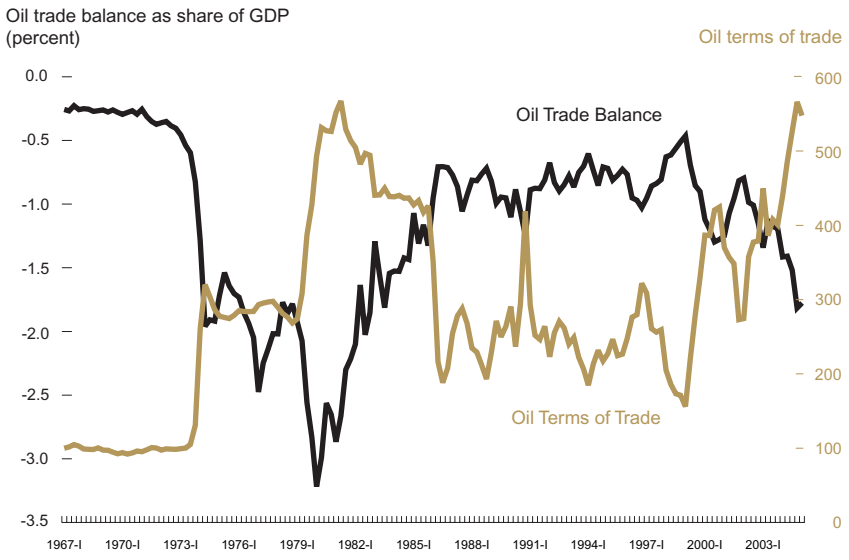
If we return to the case of Norway, which is a large exporter of oil, we see that changes in the price of oil affect its trade balance in the exact opposite way. From Figure 1 in the text, we can see that Norway's trade balance has increased substantially along with the increase in oil prices since 1998. Similarly, the big drop in Norway's trade balance in 1985 coincided with a drop in the price of oil.

More generally, the terms of trade can matter for other goods, such as certain industrial supplies, agricultural products, and capital equipment, for which demand is relatively insensitive to changes in price in the short run.

* David Backus and Mario Crucini have shown that the market for oil can help to explain some of the behavior of the U.S. trade balance in the 1970s and 1980s.

FIGURE

U.S. Oil Trade Balance and Oil Terms of Trade



* Data are from the Bureau of Economic Analysis.

A Theory of International Business Cycles

Economists David Backus, Patrick Kehoe, and Nobel Prize recipient Finn Kydland have shown that an international real-business-cycle model can account for the properties of business cycles in the G7 countries.* This is a model that includes both consumption smoothing and production shifting.

In their view, the efficiency with which countries use capital and labor varies over time. These changes in productivity are generally not synchronized across countries, so that productivity may differ internationally. When there are productivity differences across countries, it makes sense to reduce investment in those countries where productivity is relatively low while increasing investment in the country where productivity is relatively high.

Initially, this requires the trade balance of the high productivity country to decline. This effectively shifts production to the more productive location. The larger the differences in international productivity, the greater the incentives to shift production toward the more productive countries and the larger the trade deficit.

Because investment raises a country's stock of capital, these capital flows tend to raise future output and lead to sustained increases in output. Foreign investors are happy to make these loans because they can get a better return by lending to firms in the country with more productive opportunities. Notice that by borrowing from abroad, the more productive country does not have to sacrifice consumption to invest in these opportunities, allowing it to keep its consumption smoother.

Economist Martin Boileau has shown that the effect of production shifting is particularly important, since a large part of trade consists of capital and durable goods, such as industrial machines, aircraft, and automobiles. Thus, periods when investment is high are also periods in which imports will tend to be high. Moreover, if investment is low in the rest of the world, a country will tend to run a trade deficit.

* For a primer on the real-business-cycle view of the macroeconomy, see the article by Satyajit Chatterjee.

A simple example should make this clear. Suppose you could choose between consuming $50,000 this year and $100,000 the following year or consuming $75,000 each year for the next two years. Most people would prefer the second plan, that is, a smooth pattern of consumption.

Now, suppose your income varies, as in the first plan. These types of income variations tend to occur because some workers receive bonuses and others may temporarily lose their jobs. If households can't save or borrow, their consumption will follow their income and will vary over time. Suppose one can borrow at a zero interest rate. Then by borrowing $25,000 in the first year and repaying it in the second year, a household can even out this variation in income to achieve a smooth pattern of consumption.

Now imagine we restrict households to borrowing and lending from households in the same country. To smooth out consumption, we need to find someone from the same country willing to lend $25,000 in the first year and be repaid in the second year. Financial markets do this for us. They channel savings from those households with temporarily high incomes to those households with temporarily low incomes. This lets us smooth out the household-specific fluctuations in individual income.

But what happens when everyone in the same country experiences the same shock to their income, as in a recession? For instance, suppose average income in a country is $50,000 in year 1 and $100,000 in year 2. If we restrict borrowing and lending with foreign countries, consumption will vary along with income. If we allow international borrowing and lending, consumption smoothing will lead to a $25,000 current account deficit in year 1 and a $25,000 current account surplus in year 2. So countries can use international financial markets to smooth out countrywide fluctuations in income, such as those that occur over the business cycle.[7]

With these ideas in mind, let's take a look at the U.S. current account over time.

[7] Similarly, fluctuations in government expenditures can be smoothed out by borrowing internationally. When government expenditures exceed tax revenue, the resulting government fiscal deficit is financed by borrowing. Whether this borrowing results in a current account deficit depends on the private savings response of a country's citizens. It is often claimed that fiscal deficits go hand-in-hand with trade deficits. For the U.S., there are certainly periods with these twin deficits, but there are also periods of government surpluses and trade deficits. See the article by Michele Cavallo for a summary of the links between fiscal and current account deficits.

A LONG-TERM VIEW OF THE U.S. CURRENT ACCOUNT

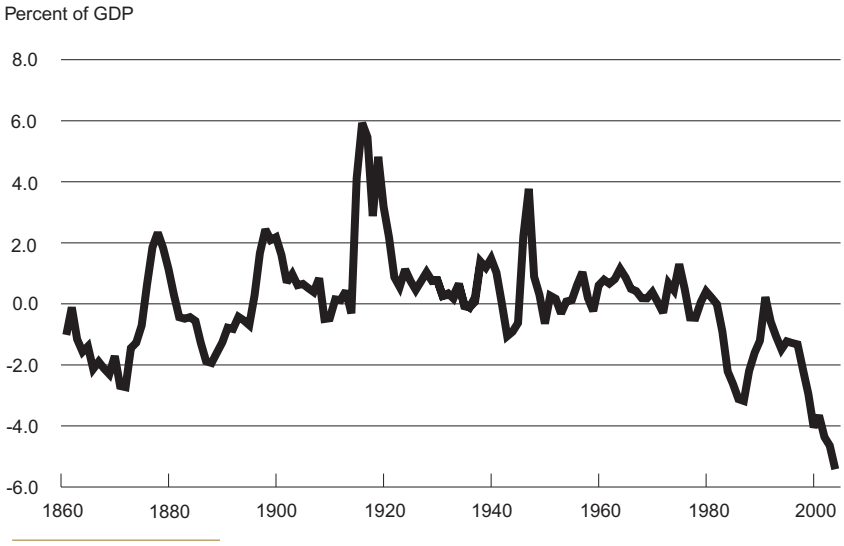
It's not possible to describe in detail all the ups and downs of the current account, so let's focus on some particular periods and events that are important in U.S. history (Figure 2).[8]

First, let's consider the second-half of the 19th century. In this period, the U.S. was still a relatively small economy that was poised for major economic expansion. The country experienced substantial immigration, and there was a great migration westward. The American railroad network was built, and municipalities invested in infrastructure such as ports, roads, and municipal sewage.[9] During this period, the U.S. ran current account deficits each year from 1862 to 1876 and 1882 to 1896. Over these two periods, the average annual current account deficit was 1.5 percent of GDP. Investors in London invested heavily in these enterprises, since the returns to these projects exceeded those to be found in England.[10] These trade deficits helped finance the American economic expansion and were followed by a long period of current account surpluses.

Second, let's consider the periods around the two world wars, during which the U.S. ran large and persistent current account surpluses. From 1915 to 1921, the U.S. annually ran current account surpluses, on average, of 4.1 percent of GDP. These loans financed both the war effort of its allies as well as their subsequent postwar reconstruction.

FIGURE 2

U.S. Current Account



*The U.S. current account is constructed from multiple sources. The period from 1929 is based on data from the Bureau of Economic Analysis. The data from 1869 to 1929 are from the study by Maurice Obstfeld and Matthew Jones. The current account data from 1860 to 1869 are also from Obstfeld and Jones. The U.S. data from 1860 to 1869 are only an approximation.

The dynamics of the U.S. current account around World War II are similar to those in the period around World War I. In the buildup to the second world war and before the U.S. entered the war, from 1938 to 1941, the U.S. ran annual current account surpluses of 1.3 percent of GDP. Much of this lending financed the United Kingdom's war effort. From the U.S. perspective, this was a very good investment. Once the U.S. entered the war, it financed its war effort in part by borrowing from its trading partners. Thus, from 1942 to 1945, the U.S. ran small current account deficits.

Following World War II, the U.S. ran some very large trade surpluses from 1946 to 1949. A large amount of both lending and foreign aid was directed toward Europe and Japan to help them rebuild. Given the lack of productive capital in place in these countries and their relatively highly skilled work forces, the goods from the U.S. were effectively used to build up the productive capacity of these countries. These surpluses were very important for rebuilding the European nations and Japan following WWII.

Finally, a careful eye may notice that the behavior of the current account since 1980 appears to have a lot in common with the period from 1860 to 1914. In both periods, there are large, sustained swings in the current account. In contrast, in the interwar and postwar periods, fluctuations tended to be small and tended toward balanced trade. These differences across eras are a sign of the uneven progress toward the current world of unrestricted capital flows across borders.

International financial flows were much greater in the period before World War I because there were very few restrictions on them. Following WWI, a number of restrictions were

[8] The U.S. GDP data from 1860 to 1869 are only an approximation, assuming a 2 percent annual growth rate.

[9] From the conclusion of the American Civil War, the American railroad system expanded from 35,021 miles in 1865 to 74,096 miles in 1875 and 128,320 miles in 1885. (*Statistical Abstract of the United States*: Bicentennial edition, 1975)

[10] See the book by Kevin O'Rourke and Jeffrey Williamson, p. 211.

placed on the mobility of international capital, and they were further increased during the Great Depression (1929 to 1939). The postwar financial system maintained these restrictions, which were only gradually loosened in the 1970s. Thus, while today's current account deficits are quite large, the comparison with the postwar period, when capital flows were partially restricted, exaggerates their magnitude.

COMMON FEATURES OF RECENT TRADE DYNAMICS ACROSS COUNTRIES

Over long periods of American history, we've seen that production shifting and consumption smoothing have mattered for the trade balance. Now, we want to see if the same is true over the business cycle and for other countries. We can do this by studying how the trade balance and other key measures of economic activity vary over time for a group of industrialized countries.

First, we can look at some properties of the trade balance, output, consumption, and investment for the G7 countries[11] in the period 1980 to 2002 (Table 2).[12] From the table we see that certain features of the business cycle are quite similar across countries.[13] From the first two columns, we see that fluctuations in consumption are generally smaller than fluctuations in output, while fluctuations in investment are much larger than fluctuations in output. The second common feature is that both consumption and investment are highly correlated with output. What this means is that when output is growing fast, as in an economic expansion, both investment and consumption are also growing. Since investment is more volatile than output, investment grows much faster than output. From our earlier accounting, this implies that the trade balance should be declining. In fact, from the fifth column we see that trade balances are negatively correlated with output, so that during economic expansions a country's trade balance tends to decline.

If we put these facts together, a common picture of business cycles emerges. When countries are expanding, they tend to be investing quite a bit. Some of the extra production not consumed is invested, but a lot of the resources for investment come from outside the country, so the country runs a trade deficit. Borrowing abroad to increase investment contributes to future increases in GDP without requiring cuts in current consumption.

A CONTRARIAN VIEW OF THE TRADE DEFICIT

The view developed here is that the trade balance reflects the optimal response of individuals, firms, investors, and governments to changes in productive opportunities and needs throughout the world. However, an alternative view argues that trade deficits may result from individuals borrowing to spend beyond their means. For instance, individuals may not fully take into account the size of their future expenditures, such as those from government-sponsored old-age and medical benefit programs, and not save enough today. Proponents of this "overspending" view argue that closing the current U.S. trade deficit will require some policy actions to increase savings in the U.S. Absent these policy changes, researchers expect that closing the trade deficit may involve some dramatic events. For instance, economists Maurice Obstfeld and Kenneth Rogoff argue that restoring trade balance will require a large depreciation of the U.S. dollar. Similarly, economists Nouriel Roubini and Brad Setser have argued that financing the international debt incurred following these persistent trade deficits will require an increase in interest rates that will discourage investment and economic growth.

The properties of the trade balance, evident over the last almost century and a half in the U.S. as well as over the business cycle among industrialized countries, provide ample

The trade balance reflects the optimal response of individuals, firms, investors, and governments to changes in productive opportunities and needs throughout the world.

[11] The Group of 7 is a coalition of the major industrial nations: Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States.

[12] Nobel laureate Robert Lucas has argued that business cycles can be thought of as deviations from a trend around which variables tend to move together. Thus, we want to focus on the medium-term fluctuations in economic activity. These are the fluctuations that last from a year and a half to eight years. We don't think of very short-run changes in the economic environment, such as those due to really bad weather, as being part of the business cycle. We also don't think of the really long-term changes in the economy, such as those arising from increased female participation in the labor force, as being part of the business cycle. These are more related to the trend component of the economy. All of the statistics reported in Table 2 are based on these medium-term fluctuations.

[13] Economists David Backus and Patrick Kehoe find similar properties of the data for a broader group of countries over different periods.

TABLE 2

Business Cycle Statistics*

	Standard deviation relative to GDP		Correlation with GDP		
	Consumption	*Investment*	*Consumption*	*Investment*	*Trade Balance*
Canada	0.80	2.84	0.88	0.70	-0.15
France	0.92	3.14	0.74	0.89	-0.43
Germany	0.88	2.32	0.66	0.78	-0.16
Italy	1.32	3.28	0.66	0.76	-0.37
Japan	0.67	2.54	0.64	0.91	-0.48
United Kingdom	1.17	3.34	0.86	0.74	-0.52
United States	0.75	2.75	0.85	0.94	-0.52
Mean - G7	**0.93**	**2.89**	**0.75**	**0.82**	**-0.38**

* Consumption, investment, GDP, and trade data are from the OECD's Quarterly National Accounts data set, from 1980:Q1 to 2002:Q2. The Hodrick-Prescott filter was used to remove the long-term trends in each data series.

evidence of substantial production shifting and consumption smoothing and cast doubt on this overspending view.

SUMMARY

The current U.S. trade deficit appears unusually large when compared with that in the postwar period. But in the postwar period, the mobility of capital was fairly limited. In comparison to an earlier era of fairly free mobility of international capital, the current U.S. trade deficits don't look so unusual.

Trade deficits tend to be a sign of good things to come. Countries tend to run trade deficits when they are borrowing to finance productive investment opportunities. This is a way to shift world production toward more productive locations. This international borrowing and lending has played a prominent role in some of the most significant events in U.S. history — from the western expansion after the Civil War to the financing of the two world wars. Over the business cycle, we also see that trade deficits are often associated with strong and continued economic growth and are a sign of good things to come.

REFERENCES

Backus, David, and Mario Crucini. "Oil Prices and the Terms of Trade," *Journal of International Economics* 50 (2000), pp. 185-213.

Backus, David, and Patrick Kehoe. "International Evidence on the Historical Properties of Business Cycles," *American Economic Review,* 82, 4 (1992), pp. 864-88.

Backus, David, Patrick Kehoe, and Finn Kydland. "International Business Cycles: Theory and Evidence," in T. Cooley (ed.), *Frontiers of Business Cycle Research*. Princeton: Princeton University Press (1995).

Boileau, Martin. "Trade in Capital Goods and the Volatility of Net Exports and the Terms of Trade," *Journal of International Economics* (1999), pp. 347-65.

Cavallo, Michele. "Understanding the Twin Deficits: New Approaches, New Results," Federal Reserve Bank of San Francisco *Economic Letter*, Number 2005-16 (July 22, 2005).

Chatterjee, Satyajit. "Real Business Cycles: A Legacy of Countercyclical Policies?" Federal Reserve Bank of Philadelphia *Business Review* (January/ February 1999).

Gourinchas, Pierre-Olivier, and Helene Rey. "International Financial Adjustment," National Bureau of Economic Research Working Paper 11155 (2005).

Hodrick, Robert J., and Edward C. Prescott. "Postwar U.S. Business Cycles: An Empirical Investigation," *Journal of Money, Credit, and Banking* 29:1 (1997), pp. 1-16.

Leduc, Sylvain. "Globalization Is Weaker Than You Think," Federal Reserve Bank of Philadelphia *Business Review* (Second Quarter 2005).

Obstfeld, Maurice, and Matthew T. Jones. "Saving, Investment, and Gold: A Reassessment of Historical Current Account Data" in G. Calvo, R. Dornbusch, and M. Obstfeld (eds.), *Money, Capital Mobility, and Trade: Essays in Honor of Robert Mundell*, Cambridge, MA: MIT Press (2001).

Obstfeld, Maurice, and Kenneth S. Rogoff. "Global Current Account Imbalances and Exchange Rate Adjustments," Brookings Papers on Economic Activity, 1 (2005), pp. 67-146.

O'Rourke, Kevin H., and Jeffrey G. Williamson. *Globalization and History: The Evolution of a Nineteenth-Century Atlantic Economy*. Cambridge, MA: MIT Press (1999).

Roubini, Nouriel, and Brad Setser. "The U.S. as a Net Debtor: The Sustainability of the U.S. External Balance," mimeo, Stern School of Business, NYU (September 2004).

Sill, Keith. "The Gains from International Risk-Sharing," Federal Reserve Bank of Philadelphia *Business Review* (Third Quarter 2001).