

April 1987

INTERNATIONAL
TRADEThe U.S. Trade Deficit:
Causes and Policy
Options for Solutions*Released*

RESTRICTED—Not to be released outside the General Accounting Office except on the basis of specific approval by the Office of Congressional Relations.





United States
General Accounting Office
Washington, D.C. 20548

Comptroller General
of the United States

B-226367

April 28, 1987

The Honorable Robert Kasten
United States Senate

The Honorable William Frenzel
House of Representatives

This report responds to your request that we examine the causes of the increased U.S. trade deficit and discuss ways to reduce the deficit.

We found that although foreign trade barriers and a loss of U.S. competitiveness are ongoing problems for U.S. trade, these two factors were not major contributors to the increase in the U.S. trade deficit in the 1980s. Rather, the major causes of the increased trade deficit were changes in U.S. and foreign macroeconomic policies that led to a strong U.S. dollar and relatively strong U.S. economic growth. It is essential that the current mix of U.S. macroeconomic policies be changed in order to lower the U.S. trade deficit. In particular, the U.S. budget deficit needs to be reduced. Efforts to remove foreign trade barriers and increase U.S. productivity should continue, although only a modest contribution to lowering the trade deficit should be expected from such efforts.

Because of the importance of the issues addressed in this report and the wide interest in these matters, we plan to distribute copies of this report to each member of Congress, appropriate congressional committees, and other interested parties. However, as requested by your offices, unless you publicly announce the contents of this report earlier, we will not distribute the report until 10 days after its issue date.

A handwritten signature in cursive script that reads "Charles A. Bowsher".

Charles A. Bowsher
Comptroller General

Executive Summary

Purpose

The sharp increase in the U.S. trade deficit since 1980 has focused an enormous amount of attention on U.S. trade problems. Many factors have been described as being the causes of the increased deficit, and many possible solutions have been proposed for eliminating it. This report presents GAO's views of these issues and summarizes the consensus of experts.

Background

The U.S. trade deficit has increased in every year since 1980. It averaged \$30 billion from 1980 to 1982, but from 1983 to 1985, the deficit averaged \$101 billion; in 1986 it reached \$148 billion.

Results in Brief

In examining the causes of the increased U.S. trade deficit, GAO found that:

- Foreign trade barriers and a loss of U.S. competitiveness are ongoing problems for U.S. trade. They have attracted a good deal of attention because examples are so visible to U.S. businessmen competing with foreign products. Foreign trade barriers distort the composition of U.S. trade with foreign countries, imposing serious costs on some U.S. producers, while a loss of U.S. competitiveness could cause a decline in the U.S. standard of living. Although these two factors clearly have an effect on trade, they do not account for the sharp rise in the trade deficit since 1980 because they have changed little in recent years.
- The U.S. trade balance is fundamentally determined by U.S. fiscal and monetary policies and those of its trading partners. The primary channels by which these macroeconomic policy changes led to the increased trade deficit were a sharp increase in the value of the dollar and relatively strong U.S. economic growth.

In examining the policy options for reducing the trade deficit, GAO found that:

- The trade deficit is expected to decline somewhat in 1987 because of a substantial fall in the value of the dollar since 1985. However, even though the dollar's value has fallen back to its 1980 level, it may have to fall even further if the trade deficit is to be reduced significantly. Such a decline in the dollar may be needed to displace foreign products that became firmly entrenched in international markets when the dollar was strong.

-
- Changing the current mix of U.S. macroeconomic policies is essential to lowering the U.S. trade deficit. Gradually reducing the U.S. budget deficit should help to lower interest rates and the value of the dollar. While monetary policy must be governed by a variety of considerations including debt management and inflation, expanding the growth rate of the money stock could be used as needed to help offset the contractionary effects of a smaller budget deficit on the U.S. economy.
 - Changes in the macroeconomic policies of foreign countries could also help to lower the U.S. trade deficit.
-

Principal Findings

Causes of the Increased U.S. Trade Deficit

Changes in macroeconomic policies led to the increase in the U.S. trade deficit:

- U.S. monetary policy concentrated on reducing inflation, which produced historically high real interest rates and led to a stronger U.S. dollar.
- U.S. tax reductions and increased spending increased the U.S. budget deficit and stimulated U.S. economic growth. As a result, since 1981 U.S. private saving has been insufficient to finance private investment and the unusually large U.S. budget deficits. The U.S. need to borrow foreign funds drove up the value of the dollar.
- Reductions in the government budget deficits of many industrial countries and debt-burdened Latin American countries slowed economic growth abroad, which held down foreign demand for U.S. exports.

The changes in macroeconomic policies worked through the economy in a number of ways to cause the increased trade deficit. Experts estimate that the strong dollar accounted for between 50 percent and 60 percent of the increase in the U.S. trade deficit since 1980, the relatively strong U.S. economy for between 15 and 25 percent, the Latin American debt problem for between 10 and 20 percent, and other factors for about 5 percent.

The increase in the value of the dollar caused prices of U.S. goods to rise relative to the prices of foreign goods, which caused U.S. imports to rise and U.S. exports to fall. The relatively strong U.S. economic recovery caused U.S. consumption of all goods, including imports, to rise whereas languishing foreign economies curtailed U.S. exports. Latin American

countries reduced their imports because they needed to achieve trade surpluses to service their international debt.

Foreign trade barriers reduce the benefits that the United States derives from international trade; the loss is especially great if foreign barriers protect against those industries in which the relative advantage of U.S. producers is greatest. However, because most foreign barriers have been in place for many years, they cannot account for the staggering increase in the U.S. trade deficit since 1980.

The competitiveness of a nation is measured by its ability to sell its products in world markets while increasing its standard of living. Competitiveness changes gradually in response to changes in relative productivity.

U.S. competitiveness did not suddenly collapse in the early 1980s. The relative position of the U.S. economy compared to the rest of the world has been declining over the whole post World War II era as war-devastated economies were rebuilt and new countries developed economically. However, the rapid increase in the value of the dollar exacerbated competitiveness problems by pricing U.S. products out of many markets. During the period of the overvalued dollar, foreign companies entered new markets, establishing distribution networks and brand recognition that will make it more difficult for U.S. firms to regain lost markets. In addition, foreign competitors have been strengthened by increased cash flow and profits.

Policy Options for Reducing the Trade Deficit

Most experts believe that a lower U.S. budget deficit would help to reduce U.S. interest rates, thus lowering the attractiveness of U.S. investments and reducing the value of the dollar. A weaker dollar would eventually mean a lower trade deficit, although it will take several years before the full effect is felt. U.S. firms could further contribute to a lower trade deficit by aggressively trying to increase sales in markets from which they have recently been priced out by the overvalued dollar. This could include traditional markets that might now be recaptured or new markets in which U.S. goods may now be offered at competitive prices.

Reducing the budget deficit too rapidly, however, could cause a recession. The budget deficit needs to be reduced gradually, at about the same rate as the trade deficit declines, so that the contractionary effects of a reduction in the budget deficit are to some degree offset by the

expansionary effects of the reduced trade deficit. The fall in the value of the dollar since 1985 should help to lower the trade deficit in 1987, reducing the risk that a smaller budget deficit would lead to a recession.

The weaker dollar may generate inflationary pressures through its effect on import prices. If this does not occur, the Federal Reserve could help to offset the contractionary effects of a reduced budget deficit by increasing the growth rate of the money stock, thus lowering interest rates. However, trying to coordinate these major changes in macroeconomic policies without causing either a recession or renewed inflation is difficult. The timing and severity of the economic effects of the changes are difficult to forecast accurately.

Restrictive economic policies in industrial countries such as Japan and Germany helped to cause the increased U.S. trade deficit. If these countries were to adopt more expansionary economic policies, the U.S. trade deficit would probably fall somewhat. Similarly, if countries such as Taiwan, which are keeping their currencies undervalued and running large trade surpluses, were to allow the values of their currencies to rise, the U.S. trade deficit would probably fall.

U.S. efforts to open foreign markets and to seek the removal of foreign trade barriers should continue. While the success of these efforts will not solve the U.S. trade deficit by themselves, they will make a contribution. Furthermore it is becoming increasingly difficult to maintain the openness of the U.S. economy in the face of both the concern over the U.S. trade deficit and the irritation resulting from foreign trade barriers that restrict U.S. exports.

U.S. industries must also continue efforts to improve productivity and product quality. The opportunities presented by a weaker dollar must be complemented by private sector initiatives to improve competitiveness.

Contents

Executive Summary		2
<hr/>		
Chapter 1		8
Background	Concerns About the Trade Deficit	8
	Objectives, Scope, and Methodology	9
<hr/>		
Chapter 2		12
Fundamental Causes of the Trade Deficit	Macroeconomic Factors Determine Trade Balance	12
	Saving-Investment Imbalance	15
<hr/>		
Chapter 3		20
Proximate Causes of the Trade Deficit	Strong Dollar	21
	Economic Recovery	24
	Latin American Debt	26
	Foreign Trade Barriers	28
	U.S. Competitiveness	29
	Conclusion	34
<hr/>		
Chapter 4		36
Other Effects of the Fundamental Causes	Negative Effects	36
	Positive Effects	37
	Effect of U.S. Debt Position	38
<hr/>		
Chapter 5		42
Policy Options for Reducing the Trade Deficit	U.S. Actions	42
	Foreign Actions	45
<hr/>		
Bibliography		48

Tables

Table 2.1: U.S. Saving-Investment Imbalance	15
Table 2.2: Saving and Investment as a Percentage of GNP	18
Table 3.1: Real Value of the Dollar	22
Table 3.2: U.S. Trade with Western Europe	25
Table 3.3: U.S. Trade with Japan	26
Table 3.4: U.S. Trade with Latin America	27
Table 3.5: U.S. and Foreign Unit Labor Costs	33

Figures

Figure 2.1: Real Interest Rates	13
Figure 2.2: U.S. Saving-Investment Imbalance	16
Figure 2.3: U.S. Budget and Trade Deficits	17
Figure 3.1: Real Value of the Dollar	21
Figure 4.1: U.S. International Investment Position	39

Abbreviations

GNP	Gross National Product
LDC	Less Developed Country

Background

The sharp increase in the U.S. trade deficit since 1980 has evoked considerable concern among businessmen, workers, and policy makers. The response has been a debate over its causes that has featured widely divergent views within both public and private sectors. Clearly, before appropriate policies can be pursued to address the problem, the fundamental forces causing the trade deficit must be clarified and understood.¹

Determining the causes of the increased trade deficit, however, is difficult. The economic relationships that underlie the trade deficit are complex, and the theories used to explain these relationships cannot be rigorously tested under laboratory conditions. Many theories have been developed to explain the increase in the trade deficit; some have gained widespread support and become "accepted wisdom." Others are still being discussed among experts, but have not yet been widely accepted.

This report presents GAO's views of the trade deficit and summarizes the consensus of experts. The report also points out those areas where the experts have not reached a consensus.

Concerns About the Trade Deficit

The U.S. trade deficit has increased in every year since 1980.² It averaged \$30 billion from 1980 to 1982, but from 1983 to 1985 the deficit averaged \$101 billion; in 1986 it reached \$148 billion.

The sharp increase in the U.S. trade deficit has raised concern about the effects of the deficit on the U.S. economy. Many people believe that the rising trade deficit indicates that U.S. products have lost competitiveness in the world marketplace and that, as a result, the United States economy is losing high-paying manufacturing jobs and replacing them with low-paying service jobs. Others worry about the damage done to the many U.S. export and import-sensitive industries that have lost a large number of jobs. Still others are concerned about the long-term

¹Two recent studies, The U.S. Trade Deficit: Causes, Consequences and Cures, Craig K. Elwell and Alfred Reifman, Congressional Research Service, July 14, 1986 and United States Trade Performance in 1985 and Outlook, International Trade Administration, U.S. Department of Commerce, October 1986, contain excellent discussions of the underlying causes of the U.S. trade deficit.

²In this report, the term "trade" deficit will be used to refer to both merchandise trade and current account deficits. The former consists of trade in physical goods, such as manufactured products while the latter consists of trade in both physical goods and services (shipping, insurance, interest income, etc.). The two were roughly equal in 1985. The merchandise trade deficit was \$124 billion and the current account deficit was \$118 billion. Merchandise trade dominates movements in the current account balance and is an easier concept to understand even though the current account balance is the more appropriate concept for most economic questions.

effects of the enormous trade deficits that have made the United States the largest debtor country in the world.

Objectives, Scope, and Methodology

Senator Robert Kasten and Representative William Frenzel requested that we examine five major perceived causes of the U.S. trade deficit, assess their relative importance, and determine the feasibility of actions to address them. The requestors identified the major causes of the trade deficit as:

1. the strong dollar,
2. the relatively strong U.S. economy,
3. the debt problems of less developed countries (LDCs),
4. foreign trade barriers, and
5. loss of U.S. competitiveness.

Senator Kasten and Representative Frenzel are members of the Subcommittee on Foreign Trade Practices and Negotiations of the President's Export Council. We briefed the Subcommittee on the scope and preliminary findings of our review on November 5, 1986.

The requesters recognized that this might be an extensive project, but asked for a report in early 1987. In discussions with their representatives, we cautioned that original work would not be possible within the time frame that they envisioned and agreed to provide a report that would primarily summarize and assess existing work.

We reviewed available articles in professional journals and government and academic publications that examined the causes of the trade deficit. In addition, we sponsored a "Symposium on the Causes of the U.S. Trade Deficit" on December 11, 1986 to discuss the many complex issues involved in the current debate on the trade deficit. Attending this symposium were leading academic and private sector experts who have studied the issues extensively. The conclusions reached by the symposium are reflected in our review. Chairman Richard Cooper's summary of the symposium is contained in a companion paper to this report. The other members of the symposium were William Branson (Princeton University), Rimmer de Vries (Morgan Guaranty Trust Company), Jeffrey Frankel (University of California at Berkeley), Walter Joelson (General Electric), Robert Lawrence (Brookings Institution), Lee Morgan (Caterpillar Tractor and President's Export Council), and Marina N. Whitman (General Motors).

Chapter 1
Background

Private sector experts who have done research in this area commented on a draft of this report; their comments where appropriate have been incorporated. Our work was conducted in Washington, D.C , between September 1986 and March 1987

Fundamental Causes of the Trade Deficit

The trade balance of the United States is fundamentally determined by U.S. macroeconomic policies and those of its trading partners. U.S. economic policies in the 1980s led to a strong U.S. dollar and a relatively strong U.S. economy. Meanwhile, foreign economic policies led to sluggish economic growth abroad. The increase in the value of the dollar caused prices of imported goods in the United States to fall relative to prices of U.S. goods and prices of U.S. exports to rise relative to prices of foreign goods. These relative price changes led to increased U.S. demand for imports and to reduced foreign demand for U.S. exports. At the same time, the relatively strong U.S. economy caused consumption of all goods, including imports, to increase, whereas consumption in weaker foreign economies languished, which reduced the demand for U.S. exports even further.

Corresponding exactly to the increased U.S. trade deficit was an increase in U.S. borrowing from abroad that, in effect, financed the increased trade deficit. U.S. macroeconomic policies led to a sharp increase in the U.S. budget deficit and an increase in investment that caused the demand for borrowed funds in the United States to far exceed the increase in U.S. saving. Meanwhile, foreign economic policies led to reduced foreign budget deficits and poor investment opportunities that created an excess of saving abroad. This excess foreign saving was attracted into the United States by the relatively high real U.S. interest rates and U.S. investment opportunities.¹

The trade deficit cannot be eliminated unless U.S. and foreign macroeconomic policies permit exchange rates and economic growth rates to reach levels that would allow the United States to achieve a balance between production and consumption. Then the United States would not have to depend on imports to make up the difference between what it produces and what it consumes.

Macroeconomic Factors Determine Trade Balance

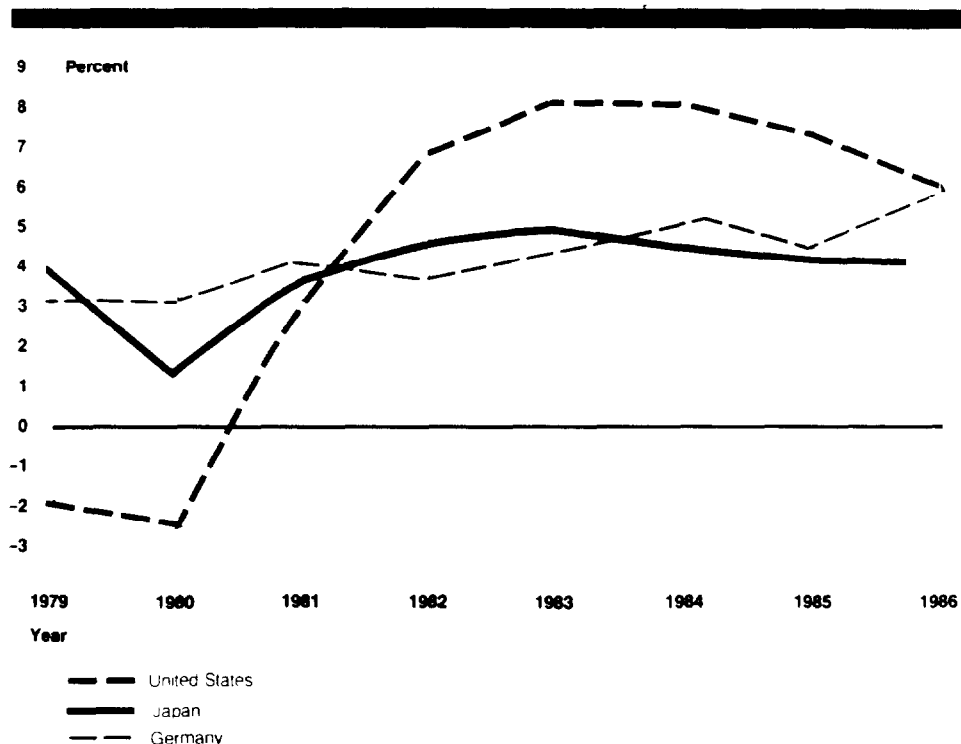
The U.S. trade deficit is not an isolated problem that can be adequately solved by erecting trade barriers or retaliating against foreign competitors. Macroeconomic policies affect the economic performances of all countries and determine the size and direction of capital flows between countries. Net capital flows, in turn, mirror a country's trade balance. The net inflow of foreign capital into the United States equals the amount of foreign saving required to finance the U.S. trade deficit.

¹ Real interest rates are market interest rates minus the inflation rate

Monetary Policy

Federal Reserve policies in late 1979 and the early 1980s helped to increase the U.S. trade deficit by raising the value of the dollar. In late 1979, the Federal Reserve tightened monetary policy in an effort to reduce the double-digit inflation that marked the late 1970s. The short-term effect of this tight monetary policy was an increase in real interest rates that temporarily increased the attractiveness of U.S. securities (See figure 2.1). In the long term, the change in Federal Reserve policy caused a sustained increase in the confidence of investors worldwide that the value of the dollar would not be soon eroded by a return to rising inflation in the United States. Even though foreign central banks tightened monetary policy abroad in the early 1980s, real interest rates abroad generally did not rise as much as in the United States, and the dollar stayed strong.

Figure 2.1: Real Interest Rates



Source: Computed using consumer price indexes and long-term government bond yields obtained from the International Monetary Fund's International Financial Statistics.

In 1982, after inflation had been reduced substantially, the Federal Reserve loosened its monetary policy somewhat. The increase in the growth rate of the money stock helped to spark the U.S. economic recovery. Although the Federal Reserve loosened its monetary policy,

the widespread belief that the Federal Reserve would not allow inflation to reignite and erode the purchasing power of investors holding dollar-denominated assets helped to keep the dollar strong.

Fiscal Policy

In the early 1980s, the United States adopted an expansionary fiscal policy that included broad tax cuts that encouraged economic growth and spurred both investment and consumption of all goods, including imports. Because government expenditures continued to grow, the U.S. budget deficit grew rapidly. The increases in the budget deficit and in investment expenditures far exceeded the increase in U.S. saving needed to finance them. The difference was made up by a net inflow of foreign saving (capital), which was attracted by relatively high U.S. real interest rates.

The attractiveness of high real U.S. interest rates increased the demand for U.S. dollars needed to purchase U.S. interest-paying assets and caused the value of the dollar to rise. The net capital inflow also kept the U.S. economic recovery strong by keeping U.S. interest rates lower than they would have been without the inflow, given the record high U.S. budget deficits and strong investment demand. The combination of a strong dollar and a relatively strong U.S. economic recovery helped to push the U.S. trade deficit to record levels.²

Foreign Macroeconomic Policies

Cutbacks in the government budget deficits in Japan and many European countries in the 1980s helped to keep foreign economic growth relatively low, which held down the demand for U.S. exported goods. In addition, poor investment opportunities abroad kept investment low, which when combined with the reduced budget deficits, increased the amount of excess saving in these countries. The surplus of saving abroad helped to keep real interest rates lower abroad than they were in the United States, which encouraged foreign investors to invest in U.S. assets and helped to strengthen the dollar. The United States was able to finance its trade deficit by borrowing part of the excess of foreign saving. If not for this excess saving abroad and resulting capital flows

²The current period of U.S. trade deficits and saving shortages is in contrast with the post-World War II era, when the United States ran trade surpluses and had saving surpluses. In the postwar era, the spread of U.S. technology abroad to rebuild war-ravaged countries created a strong demand for investment in these countries. The result was that returns to investment were higher abroad than in the United States, which led to a large net outflow of capital to these countries. By the early 1970s, the other industrial countries had substantially rebuilt their capital stock and were able to reduce their borrowing from the United States. Thus, the United States ceased to be a major net exporter of capital, and the trade surplus was eliminated.

into the United States, U.S. interest rates would have had to have risen sharply—by 5 percentage points or more according to one estimate—to reduce U.S. investment to the level consistent with the budget deficit and private saving.³

The political and economic stability of the United States relative to other parts of the world caused investors to view the United States as a “safe haven” and to prefer dollar-denominated assets, which also helped to increase the value of the dollar. In particular, investors hesitated to expand lending to many debt-ridden LDCs when these countries experienced difficulties in servicing their existing debt.

Saving-Investment Imbalance

Since 1981, U.S. private saving has been insufficient to finance private investment and the unusually large U.S. budget deficits. Private saving grew by \$130 billion from 1981 to 1986 (see table 2.1), but the U.S. budget deficit rose by \$140 billion during this time.⁴ When the increases in private investment are taken into account, the increases in the demand for borrowed money far exceeded the increase in private saving. (See figure 2.2)

Table 2.1: U.S. Saving-Investment Imbalance

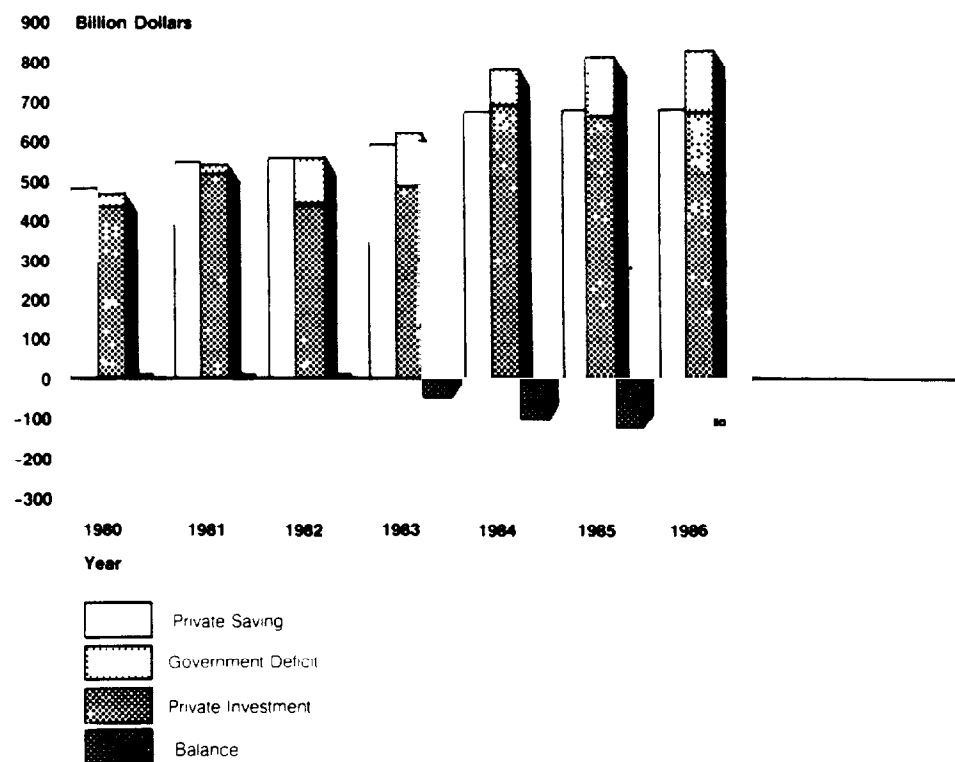
Figures in billions							
	1980	1981	1982	1983	1984	1985	1986
Total saving	\$445	\$522	\$446	\$464	\$573	\$552	\$537
Private saving	478	551	557	592	675	688	681
Personal	137	159	154	131	169	143	116
Business	342	391	403	462	506	545	564
Government saving	-35	-30	-111	-129	-102	-136	-143
Federal	-61	-64	-146	-176	-170	-198	-204
State and local	27	34	35	48	69	62	61
Private investment	437	516	447	502	662	661	686
Saving-investment imbalance	8	6	-1	-38	-89	-109	-149
Current account balance	2	6	-9	-47	-106	-118	-142

Source: Economic Report of the President, 1987, saving and investment data, p. 276 and current account data, p. 358.

³Marris, Stephen, *Deficits and the Dollar: The World Economy at Risk*, Institute for International Economics, December 1985, p. 45.

⁴Even though the budget surpluses of state and local governments increased by \$27 billion during the period, total government saving fell by \$113 billion.

Figure 2.2: U.S. Saving-Investment Imbalance



Source: Economic Report of the President 1987, saving and investment data, p. 276 and current account data, p. 358.

The \$155-billion increase in the saving-investment imbalance from 1981 to 1986 mirrors the \$148-billion increase in the trade deficit over this period.⁵ It is not an arithmetic coincidence that the size of the saving-investment imbalance roughly equals the size of the U.S. trade deficit. The latter reflects the amount of foreign borrowing that was needed to correct the U.S. saving-investment imbalance. As long as the United States has to borrow from abroad to help finance its investment needs and the budget deficit, the trade deficit will persist.

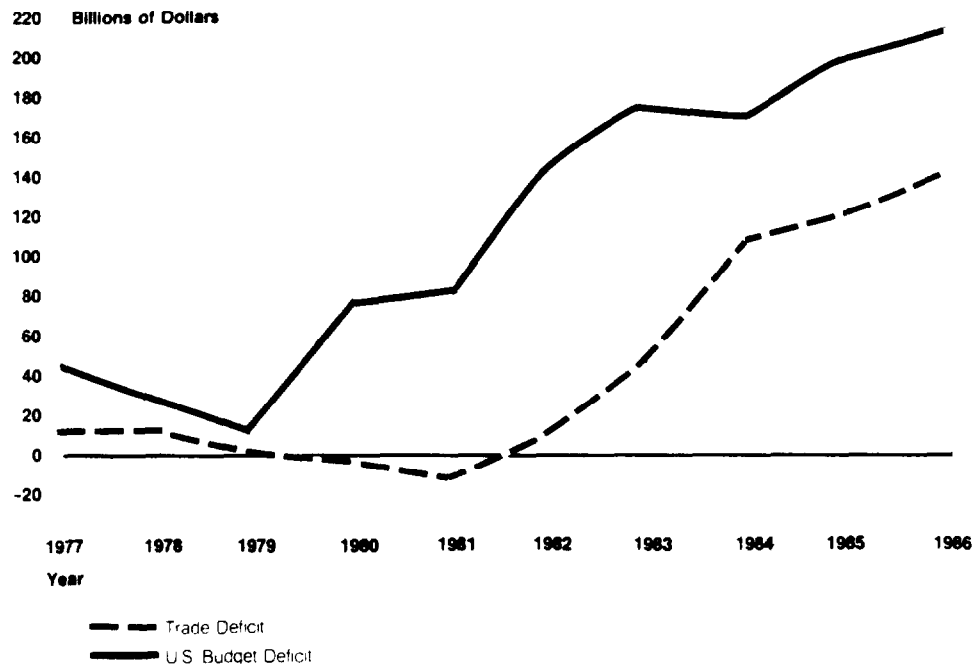
Reasons for the Imbalance

The most important factor in creating the saving-investment imbalance was the growth in the U.S. budget deficit, which was closely correlated with the growth in the trade deficit. (See figure 2.3) Although the increase in private investment was larger than the increase in the budget deficit from 1981 to 1986, investment as a percentage of gross

⁵The saving-investment imbalance and trade deficit are equal conceptually. The small differences in the recorded data result from statistical errors and omissions.

national product (GNP) was near its historical norm. (See table 2.2) Similarly, private saving as a percentage of GNP was also near its historical norm. On the other hand, the budget deficit as a percentage of GNP reached its highest levels since World War II. Without the large U.S. budget deficits, private saving would probably have been sufficient to meet U.S. investment needs, interest rates would have been lower, net foreign capital inflows would have been lower, the dollar would have been weaker, and the trade deficit would have been smaller

Figure 2.3: U.S. Budget and Trade Deficits



Source: Economic Report of the President, 1987, pp 276, 358

Table 2.2: Saving and Investment as a Percentage of GNP

Figures in percent			
Year	Private saving	Private investment	U.S. budget deficit
1971	17.3	15.7	2.0
1972	16.7	16.7	1.4
1973	18.0	17.6	0.4
1974	17.2	16.4	0.8
1975	19.0	13.8	4.3
1976	18.0	15.6	3.0
1977	17.8	17.3	2.3
1978	18.2	18.5	1.3
1979	17.8	18.1	0.6
1980	17.5	16.0	2.2
1981	18.0	16.9	2.1
1982	17.6	14.1	4.6
1983	17.4	14.7	5.2
1984	17.9	17.6	4.5
1985	17.2	16.5	5.0
1986	16.2	16.3	4.8
Average	17.6	16.4	2.7

Source: Compiled from data from the Economic Report of the President, 1987, pp. 244 and 276.

Some analysts have argued that an extraordinary increase in private investment was more important than the budget deficit in creating the saving-investment imbalance. They suggest that the underlying causes of the imbalance were the robust economic recovery and the tax changes made in 1981 that increased the incentive to invest by raising the after-tax return on investment.

The increase in investment certainly was a factor in creating the imbalance, but it is not clear that the investment increase was that extraordinary in the United States. Although the 1980-82 recession caused a severe slump in investment and the 1983-86 recovery brought it back, the level of investment relative to GNP was not unusually high in 1983-86. Despite the tax changes in the early 1980s, private investment, as a percentage of GNP, was not appreciably higher in 1984-86 than it had been in other boom years, such as 1973, and was actually lower than it had been in 1978-79. This suggests that the stimulative effects of tax incentives for investment may have been substantially offset by the depressive effect of high real interest rates.

Proximate Causes of the Trade Deficit

Most discussions of the causes of the trade deficit focus on five factors.

1. The strong dollar,
2. The relatively strong U.S. economy,
3. The LDC debt problem,
4. Foreign trade barriers, and
5. Loss of U.S. competitiveness.

Although all five of these factors represent areas of concern for U.S. trade policy, most experts believe that only the first three actually helped push the U.S. trade deficit to record levels. These three causes resulted from differing national macroeconomic policies that have strongly influenced international capital flows in recent years.

The last two factors represent ongoing problems for U.S. trade policy that have attracted a good deal of attention because they are so visible to U.S. businessmen competing with foreign products. But these two factors cannot account for the sharp rise in the trade deficit since 1980 because these factors have changed little since 1980. Nearly all trade barriers faced by U.S. products were in place long before the deficit soared. U.S. productivity grew at a slower rate than foreign productivity, which suggests that U.S. competitiveness might have fallen, but changes in exchange rates dwarfed any productivity differences and were the primary reason why U.S. products suddenly became much less competitive with foreign products.

Estimates of how much each of the proximate causes contributed to the recent decline in the U.S. trade balance are inherently inexact, in part because these factors are not independent of one another. Nonetheless, rough estimates give a general impression of their relative importance. Most estimates agree that the strong dollar is responsible for between 50 and 60 percent of the deficit, relatively rapid economic growth in the United States is responsible for between 15 and 25 percent, LDC debt problems are responsible for between 10 and 20 percent, and other factors accounted for about 5 percent. The effect of foreign trade barriers and the possible loss of U.S. competitiveness is estimated to be minimal.¹

¹See, for example, Economic Report of the President, 1985, Krugman, Paul, "Testimony for the Roundtable on the Dollar and the Exchange Rate System," Joint Economic Committee, February 21, 1986, Marrs, Stephen, Deficits and the Dollar: The World Economy at Risk, Institute for International Economics, December 1985, and Wallich, Henry C., "Capital Movements—The Tail that Wags the Dog," in The International Monetary System Forty Years after Bretton Woods, Federal Reserve Bank of Boston, 1984.

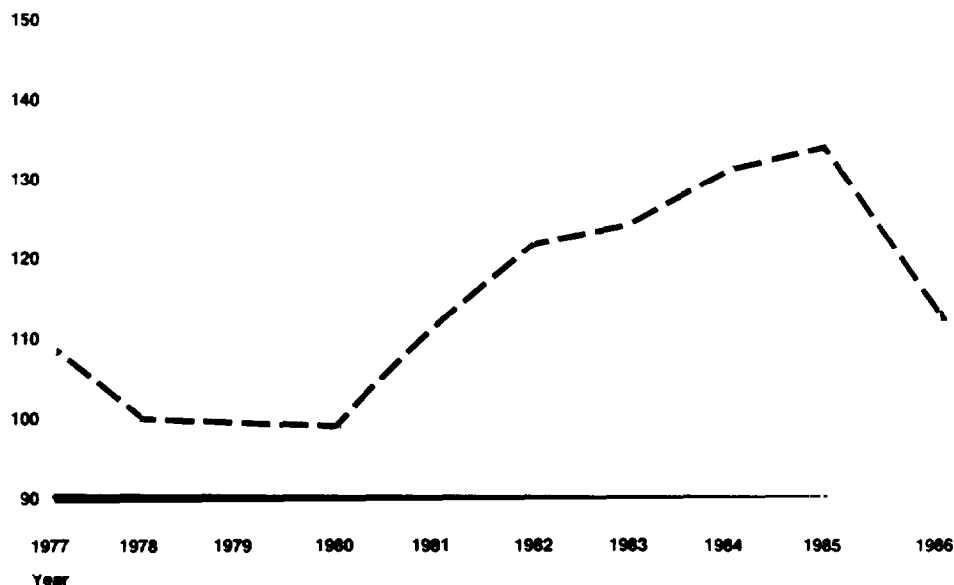
Strong Dollar

The increase in the value of the dollar from 1980 to 1985 caused U.S. export prices to rise and U.S. import prices to fall. As a result, foreign consumers became more likely to buy products from other countries and U.S. consumers became more likely to buy cheaper imports. Thus, imports rose, exports fell, and the trade deficit increased.

Movement of the Dollar Since 1980

After taking into account differences in inflation rates, the dollar's value rose by about 36 percent from 1980 to 1985 in terms of the currencies of 15 other industrial countries that accounted for 61 percent of U.S. trade in 1985.² (See figure 3.1.) This meant that prices of U.S. products were significantly higher relative to prices of foreign products in 1985 than they were in 1980. The dollar's value fell about 17 percent in 1986.

Figure 3.1: Real Value of the Dollar (1980=100)



Source: Compiled from data from Morgan Guaranty Trust Company.

The value of the dollar rose throughout most of the early 1980s and peaked in the first quarter of 1985. As shown in table 3.1, during this

²This figure comes from Morgan Guaranty Trust Company and is a trade-weighted average. Other estimates of how much the value of the dollar has changed against foreign currencies could yield different results because they (1) include a different number of countries in the average, (2) use different weights for each country's currency in determining the average, and (3) use different inflation estimates.

period, the dollar rose about 70 percent in real terms against the currencies of the major European countries, 29 percent against the Japanese yen, but only 4 percent against the Canadian dollar.³

Table 3.1: Real Value of the Dollar

	(1980=100)						
	1981	1982	1983	1984	1985	1985:1	1986:4
Japan	105	118	117	120	121	129	90
Canada	102	101	98	102	104	104	100
United Kingdom	114	125	139	152	148	175	123
West Germany	126	130	137	152	153	170	106
France	124	137	146	160	155	175	106
Brazil	92	94	114	111	113	109	99
Mexico	94	141	146	123	122	112	159
South Korea	102	106	114	120	128	124	128
Trade weighted ^a	112	122	125	133	136	143	109

^aThe trade-weighted value of the dollar is based on the value of the dollar against 15 industrial countries

Source: Bilateral rates computed from data of the International Monetary Fund's International Financial Statistics, trade-weighted rate computed from Morgan Guaranty Bank data

Since the first quarter of 1985, the real value of the dollar has fallen against each of the major European currencies and against the Japanese yen. But the real value of the dollar has changed little against the Canadian dollar and has actually risen against the currencies of Taiwan and South Korea. Overall, in April 1987, the real value of the dollar was about at its 1980 level.

Experts cannot precisely describe the reasons for the fall in the value of the dollar since early 1985. They point to reduced U.S. real growth, lower U.S. real interest rates, lower oil prices, and international agreements and subsequent policy changes as factors that probably helped to weaken the dollar.

The 30-percent fall in the real value of the dollar against the Japanese yen from the first quarter of 1985 to the fourth quarter of 1986 more than offset its earlier rise, leaving the real yen-dollar rate 10 percent below its 1980 level. According to some experts, however, this figure is misleading. Japan achieved a much more rapid growth than the United States in productivity in those sectors that compete internationally than in services and other nontraded products. Productivity growth in the

³Real exchange rates take into account differences in inflation rates

Japanese traded goods sector was 73 percent higher than in the non-traded goods sector from 1973 to 1983; in the United States productivity growth in the traded goods sector was only 13 percent higher.⁴ If this disparity in Japanese productivity has continued and has not been offset by increases in Japanese wage rates, the real value of the yen must continually increase if U.S. traded goods are to remain competitive with Japanese traded goods.⁵ To keep U.S. and Japanese relative costs in internationally competitive sectors on an even keel, the yen would have to appreciate by 3 or 4 percent a year in real terms against the dollar.

Effect of a Weaker Dollar

Most evidence shows that the trade balance effects of exchange-rate changes begin to appear about 6 months after the change and are not fully felt for up to 2 years. Initial effects are perverse (the J-curve effect) because a dollar decline initially increases the dollar value of imports without having much effect on reducing the volume of imports, thus increasing the deficit.⁶ Meanwhile, it takes time for foreigners to increase their purchases of U.S. goods after a weaker dollar reduces U.S. export prices, which delays the reduction in the U.S. trade deficit.

The decline in the value of the dollar since the first quarter of 1985 should improve the U.S. trade deficit. But the improvement will take time because of the J-curve effect. The effect may also be less pronounced than many people expect because the decline in the value of the dollar has been concentrated against the currencies of Japan and European Community countries, which accounted for only 35 percent of U.S. trade in 1985. Against the currencies of other important U.S. trading partners, such as Canada, Korea, Taiwan, and Mexico, which together accounted for 35 percent of U.S. trade in 1985, the dollar has not experienced such a sharp decline.

Another reason why the trade deficit may not decline sharply is that the effect of a sharp increase in the value of the dollar from mid-1984 to the first quarter of 1985 may not have had time to be totally reflected in

⁴Marston, Richard, "Real Exchange Rates and Productivity Growth in the United States and Japan," National Bureau of Economic Research, Working Paper No. 1922, May 1986.

⁵Real exchange rates generally use economy-wide inflation figures to adjust for exchange rate changes. These figures include both traded and non-traded goods. If productivity growth is much more rapid in export-related industries than in the entire economy—as was the case in Japan—exports would have a much greater competitive edge than real exchange rates would indicate.

⁶This phenomenon is called the J-curve effect because a graphical presentation of the trade balance over time resembles the letter 'J'. The initial, short-run effect of the fall in the value of the dollar is a decrease in the trade balance, which is followed by a sustained increase in the trade balance.

recent trade statistics.⁷ Thus, some of the effect of the subsequent decline in the value of the dollar since early 1985 may be simply to keep the trade deficit from getting worse instead of leading it to become better.

Many experts believe that even a fall in the value of the dollar to its 1980 level may not completely reverse the effects of the strong dollar. Once foreign firms have established reputations and invested in marketing, research and development, and distribution networks, they may find it profitable to remain in the market even at a lower exchange rate. Similarly, once U.S. firms have abandoned markets, a mere return of the exchange rate to former levels may not be enough to make the expensive recapture of these markets worthwhile.

Finally, as the dollar appreciated against foreign currencies in the early 1980s, foreign producers appeared to boost their profit margins. This decision provided foreign producers with ample room to narrow profit margins by limiting price increases and thus maintain market share as the dollar depreciated.

U.S. firms could help to lower the trade deficit by aggressively trying to increase sales in markets where they were previously uncompetitive because of the strong dollar. Successful efforts by U.S. firms to increase sales would also mean that the dollar would not have to fall as far as most experts believe to reduce the trade deficit significantly.

Economic Recovery

From 1980 to 1985, the United States experienced stronger economic growth than most of its major trading partners. Because the demand for all goods, including imports, rises as income levels rise, the relatively strong economic growth in the United States caused U.S. imports to increase much faster than U.S. exports.

Even if the U.S. economy had grown at the same rate as those of its major trading partners, the U.S. trade deficit would have tended to increase because the United States tends to increase its level of imports

⁷Many analysts believe that much of the increase in the value of the dollar from mid-1984 to February 1985 was the result of a "speculative bubble" caused by enough investors believing that the value of the dollar would increase that they fulfilled their expectations by bidding up the value of the dollar. These analysts argue that the process fed upon itself until the value of the dollar was substantially above the level that fundamental economic forces would dictate. The sharp decline in the value of the dollar since February 1985 suggests that a speculative bubble may indeed have existed.

more sharply than most other countries in response to increases in income.

Western Europe

From 1980 to 1985, real economic growth in the United States averaged 2.5 percent a year, whereas in the major industrial countries of Western Europe it averaged only 1.2 percent a year. Although economic growth in the United States was not appreciably faster than in Western Europe in 1980-82, the combination of an expansionary fiscal policy and the easing of U.S. monetary policy set off a strong economic recovery in the United States in 1983. Western Europe, meanwhile, experienced a much more modest recovery.

The uneven economic recovery among countries drew imports into the United States at a much faster rate than U.S. exports flowed into Western Europe. From 1980 to 1985, the U.S. trade balance with Western Europe fell annually, so that by 1985 the United States had a \$21-billion trade deficit with Western Europe; in 1980 the United States had a \$20-billion surplus. (See table 3.2)

Table 3.2: U.S Trade With Western Europe

Figures in billions						
	1980	1981	1982	1983	1984	1985
U S exports	\$67.6	\$65.1	\$59.7	\$55.4	\$56.9	\$56.0
U S imports	47.2	52.9	52.9	55.6	72.1	77.5
Trade balance	20.4	12.2	6.8	-0.2	-15.2	-21.4

Source: Survey of Current Business, June 1986, pp. 48 and 50

Japan

The U.S. trade deficit with Japan increased by \$33 billion from 1980 to 1985, which represented one-third of the total rise in the U.S. trade deficit. The U.S. deficit with Japan increased moderately between 1980 and 1982 and then much more rapidly over the next 3 years. This increase reflected a rapid growth in U.S. imports accompanied by near stagnation of exports. From 1980 to 1985, U.S. imports from Japan more than doubled, increasing by \$34 billion. In the same period, U.S. exports to Japan increased by only \$1 billion. (See table 3.3)

Table 3.3: U.S. Trade With Japan

Figures in billions						
	1980	1981	1982	1983	1984	1985
U S exports	\$20.8	\$21.8	\$20.7	\$21.8	\$23.2	\$22.1
U S imports	31.2	37.6	37.7	42.8	60.2	65.7
Trade balance	-10.4	-15.8	-17.0	-21.1	-37.0	-43.5

Source: Survey of Current Business, June 1986, pp. 48 and 50.

Slower Japanese economic growth in the 1980s contributed to the rise in the U.S. trade deficit. In the 1970s, the average annual increase in U.S. real economic growth was 2.7 percent, compared with 5.2 percent for Japan. From 1980 to 1985, the U.S.-Japan growth differential narrowed as the rate of increase in real Japanese economic growth slowed to 4.0 percent a year; real U.S. economic growth was 2.5 percent. This shift in economic growth patterns slowed the growth rate of U.S. exports to Japan relative to the growth rate of U.S. imports from Japan.

Experience suggests that Japan's economy must grow faster than that of the United States to keep U.S. exports and imports with Japan growing at about the same rate. One study estimated that Japan's real income must grow at nearly three times the U.S. rate to maintain balanced increases in exports and imports.⁸ The study estimated that about 40 percent of the increase in the U.S. trade deficit with Japan from 1980 to 1985, or about \$14 billion, could be attributed to a narrowing of the U.S.-Japan growth differential.⁹

Latin American Debt

In the early 1980s many developing countries that had borrowed extensively from the international banking system in the 1970s experienced economic difficulties. Latin American countries were particularly hard hit. These countries were forced to reduce their imports sharply to service their debt. As a result, the U.S. trade deficit with these countries rose sharply.

A number of economic factors combined to disrupt the economies of many Latin American countries. The recession in the industrial countries in the early 1980s reduced the demand for the exports of Latin American countries. The decline in the prices of many commodities

⁸Reinhart, Vincent, "Macroeconomic Influences on the U.S.-Japan Trade Imbalance," Quarterly Review, Federal Reserve Bank of New York, Spring 1986, pp. 6-11.

⁹The study also estimated that one-third of the increase in the U.S. trade balance with Japan from 1980 to 1985, or \$12 billion, was caused by the strengthening of the U.S. dollar.

exported by these heavily indebted countries also contributed to their problems. In addition, high interest rates and the increased burden of dollar-denominated debt as the dollar rose in value made it more difficult for these countries to service their debt.

Latin American imports fell because of the exchange rate devaluations and restrictive fiscal and monetary policies that were part of adjustment programs supported by the International Monetary Fund. Mexico, for example, reversed a late 1970s trend toward import liberalization and instituted a strict import licensing procedure. The idea behind these adjustment programs was to enable these countries to service their loans from foreign exchange earnings, not by receiving new loans.

The value of U.S. exports to Latin America fell \$8 billion from 1980 to 1985. (See table 3.4) Exports to Latin America accounted for 17 percent of total U.S. exports in 1980, but only 14 percent in 1985.

Table 3.4: U.S. Trade With Latin America

Figures in billions						
	1980	1981	1982	1983	1984	1985
U.S. exports	\$38.8	\$42.8	\$33.2	\$25.6	\$29.8	\$30.8
U.S. imports	37.5	39.1	38.6	42.8	48.4	46.1
Trade balance	1.3	3.7	-5.4	-17.2	-18.6	-15.3

Source: Survey of Current Business, June 1986, pp. 48 and 50.

As the potential for further import reductions was exhausted, Latin American countries tried to expand their exports. From 1980 to 1985, U.S. imports from Latin America increased by \$9 billion, or 23 percent. As the leader in the global recovery, the United States, with its comparatively open markets, played a disproportionate role in absorbing the output of the debtor countries. Between 1982 and 1984, the United States absorbed about 95 percent of the increase in exports by Latin American countries to industrial countries, much more than would be implied by the normal 50 percent U.S. share of Latin American exports to industrial countries.

As a result of the decrease in exports to Latin American countries and an increase in U.S. imports from these countries, the U.S. trade balance with Latin America fell from a positive \$1 billion in 1980 to a negative \$15 billion in 1985. The U.S. trade deficit with Latin American countries will probably continue as long as they have to run trade surpluses to service their loans.

Foreign Trade Barriers

Some experts have attributed the sharp increase in the U.S. trade deficit to the effects of trade barriers abroad, but most believe that the increase is too pervasive to be credibly explained by analyses focused on a product-by-product, country-by-country basis. Most of the trade barriers that U.S. goods face have been in place for many years.

Removal of foreign trade barriers could reduce the U.S. trade deficit, but the effects would be dwarfed by the possible effects of such macroeconomic factors as changes in exchange rates. These macroeconomic factors affect all industries that compete with foreign goods and, thus, have more wide-ranging effects than foreign trade barriers, which affect only those U.S. industries facing the barriers.

Even if one U.S. industry succeeds in improving its trade position by having foreign trade barriers removed, it does not ensure a comparable increase in U.S. employment and the trade balance. Rather, the improved trade performance of one U.S. sector might worsen that of other sectors. For example, one study estimated that if all Japanese and U.S. tariffs and nontariff barriers were removed, U.S. industries that produce agricultural, forestry, and fisheries products would expand significantly because these industries are heavily protected in Japan, but virtually all U.S. manufacturing industries would contract because these industries are given minimal protection in Japan and somewhat higher protection in the United States.¹⁰

Although foreign trade barriers did not play a central role in causing the U.S. trade deficit to surge, they are a major source of friction. They can distort the composition of U.S. trade with foreign countries, imposing serious costs on some U.S. producers.

Japan has borne the brunt of the criticism for its trade barriers because of the rapidly increasing U.S. bilateral trade deficit with Japan. Although Japan's tariffs and quotas are recognized as being no higher than those of other major industrial countries, many suspect that "intangible" barriers to imports contribute to Japan's trade surplus.

Intangible barriers are mainly regulations and business practices applying to both domestic and foreign producers that, by accident or design, work to the special disadvantage of imports. Intangible barriers are found in many countries and have attracted increasing international

¹⁰Saxonhouse, Gary, "Japan's Intractable Trade Surpluses in a New Era," Seminar Discussion Paper No. 178, University of Michigan, 1986.

criticism as tariffs have gradually been negotiated downward. But Japanese intangible barriers have attracted particular attention. Other countries have complained that restrictive product standards and related inspection and certification procedures, the wholesale and retail distribution systems, and government procurement procedures make many Japanese markets difficult to penetrate.

One study estimated that if Japan were to eliminate all its intangible trade barriers, its imports would increase by as much as \$9 billion from the 1983 level, with about half of the gain accruing to U.S. exporters.¹¹ The study states that although such a gain is not inconsequential, it is too small to suggest that intangible barriers are the primary or even major source of Japan's trade surplus. Another study reported similar results. It estimated the effect of Japanese trade barriers on U.S. exports at \$5 billion to \$8 billion annually.¹² It also estimated the effect of U.S. trade barriers on Japanese exports of steel, textiles, and autos to the United States at \$4 billion annually.

Although trade barriers have had a minimal effect on the increased U.S. trade deficit, they can affect potential gains from trade. By preventing a country from exporting products in which it has its greatest comparative advantage, a protecting country reduces the gains from trade for both countries. The loss of potential U.S. benefits from trade is especially great if foreign barriers protect against those industries in which the relative advantage of U.S. producers is greatest.

U.S. Competitiveness

Although declining U.S. competitiveness is frequently cited among the reasons for the large increase in the U.S. trade deficit, it actually was not a significant factor. As discussed earlier, the underlying causes were macroeconomic factors (such as changes in U.S. fiscal policy), rather than microeconomic factors (such as productivity rates), which determine competitiveness. Competitiveness is not something that the United States suddenly lost in the early 1980s with the increased trade deficit. The rapid increase in the value of the dollar priced U.S. products out of many markets and dwarfed any effect that productivity differences could have had on the competitiveness of U.S. products.

¹¹Christelow, Dorothy, "Japan's Intangible Barriers to Trade in Manufactures," Quarterly Review, Federal Reserve Bank of New York, Winter 1985-86, pp 11-18.

¹²Bergsten, C. Fred and William R. Cline, The United States-Japan Economic Problem, Institute for International Economics, October 1985

Although a loss of U.S. competitiveness was not a major factor in the increased trade deficit, the level of U.S. competitiveness is an important issue. Increased competitiveness is a significant factor in gaining better terms of trade, rather than a better balance of trade. Better terms of trade would enable the United States to increase the amount of import goods and services obtained for a given amount of exported goods and services, thereby raising the nation's standard of living. If the United States has lost competitiveness, however, the worsening of its terms of trade would result in a reduced standard of living.

Experts do not agree on the current status of U.S. competitiveness. Some experts believe that U.S. industry is still highly competitive and has done a good job holding its own against increased foreign competition, despite the sustained period of dollar overvaluation. These views are based on aggregate data showing increased U.S. manufacturing output and favorable unit labor costs. Other experts believe that U.S. competitiveness has declined. Their views are based on factors such as decreasing world market shares for U.S. exports (including high-technology products), relatively low rates of productivity increases, and declining real wages.

**Increased Competitiveness
Means Increased Gains
From Trade**

If exchange rates were fixed, a loss of U.S. competitiveness would result in a larger U.S. trade deficit. Increased foreign competitiveness would allow foreign firms to lower their prices relative to U.S. prices, which would result in increased sales by foreign firms and reduced sales by U.S. firms. Fixed exchange rates would prevent any adjustment by exchange rates to offset the change in competitiveness.

But with exchange rates allowed to float, the effect of changes in U.S. competitiveness on the trade deficit becomes quite small when compared with the effect of changes in exchange rates. Changes in productivity, which can significantly affect a country's competitiveness, seldom are greater than 3 percent a year, whereas annual exchange rate changes can be much larger. In the long run, when the compound effects of a chronic loss of U.S. competitiveness might be felt on the trade deficit, the value of the dollar would fluctuate at lower levels to reflect the loss of competitiveness. A weaker dollar would mean more U.S. dollars would be needed to purchase foreign products, which would mean that the U.S. terms of trade would have fallen. The trade deficit would be relatively unaffected.

Even though policies designed to increase U.S. competitiveness have only a limited effect in reducing the trade deficit, they may still be desirable. The gains from trade are derived from the exchange of products whose production at home would require using more domestic resources than are needed to purchase the goods from abroad. Policies that increase a country's gains from trade result in an increase in that country's standard of living. International trade can thus be considered as a kind of "superior technology" that allows countries to derive more from their productive inputs than would otherwise be possible.¹³

The campaign to enhance U.S. competitiveness has generated many proposals that, if implemented effectively, might promote the economic well-being of the country. But because most of these proposals would entail economic costs, before they are implemented it should be determined if their benefits exceed their costs. It should be noted that these policies would have the same effect even if the economy were entirely closed to international trade.

Experts believe that while macroeconomic forces will sooner or later reverse the U.S. trade deficit, the economic costs of the required adjustment will be higher if U.S. competitiveness has eroded. In such a case, the dollar would have to fall even lower than it would otherwise to sell U.S. products on world markets; the worsened terms of trade would reduce the U.S. standard of living.

Need for Better Understanding of Competitiveness

Discussions of the U.S. trade deficit often turn into discussions of the status of U.S. competitiveness and its importance as a factor causing the current trade imbalance. This occurs because of some confusion about what the term "competitiveness" means.

Although competitiveness can be analyzed at three separate levels (a nation's entire economy, an industry, and an individual firm), when discussing U.S. competitiveness, attention must focus on the nation as a whole, rather than on individual industries or firms. In any dynamic economy, some industries and firms will be shrinking and others will be growing.

Most studies define national competitiveness as the ability of a country to sell goods and services in the international marketplace while

¹³ McCulloch, Rachel "Trade Deficits, Industrial Competitiveness, and the Japanese" California Management Review, vol 27, no 2, Winter 1985, p 152

increasing its standard of living. This implies that a country is not necessarily more or less competitive because of a positive or negative balance of trade. At a sufficiently low exchange rate for its currency, any country could have a trade surplus. But that exchange rate might have to be so low that the country's standard of living would fall because of the fall in the country's terms of trade. To be competitive, a nation must be able to employ its resources so as to earn a rising level of real income through specialization and trade in the world economy

**Arguments That U.S.
Competitiveness Is Healthy**

Those experts who believe that U.S. industry has held its own against increased foreign competition argue that the "deindustrialization of America" by foreign competition is more myth than substance.¹⁴ They believe that the economy was hindered by an overvalued dollar and a recession, but is now recovering well.

These analysts argue that U.S. economic growth has been strong enough to raise both domestic manufactured output and imports substantially. They point out that U.S. industrial production has performed well in comparison to its major trading partners, except for Japan: from 1980 to 1985, the average annual increase was 2.8 percent for the United States, 2.0 percent for Canada, 0.7 percent for the European Community, and 4.1 percent for Japan.

They also note that manufacturing output has grown steadily with the economy. Manufacturing's share of real GNP has fluctuated in a very narrow range—between 20 and 22 percent—over the past two decades. This suggests that the demand for U.S. manufactured goods has not shifted much over the past 20 years despite the growth of U.S. imports

Another important indicator, unit labor costs, is also cited as evidence of sustained U.S. competitiveness. U.S. unit labor costs in manufacturing have increased at a relatively slower rate than in many of its trading partners. Table 3.5 compares unit labor costs in the United States with a trade-weighted average of unit labor costs in 11 of the largest foreign industrial countries.

¹⁴See, for example, *Economic Report of the President*, 1987 and 1986, and Fieleke, Norman S. "The Foreign Trade Deficit and American Industry" *New England Economic Review*, Federal Reserve Bank of Boston, July/August 1985

Table 3.5: U.S. and Foreign Unit Labor Costs [1980 = 100]

Year	United States	11 Foreign industrial countries ^a	
		National currency basis	Dollar basis
1980	100.0	100.0	100.0
1981	107.3	108.2	96.9
1982	114.0	114.4	91.6
1983	111.1	115.4	88.5
1984	110.5	115.1	81.9
1985	111.2	116.3	80.3

^aTrade-weighted average of Belgium, Canada, Denmark, France, Germany, Italy, Japan, Netherlands, Norway, Sweden, and the United Kingdom.

Source: Economic Report of the President, 1987, p. 118.

When measured in national currencies, growth in unit labor costs from 1980 to 1985 was 5 percentage points lower in the United States than abroad. This would have improved U.S. cost competitiveness if the dollar had not appreciated to such an extent that it overwhelmed the fall in relative U.S. labor costs and caused relative foreign unit labor costs to fall by 39 percent when measured in dollars.

Arguments That U.S. Competitiveness Is Declining

Experts who argue that U.S. competitiveness has been declining base their analysis on a variety of indicators.¹⁵ Perhaps the most important is that U.S. productivity growth has been outstripped by almost all U.S. trading partners. Between 1981 and 1985, the average annual rate of productivity growth was 1.0 percent for the United States, 3.1 percent for Japan, 2.8 percent for the United Kingdom, 2.0 percent for Germany, 1.5 percent for France, and 1.4 percent for Canada.¹⁶

In addition to lagging rates of productivity growth, these analysts cite declining real wages and decreasing world market shares for U.S. exports. Real hourly compensation remained virtually stagnant between 1973 and 1979, and has declined since then. U.S. firms are losing world market share in many industries. Even in high-technology industries, which have historically been sources of competitive strength, the United States has lost world market share in 7 out of 10 sectors since 1965.

¹⁵See, for example, The Report of the President's Commission on Industrial Competitiveness, "Global Competition: The New Reality;" and Scott, Bruce R. and George C. Lodge, eds. U.S. Competitiveness in the World Economy.

¹⁶Wharton Econometric Forecasting Associates, "World Economic Outlook," December 1986.

Although each measure of competitiveness has its limitations and individually may be explained away, some argue that together they portray a serious long-term problem. Even temporary distortions, such as the overvalued dollar, can have profound and enduring consequences. Foreign companies that establish sales, distribution networks, and brand recognition in the U.S. market will tend to hold them as the dollar declines. In addition, the large profits garnered by foreign industries as a result of the high dollar were, in many cases, reinvested in more efficient production that will generate a competitive edge in the years to come.

Conclusion

The most important proximate cause of the increased U.S. trade deficit was the sharp rise in the value of the dollar. Other important proximate causes were the relatively strong U.S. economic recovery and the Latin American debt problem. Foreign trade barriers and a loss of U.S. competitiveness were not important factors in the increase in the trade deficit.

The increase in the value of the dollar caused prices of U.S. goods to rise relative to the prices of foreign goods, which caused U.S. imports to rise and U.S. exports to fall. The relatively strong U.S. economic recovery caused U.S. consumption of all goods, including imports, to rise, whereas languishing foreign economies curtailed U.S. exports. Latin American countries sharply curtailed their imports because they needed to achieve trade surpluses to service their international debt.

The increase in the trade deficit was so pervasive that foreign trade barriers, most of which have been in place for many years, could not account for much of the increase. U.S. products became less competitive in international markets in the 1980s primarily because of the sharp increase in the value of the dollar, not because of a sudden decline in productivity.

Other Effects of the Fundamental Causes

The macroeconomic factors that led to the increased trade deficit had both positive and negative effects on the U.S. economy. U.S. industries that compete in international markets experienced difficulties, and employment in export-related and import-competing industries fell sharply. In addition, the increased deficit increased protectionist pressures that threaten to undermine the international trading system. On the other hand, employment increased sharply in industries that do not compete with foreign goods, and U.S. inflation fell dramatically.

The U.S. trade deficits and the corresponding borrowing from foreigners needed to finance them are so large that the annual addition to the U.S. international debt position exceeds the total debt of such large debtors as Brazil and Mexico. Although the U.S. debt position relative to the size of the U.S. economy is currently not as serious as the debt positions of many Latin American countries, the United States will have to reduce the deficit or face the possibility that in the future it may be forced to follow economic policies that are primarily designed to allow it to service its international debt.

Negative Effects

Many U.S. manufacturing industries were injured by the increased competition from foreign producers in both U.S. and foreign markets. The United States, which had a surplus of \$11 billion in trade in manufactured goods in 1980, registered a \$107-billion deficit in 1985.

Employment

Although many export and import-competing industries experienced declines in employment, the effect of the macroeconomic policies on total employment is unclear. Most studies that try to translate the trade deficit into job losses are misleading because they implicitly assume that the trade deficit could be eliminated without affecting other sectors of the economy. These analyses often ignore that total employment rose by 8 million from 1980 to 1985, even though the trade deficit rose by \$120 billion over this period. The macroeconomic policies that led to the trade deficit also stimulated the growth in employment. Furthermore, the capital inflows that corresponded to the trade deficit played an important role in creating the economic conditions that led to the increase in employment.

Although the effect of the trade deficit on total employment is unclear, the trade deficit certainly affected the composition of employment. Export-related employment fell by 1.8 million jobs from 1980 to 1984, a 25-percent decline. But a large number of jobs were created in services

and industries that do not compete directly with foreign products and services.

Protectionist Pressures

The poor economic performance of U.S. industries facing increased foreign competition evoked strong pressures for changes in U.S. trade policy, even though the overall U.S. economy was doing reasonably well. The proposed changes included protection against imports, aggressive export promotion, and retaliation against those who restrict imports from the United States. Support for these changes is widespread because of a belief that the U.S. industrial base and national security are threatened by a decline of such manufacturing industries as steel and machine tools. In addition, large trade deficits increase the suspicion that other countries are taking unfair advantage of the U.S. free trade philosophy and have created an "uneven playing field" for U.S. industries.

The large trade deficits could cause more stringent protectionist laws to be adopted. If foreign governments retaliate, the world's trading system could be undermined, which could lower the U.S. standard of living by forcing U.S. industries to shift resources from the production of exported goods in which the United States has a comparative advantage to the production of goods that previously have been imported from more efficient foreign producers.

Foreign Countries

The macroeconomic policies that led to the increased trade deficit also had some negative effects on foreign economies. The increase in the value of the dollar induced foreign central banks to increase their interest rates to prevent the value of their currencies from falling even further. The induced rise in interest rates restrained spending in interest-sensitive sectors and contributed to the stubbornly high level of unemployment in Europe. In addition, the fall in the value of foreign currencies increased inflationary pressures abroad.

Positive Effects

In some respects, the macroeconomic factors that led to the increase in the trade deficit were beneficial. The strong economic recovery stimulated U.S. production and investment in sectors less involved in international trade. In other industries, competition from imports prompted more spending on plant and equipment and greater attention to controlling wages and other costs. The strong dollar kept prices of traded goods and close substitutes lower than they would have been otherwise,

thereby benefitting both U.S. consumers and U.S. producers who use imported goods. The increase in import competition also caused structurally weak industries to be pared back, an essential process in the natural evolution of the U.S. economy. In addition, the inflow of foreign funds that financed the trade deficit kept U.S. interest rates lower and investment higher than would have been the case otherwise

Inflation

The increase in the value of the dollar from 1980 to 1985 made the task of bringing inflation under control easier. The strong dollar reduced the prices of many imports, which forced their U.S. competitors to reduce their prices in an effort to remain competitive. Studies estimate that the increased value of the dollar was responsible for more than one-sixth, but less than one-half, of the decrease in inflation from 1980 to 1984. Recession and lower oil prices help to explain the remainder

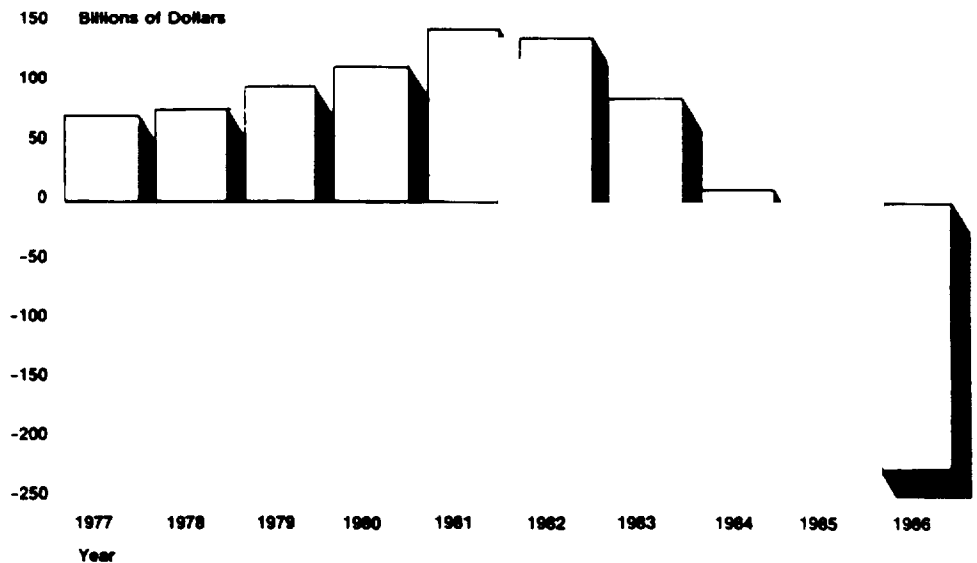
Foreign Countries

The macroeconomic policies that led to the increased trade deficit also had positive effects abroad. The stimulative effects on the economies of Japan and Europe caused by the increased U.S. demand for foreign products came at a time when domestic demand in Europe and Japan was languishing because of restrictive fiscal policies. Without this helpful stimulus from the United States, it might not have been possible for some European countries and Japan to reduce their government budget deficits without causing sharp rises in unemployment.

Effect of U.S. Debt Position

Early in 1985 the United States became a debtor country for the first time since 1914, when its net international investment position became negative. (See figure 4.1) By the end of 1985, the United States had become the world's largest debtor, surpassing Brazil.

Figure 4.1: U.S. International Investment Position (In Billions of Dollars)



Source: Economic Report of The President, 1987, p. 363

The U.S. debt position, however, is not comparable with those of Brazil and other LDC debtors. At the end of 1986, it was about \$250 billion, which was only about 6 percent of U.S. GNP. On the other hand, Brazil's debt position was equivalent to about 40 percent of Brazilian GNP. Thus, although the United States is the world's largest debtor, relative to the size of its economy its debt position is smaller than the debt positions of most LDCs.

In addition, U.S. foreign debt is unique in that the United States is the only country able to borrow large amounts in its own currency. U.S. international debt is denominated almost exclusively in U.S. dollars, and the United States does not have to obtain foreign exchange to repay its international debt. This frees U.S. debt-servicing payments from a major potential problem faced by most borrowers—depreciation of their currency against the currencies in which the debt is denominated.

If the U.S. trade deficit were to remain at its present level relative to GNP, however, within a decade the ratio of U.S. international debt to GNP would be as high as that of Brazil. At some point, the United States will have to service its debt by exporting more than it imports rather than by increasing its borrowing. To achieve these trade surpluses, either exports will have to be increased by increasing production or imports

reduced by cutting back on consumption. The key question is whether foreign borrowing is currently being used to build the plants and equipment that will generate the output needed to service and eventually repay the foreign debt or whether the borrowing is providing for higher levels of current consumption. Because investment is not unusually high, it appears that the borrowing is being used primarily to finance increased consumption.

Policy Options for Reducing the Trade Deficit

Many remedies have been put forward for reducing the trade deficit. Several involve actions by the United States; others involve actions by other countries. Most of the policy proposals rely upon a lower value of the dollar to improve the price competitiveness of U.S. products against foreign products.

U.S. Actions

Suggested U.S. actions include changes in fiscal, monetary, and trade policies. Specifically, these proposals include reducing the large U.S. budget deficit, following an expansionary monetary policy, and imposing an import surcharge, either across-the-board or aimed at countries with large trade surpluses with the United States, particularly Japan.

Even though the value of the dollar has already fallen substantially from its 1985 highs, many analysts believe that it must fall still further if the trade deficit is to be eliminated. Morgan Guaranty Trust Company for example, estimates that if the dollar remained at its end-year 1986 level for the remainder of the decade, the U.S. trade deficit would not fall below \$100 billion in the foreseeable future. Many analysts believe that the value of the dollar must fall below its 1980 level to displace foreign products that have become firmly entrenched in international markets after supplanting U.S. goods when the dollar was strong.

Saving-Investment Imbalance

Mirroring the decline in the U.S. trade deficit will be a decline in U.S. net capital inflows. This means that the United States will have to reduce its saving-investment imbalance by increasing private saving, decreasing investment, or reducing the U.S. budget deficit. Prospects for increasing saving are not good, however, nor are the consequences of lower investment.

Total private saving (comprising business and personal saving) as a share of GNP has been relatively constant since the mid-1970s and is actually higher than it was in most of the 1950s and 1960s. Although business saving has increased since 1974, personal saving has drifted downward since the mid-1970s and is low relative to its historic norm, offsetting the increase in business saving. Attempts to increase personal saving have not had much success.

High investment is generally considered desirable because investment leads to increases in productivity and economic growth. These increases, in turn, lead to higher real wages and a higher standard of living. By

forgoing current consumption, a country can invest in assets that will help to produce future output. Thus, lowering the level of investment is not an attractive option.

Given the above alternatives, reducing the U.S. budget deficit appears to be the most viable way to reduce the saving-investment imbalance. To eliminate the saving-investment imbalance, the budget deficit need not be eliminated, just reduced significantly.

Lower the Budget Deficit

Many experts believe that reducing the budget deficit would lead to a lower trade deficit. They argue that a lower budget deficit would lead to lower interest rates because the demand for credit in the United States would fall. The decline in U.S. interest rates would make U.S. securities less attractive to foreigners, which would tend to lower the value of the dollar. A weaker dollar would eventually reduce the trade deficit by lowering the relative prices of U.S. goods in international markets, although it may take several years before the full effect is felt.¹ The reduction in the trade deficit would be mirrored by a reduction in U.S. net capital inflows. The decline in the budget deficit, however, would reduce the saving-investment imbalance and help to prevent U.S. interest rates from rising and crowding out private investment.

Reducing the budget deficit, however, could lead to a recession. A large budget deficit provides a stimulus for the U.S. economy that, if removed too quickly, could lead to an economic downturn. The proper rate for reducing the budget deficit requires walking a fiscal tightrope between reducing the deficit too quickly and triggering a recession or reducing it too slowly and risking the long-term costs of running large trade deficits.

To prevent the U.S. economy from sliding into a recession, the budget deficit needs to be reduced gradually, at about the same rate as the trade deficit declines. The stimulative effects of the weakening of the dollar since 1985 should begin to be felt in 1987, which might allow the budget deficit to be cut in 1987 without causing a recession. A reduced budget deficit should tend to push the dollar lower and lead to an even lower trade deficit in later years. That would allow the budget deficit to be cut even further in subsequent years without causing undue harm to the U.S. economy.

¹It is possible that by bolstering foreign confidence in the U.S. economic outlook, reducing the U.S. budget deficit could actually increase the value of the dollar in the short run.

Expansionary Monetary Policy

An expansionary monetary policy could help to push the value of the dollar lower and to offset some of the contractionary effects of a smaller U S budget deficit. It would lower short-term interest rates, which would increase spending by both businesses and consumers. Lower interest rates should also weaken the dollar, which would allow U S import-competing industries to increase their profits because of higher sales and higher markups. Thus, pressure on the manufacturing and agricultural sectors would be relieved.

The Federal Reserve, however, may be reluctant to expand the money supply too rapidly. The Federal Reserve helped to lower inflation and would like to keep it low. But if inflation increases significantly because higher import prices caused by the weaker dollar allow U S. firms to raise their prices, the Federal Reserve may not be willing to expand the growth rate of the money stock for the fear of contributing to the inflationary spiral.

Trying to coordinate major changes in macroeconomic policies without causing either a recession or renewed inflation, however, is very difficult because the timing and severity of the economic effects of the changes are difficult to determine accurately beforehand.

Import Surcharge

A U.S. import surcharge would lower both the U.S. budget and trade deficits, but could damage the international trading system if other countries were to emulate the United States. A surcharge could be across-the-board or country-specific; both have been proposed, and either could be imposed legislatively or by Presidential actions under the Trade Act of 1974.

The effect of a surcharge on the budget and trade deficits is direct. A surcharge, like any other tax increase, would increase government revenues, which would lower the budget deficit. At the same time, a surcharge would cause U.S. import prices to rise, which would eventually reduce the level of U.S. imports and lower the trade deficit. In addition, a surcharge would permit U.S. firms that compete with imports to raise their prices and profit margins, which have been severely eroded in recent years by the strong dollar.

A surcharge would have several negative effects on the U S. economy, including reduced competitiveness for U S. exporters that use imported goods as inputs in the production process. Most importantly, however, is

the possible effect that a surcharge would have on the whole international trading system. In a world beset by both international debt burdens and government budget deficits that are generally considered excessive, a move by the United States to impose a surcharge on imports could be widely copied.² Such an effect would reduce U.S. exports, thus offsetting at least part of the reduction in the trade deficit achieved by the surcharge. The result would be that the international trading system could be disrupted severely, which could undermine one of the key foundations of postwar prosperity and political harmony for free-world countries.

A country-specific surcharge would run less risk of widespread copying. Such a surcharge, however, would generate much less revenue for the government and would affect only a portion of U.S. imports, thus reducing the effect of the surcharge on reducing the deficits. In addition, a selective surcharge would directly violate the most-favored-nation principle of Article I of the General Agreement on Tariffs and Trade.

Presumably less damaging would be the threat of a selective U.S. surcharge, or even an actual U.S. decision to impose a surcharge at a specified future date unless bilateral U.S. trade deficits were reduced. Indeed, many who favor such a course admit that their goal is not to impose a surcharge, but to prod these countries into taking policy actions to reduce their trade surpluses. Of course, such brinksmanship can easily get out of control, and a surcharge that neither side desires may ultimately be imposed.

Foreign Actions

Opposite actions analogous to those suggested for the United States—increasing foreign budget deficits and a surcharge on exports—have also been suggested for other countries, particularly Japan. In addition, some have urged that foreign trade barriers be removed and that emerging industrial countries that are keeping their currencies undervalued allow their currencies to increase in value.

Increased Economic Growth

Stronger economic growth abroad over a sustained period, particularly for major U.S. trading partners, such as Japan and West Germany, would reduce the U.S. trade deficit by increasing U.S. exports. Stronger

²The United States could argue that by running huge trade deficits for several years it has shown a strong commitment to free trade and that a temporary aberration to restore balance should be understood by other countries and should not be copied.

economic growth abroad could be achieved through an increase in foreign government spending, tax cuts, or expansionary monetary policy. An increase in foreign incomes would increase foreign consumption of all goods, including imports. In addition, an expansionary fiscal policy would put upward pressure on foreign interest rates. As a result, foreign currencies would appreciate, making foreign goods less price competitive with U.S. goods. Many foreign governments are concerned, however, about the size of the public sector and the build-up of public debt.

Increased foreign economic growth would increase U.S. exports, but by how much is not clear. U.S. goods account for such a small portion of consumption in West Germany and Japan that even if the rate of economic growth was to increase substantially in these countries, U.S. exports might not increase much. It is possible, however, that increased economic growth in West Germany and Japan could trigger substantial increases in economic growth in other European and less developed countries that, in turn, could lead to a further increase in U.S. exports.

Export Surcharge

An export surcharge would help to reduce the trade deficit by raising the prices of foreign exports to the United States. Such an action, however, would reduce private investment in foreign countries by reducing the profitability of their firms. Consequently, foreign economic growth would be slower, and ironically, the trade surpluses of these countries might actually increase. Unless the surcharge were permanent, the effect on the trade deficit would be only temporary, and other measures would have to be taken to balance the U.S. trade deficit in the long run.

Reduced Trade Barriers

Some U.S. officials have called on countries, particularly Japan, to liberalize their import markets to reduce their large trade surpluses with the United States. If Japan were to institute such a liberalization, the greatest effect might be to increase its imports of agricultural products, its most protected market. Increased Japanese imports in previously protected industries, however, could lower the value of the yen because of the increased demand for foreign currency by Japanese importers. As a result, Japanese exports could become more competitive.

This is not to suggest, however, that such import liberalization as the Japanese can take would not be desirable. On the contrary, by allowing U.S. producers to export those products in which the United States has a comparative advantage, the liberalization of Japanese markets would allow U.S. resources to be used in their most productive manner. As a

result, the U.S. standard of living would be improved slightly because of the greater gains derived from trade

LDC Debt Problem

If the LDC debt crisis could be resolved, the U.S. trade deficit would be lowered because of increased exports to Latin American countries. Resolving the debt crisis, however, is a difficult problem. Several remedies have been proposed to help to resolve the crisis, but considerable controversy still surrounds the relative costs and benefits of these proposals.

However, it appears that the cost of the LDC debt crisis has been borne primarily by the real side of the economy in both the United States and the LDCs rather than by the financial sector. U.S. commercial banks as a whole apparently have not reserved against or written down much of their LDC debt. As a result, their balance sheets and income statements have not been substantially affected by the debt crisis. U.S. companies, however, have lost export sales because debt-burdened LDCs restricted imports to conserve scarce hard currency. Furthermore, U.S. companies that compete with imported goods have lost sales as the LDCs expanded their exports to the United States to earn dollars with which to service their debt. More sharing of the cost of the debt crisis by the financial sector of the economy may be appropriate. In addition, countries with trade surpluses could make greater efforts to provide markets for products of LDCs.

Revalue Fixed Exchange Rates

Some developing countries continually intervene in foreign exchange markets to keep the value of their currencies in line with the value of the dollar. Some of these countries, particularly Taiwan, keep their currencies undervalued so that they can achieve large trade surpluses with the United States.³ If these countries were to revalue their currencies upward or allow them to fluctuate freely in foreign exchange markets, their trade surpluses with the United States would fall. U.S. efforts to persuade these countries to revalue their currencies have had limited success.

³Korea has also held down the value of its currency against the dollar, but Korea faces a different situation than Taiwan. Korea had a trade surplus of \$4 billion with the United States in 1985, but has had an overall trade deficit in every year from 1970 to 1985. Taiwan, on the other hand, had a trade surplus of \$11 billion with the United States in 1985 and has had its overall trade surplus increase in every year since 1980.

Bibliography

Abernathy, William, Kim Clark, and Alan Kantrow, Industrial Renaissance Producing a Competitive Future for America, 1983

Baldwin, Richard, and Paul R. Krugman, "Persistent Trade Effects of Large Exchange Rate Shocks," NBER Working Paper No. 2017

Belongia, Michael T. and Courtenay C. Stone, "Would Lower Federal Deficits Increase U.S. Farm Exports?" Review, Federal Reserve Bank of St. Louis, November 1985.

Bergsten, C. Fred and William R. Cline, The United States-Japan Economic Problem, Institute for International Economics, October 1985

Bergsten, C. Fred (ed.), Global Economic Imbalances, Institute for International Economics, December 1985.

Branson, William H., "Causes of Appreciation and Volatility of the Dollar," The U.S. Dollar—Recent Developments, Outlook, and Policy Options, Federal Reserve Bank of Kansas City, 1985.

Branson, William H., "The Limits of Monetary Coordination as Exchange Rate Policy," Brookings Papers on Economic Activity, 1:1986.

Branson, William H., and James P. Love, "Dollar Appreciation and Manufacturing Employment and Output," NBER Working Paper No. 1972

Cecchetti, Stephen G., "High Real Interest Rates: Can They Be Explained?" Economic Review, Federal Reserve Bank of Kansas City, Sept./Oct. 1986.

Christelow, Dorothy, "Japan's Intangible Barriers to Trade in Manufactures," Quarterly Review, Federal Reserve Bank of New York, Winter 1985-86.

Cohen, Stephen S. and John Zysman, "Can America Compete?" Challenge, May-June 1986.

Congressional Budget Office, Analysis of the Deterioration in U.S. Trade Performance, March 30, 1984.

Cooper, Richard N., "Dealing with the Trade Deficit in a Floating Rate System," Brookings Papers on Economic Activity, 1:1986.

Cooper, Richard N., "The U.S. Payments Deficit and the Strong Dollar Policy Options," The U.S. Dollar—Recent Developments, Outlook, and Policy Options, Federal Reserve Bank of Kansas City, 1985

Cooper, Richard N., Rudiger Dornbusch, and James Tobin, "Three Discussion Papers," Brookings Papers on Economic Activity, 1:1985.

Council of Economic Advisers, Economic Report of the President, 1983-87.

Cox, W Michael, "A New Alternative Trade-Weighted Dollar Exchange Rate Index," Economic Review, Federal Reserve Bank of Dallas, September 1986.

de Vries, Rimmer, "The G-5 Communique: An Appraisal," statement made to Foreign Relations Committee, March 1987.

Dhar, Sanjay, "U.S. Trade with Latin America: Consequences of Financing Constraints," Quarterly Review, Federal Reserve Bank of New York, Autumn 1983.

Dornbusch, Rudiger, "The Dollar and the Exchange Rate System," statement made to Joint Economic Committee, February 21, 1986.

Data Resources, Inc., The DRI Report on U.S. Manufacturing Industries, 1984.

Elwell, Craig K. and Alfred Reifman, "The U.S. Trade Deficit: Causes, Consequences and Cures," Congressional Research Service, July 14, 1986.

Federal Reserve Bank of Boston, The International Monetary System: Forty Years after Bretton Woods, Proceedings of a Conference, May 1984.

Feldstein, Martin, "American Economic Policy and the World Economy," Foreign Policy, Summer 1985.

Feldstein, Martin, "The Budget Deficit and the Dollar," NBER Working Paper No. 1898.

Feldstein, Martin, "Budget Deficits, Tax Rules, and Real Interest Rates," NBER Working Paper No. 1970.

Fieleke, Norman S., "The Budget Deficit. Are the International Consequences Unfavorable?" New England Economic Review, Federal Reserve Bank of Boston, May/June 1984.

Fieleke, Norman S., "The Foreign Trade Deficit and American Industry" New England Economic Review, Federal Reserve Bank of Boston, July/August 1985

Frankel, Jeffrey A., "The Dazzling Dollar," Brookings Papers on Economic Activity, 1:1985.

Glick, Reuven, "Real Exchange Rates, Imperfect Information, and Economic Disturbances," Economic Review, Federal Reserve Bank of San Francisco, Fall 1986.

Hakkio, Craig S., "Interest Rates and Exchange Rates—What is the Relationship?" Economic Review, Federal Reserve Bank of Kansas City November 1986.

Hakkio, Craig S. and Bryon Higgins, "Is the United States Too Dependent on Foreign Capital?" Economic Review, Federal Reserve Bank of Kansas City, June 1985.

Hervey, Jack L., "The Internationalization of Uncle Sam," Economic Perspectives, Federal Reserve Bank of Chicago, May/June 1986.

Hervey, Jack L., and William A. Strauss, "The International Value of the Dollar: An Inflation-adjusted Index," Economic Perspectives, Federal Reserve Bank of Chicago, Jan./Feb. 1987.

Hooper, Peter, International Repercussions of the U.S. Budget Deficit, Federal Reserve Board, International Finance Discussion Paper No. 246.

Hutchison, Michael and Charles Pigott, "Budget Deficits, Exchange Rates and the Current Account: Theory and U.S. Evidence," Economic Review, Federal Reserve Bank of San Francisco, Fall 1984

Hutchison, Michael M. and Adrian W. Throop, "U.S. Budget Deficits and the Real Value of the Dollar," Economic Review, Federal Reserve Bank of San Francisco, Fall 1985.

Isard, Peter and Lois Stekler, "U.S. International Capital Flows and the Dollar," Brookings Papers on Economic Activity, 1:1985.

Ito, Takatoshi, "The Intra-Daily Exchange Rate Dynamics and Monetary Policies after the G5 Agreement," NBER Working Paper No. 2048.

Krugman, Paul R. and George N. Hatsopoulos, "The Problem in U.S. Competitiveness in Manufacturing," New England Economic Review, Federal Reserve Bank of Boston, Jan./Feb. 1987.

Krugman, Paul, Pricing to Market When the Exchange Rate Changes, NBER Working Paper No. 1926.

Krugman, Paul R., "Is the Strong Dollar Sustainable?" The U.S. Dollar—Recent Developments, Outlook, and Policy Options, Federal Reserve Bank of Kansas City, 1985.

Kubarych, Roger M., "Financing the U.S. Current Account Deficit," Quarterly Review, Federal Reserve Bank of New York, Summer 1984

Laney, Leroy O., "The Strong Dollar, the Current Account, and Federal Deficits: Cause and Effect," Economic Review, Federal Reserve Bank of Dallas, January 1984.

Laney, Leroy O., "Twin Deficits in the 1980s; What Are the Linkages?" Business Economics, April 1986.

Lawrence, Robert Z., Can America Compete?, The Brookings Institution, 1984.

Levich, Richard M., "Gauging the Evidence on Recent Movements in the Value of the Dollar," The U.S. Dollar—Recent Developments, Outlook, and Policy Options, Federal Reserve Bank of Kansas City, 1985

Lipsey, Robert E. and Irving Kravis, "The Competitiveness and Comparative Advantage of U.S. Multinationals, 1957-1983," NBER Working Paper No. 2051.

Marris, Stephen, Deficits and the Dollar: The World Economy at Risk, Institute for International Economics, December 1985.

Marris, Stephen N., "The Decline and Fall of the Dollar: Some Policy Issues," Brookings Papers on Economic Activity, 1:1985.

Marston, Richard C., Real Exchange Rates and Productivity Growth in the United States and Japan, NBER Working Paper No. 1922.

McCulloch, Rachel, "Point of View: Trade Deficits, Industrial Competitiveness, and the Japanese," California Management Review, Winter 1985.

McCulloch, Rachel and J. David Richardson, "U.S. Trade and the Dollar: Evaluating Current Policy Options," NBER conference on current trade issues, August 8, 1985.

McUsic, Molly, "U.S. Manufacturing: Any Cause for Alarm?," New England Economic Review, Federal Reserve Bank of Boston, Jan./Feb. 1987.

Meyer, Stephen A. "Trade Deficits and the Dollar: A Macroeconomic Perspective," Business Review, Federal Reserve Bank of Philadelphia, September/October 1986.

Morgan Guaranty Trust Company, "The dollar's decline: mission accomplished?," World Financial Markets, October/November 1986.

New York Stock Exchange, "U.S. International Competitiveness: Perception and Reality," August 1984.

Perna, Nicholas S., "The Shift from Manufacturing to Services: A Concerned View," New England Economic Review, Federal Reserve Bank of Boston, Jan./Feb. 1987.

Reinhart, Vincent, "Macroeconomic Influences on the U.S.-Japan Trade Imbalance," Quarterly Review, Federal Reserve Bank of New York, Spring 1986.

Rosensweig, Jeffrey A., "A New Dollar Index: Capturing a More Global Perspective," Economic Review, Federal Reserve Bank of Atlanta, June/July 1986.

Saxonhouse, Gary R., "Japan's Intractable Trade Surpluses in a New Era," Seminar Discussion Paper No. 178, University of Michigan.

Scott, Bruce R., "National Strategy for Strong U.S. Competitiveness," Harvard Business Review, March-April 1984.

Scott, Bruce R. and George C. Lodge (editors), U.S. Competitiveness in the World Economy, 1985.

Solomon, Robert, "Effects of the Strong Dollar," The U.S. Dollar—Recent Developments, Outlook, and Policy Options, Federal Reserve Bank of Kansas City, 1985.

Tatom, John A., "Domestic vs International Explanations of Recent U.S. Manufacturing Developments," Review, Federal Reserve Bank of St. Louis, April 1986.

The Report of the President's Commission on Industrial Competitiveness, January 1985.

U.S. Department of Commerce, United States Trade: Performance in 1985 and Outlook, International Trade Administration, October 1986.

Zysman, John and Laura Tyson (editors), American Industry in International Competition, 1983.

Requests for copies of GAO reports should be sent to:

U.S. General Accounting Office
Post Office Box 6015
Gaithersburg, Maryland 20877

Telephone 202-275-6241

The first five copies of each report are free. Additional copies are \$2 00 each.

There is a 25% discount on orders for 100 or more copies mailed to a single address.

Orders must be prepaid by cash or by check or money order made out to the Superintendent of Documents.

United States
General Accounting Office
Washington, D.C. 20548

Official Business
Penalty for Private Use \$300

Address Correction Requested

First-Class Mail
Postage & Fees Paid
GAO
Permit No. G100