

The United States in Debt

When the U.S. deficit on current international transactions soared to record levels during the mid-1980s, some observers perceived a grave loss of U.S. competitiveness that was “deindustrializing” America. Others warned of an imminent international financial crisis, predicting that the deficits would undermine confidence in the U.S. dollar (and in dollar-denominated assets) and induce a sharp drop in the dollar’s foreign-exchange value and a sharp rise in U.S. interest rates. The heightened interest rates would precipitate a U.S. recession that would become worldwide—a “hard landing.”¹

Thus far, the landing has been far from hard. To be sure, the weighted average foreign-exchange value of the dollar did decline fairly steadily and significantly in real terms (adjusted for U.S. minus foreign inflation) during the years 1985 to 1987. But U.S. interest rates also generally declined, rather than rose, between the beginning and the end of this period, and both the U.S. and the world economies grew at a healthy pace. Between the end of 1987 and this writing, the foreign-exchange value of the dollar has changed relatively little, in spite of continued large U.S. current-account deficits; in fact, several central banks have on occasion sold large volumes of dollars in an effort to prevent the dollar from *rising* in the foreign-exchange markets! The economic expansion has continued, and the specter of a hard landing is invoked much less frequently in economic discourse.

The nonoccurrence to date of a hard landing does not prove that one will not take place. And even without a hard landing, the increasing U.S. indebtedness generated by the nation’s current-account deficits will impose a growing burden on the U.S. economy. This article examines the growth of U.S. indebtedness to the rest of the world and the underlying causes, as well as the consequences and some proposed remedies.

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The Magnitude of U.S. Indebtedness

As can be seen in Table 1, as recently as 1983 the United States was a net creditor in the community of nations, with assets abroad amounting to \$89 billion more than foreign assets in this country. The transition from creditor to debtor status was swift and dramatic. The nation had attained its peak as a creditor in 1981, with a positive net international investment position of \$141 billion. By the end of 1985 net indebtedness amounted to \$117 billion, and by 1989 to \$664 billion.

The change in the international investment position is attributable partly to asset purchases and sales (that is, capital flows) and partly to changes in the value of the assets that are held. To illustrate, Table 2 shows that capital flows comprised by far the largest

component of the change in the U.S. position during 1989; foreigners loaned or invested about \$215 billion in the United States, \$88 billion more than U.S. residents invested in foreign countries. Aside from such capital flows, rising securities prices increased the value of stocks and bonds held both in the United States and abroad, with foreign assets in the United States increasing by \$53 billion more than U.S. assets abroad on this count. Also, changes in the dollar exchange rates of other currencies somewhat altered the dollar value of foreign-currency-denominated stocks and bonds.

This measurement of the U.S. position may be substantially in error, as the Commerce Department, the source of the data, points out. On the one hand, some U.S. claims on foreigners are understated because of certain measurement conventions or difficulties. For instance, U.S. official gold holdings—deemed, like U.S. holdings of foreign currency, to be a claim on foreigners—are valued at a most conservative \$42.22 per ounce. Revaluing this gold stock at \$400 per ounce—roughly the market price at this writing—would raise the reported value of U.S. assets abroad at year-end 1989 by nearly \$94 billion. Similarly, U.S. direct investments abroad are carried at their original book value rather than at their higher current market value.

On the other hand, other measurement problems probably result in an understatement of the value of foreign assets in the United States. In particular, for years the United States has been receiving from abroad very large net receipts that cannot be traced to specific transactions—the so-called “statistical discrepancy” in the balance of payments. Some, perhaps most, of these net receipts—which totaled \$22 billion in 1989—may well have been generated by “capital-account” transactions, particularly by foreign investment in the United States. Thus, some understatement of foreign assets in the United States seems likely. Such an understatement would, of course, tend to lower the reported net indebtedness of the United States below its true value, while the likely understatement of U.S. assets abroad would have the opposite effect.² On balance, it is hard to say whether the published measure of the U.S. net international investment position is significantly in error. Some considerations suggest an understatement, others an overstatement.

The transition of the United States from creditor to debtor status is not to be explained by transactions with a particular country or region. On the contrary, the U.S. position turned more negative (or less pos-

Table 1
International Investment Position of the United States at Year End, 1970–89
Billions of Dollars

Year	U.S. Assets Abroad (1)	Foreign Assets in the United States (2)	Net International Investment Position of the United States (column 1 less column 2) (3)
1970	165.4	106.9	58.5
1971	179.0	133.5	45.5
1972	198.7	161.7	37.0
1973	222.4	174.5	47.9
1974	255.7	197.0	58.7
1975	295.1	220.9	74.2
1976	347.2	263.6	83.6
1977	379.1	306.4	72.7
1978	447.8	371.7	76.1
1979	510.6	416.1	94.5
1980	607.1	500.8	106.3
1981	719.6	578.7	140.9
1982	824.8	688.1	136.7
1983	873.5	784.5	89.0
1984	895.9	898.1	-2.2
1985	949.7	1,066.9	-117.2
1986	1,073.4	1,347.1	-273.7
1987	1,175.9	1,554.0	-378.1
1988	1,265.6	1,796.7	-531.1
1989 ^P	1,412.5	2,076.3	-663.7

Note: Detail may not add to totals shown because of rounding.

^PPreliminary.

Source: *Survey of Current Business*, vol. 66, June 1986, p. 28; vol. 69, June 1989, p. 43; vol. 70, June 1990, p. 59.

Table 2
The U.S. Net International Investment Position: Summary of Changes during 1989
 Billions of Dollars

	U.S. Assets Abroad (1)	Foreign Assets in the United States (2)	Net International Investment Position of the United States (column 1 less column 2) (3)
Position at End of 1988	1,265.6	1,796.7	-531.1
Changes in 1989 Attributable to:			
Capital Flows	127.1	214.7	-87.6
Price Changes	13.3	66.7	-53.4
Exchange-Rate Changes	-2.3	-1.3	-1.0
Other Changes	8.9	-0.5	9.4
Total Changes	146.9	279.6	-132.7
Position at End of 1989 ^P	1,412.5	2,076.3	-663.7

Note: Detail may not add to totals shown because of rounding.

^PPreliminary.

Source: *Survey of Current Business*, vol. 70, June 1990, p. 55.

itive) with all major areas for which U.S. data are regularly published. As shown by Table 3, through 1988 the biggest swing was with Western Europe.

If the United States has become a sizable net debtor, which countries are the creditors? Unfortunately, data on net international investment position—or “net external assets,” as the measure is generally called outside the United States—are officially published by only a few countries, and the comparability of these national measures is doubtful. Some data published by the International Monetary Fund (IMF) for the seven major industrial democracies suggest that Japan, Germany, and the United Kingdom have large net creditor positions (IMF 1988, p. 89). Other major net creditors probably include Switzerland and some members of the Organization of Petroleum Exporting Countries, especially Saudi Arabia and Iraq (Deutsche Bundesbank 1986, p. 30).

Once the United States became a net debtor, it became fashionable to compare its indebtedness with that of the less developed countries. U.S. indebtedness, it was widely reported, had come to exceed the indebtedness even of Brazil, the leading debtor among the developing nations. The comparison, however, was not valid. For one thing, the gross debt of the less developed countries was being compared with U.S. debt net of U.S. assets abroad. Such comparison is sometimes defended on the grounds that the external assets of developing countries typically are relatively small or, when privately owned, are

beyond the control or influence of developing-country governments. The argument has merit, but to ignore all such assets is extreme.³

If measured gross, on roughly the same basis as less developed country debt is measured, the U.S. external debt came to \$753 billion at the end of 1985, the year during which the nation became a net

Table 3
*Net International Investment Position of
 the United States by Area at Year End,
 1981 and 1988*

Billions of Dollars

Area	1981	1988 ^P	Change
Western Europe	-51.8	-436.9	-385.0
Japan	-1.7	-128.5	-126.8
Canada	66.9	53.5	-13.4
Latin American Republics and Other Western Hemisphere	99.3	-23.6	-122.9
Other	28.3	2.9	-25.4
Total	140.9	-532.5	-673.5

Note: At this writing data for the geographic areas listed are not available for 1989. The data shown were obtained in 1989, and the total in the column for 1988 differs somewhat from the total shown in Tables 1 and 2, which could be compiled from a 1990 source. In addition, detail may not add to totals shown because of rounding.

^PPreliminary

Source: *Survey of Current Business*, vol. 69, June 1989, p. 42; U.S. Commerce Department staff.

debtor. This amount greatly exceeded the gross external debt of any less developed country. Indeed, the total external debt of all the capital-importing developing countries then amounted to only about 1¼ times the U.S. debt.⁴

In any event, by any conventional measure U.S. indebtedness increased dramatically. We shall examine some explanations for the U.S. external deficit and then consider the possible consequences of the deficit. Explanations can be classified into those that emphasize "supply-side" factors, "demand-side" factors, or both.

Supply-Side Explanations: Price Competitiveness

The large trade and current-account deficits that have ballooned U.S. net debt (Table 4) are often taken to signify a loss of U.S. "competitiveness." What is meant by competitiveness is seldom spelled out, but the concern is commonly with factors that underlie the aggregate supply of U.S. goods—factors such as technology, capital formation, research and development, and the quality of management and the labor force. Thus, to enhance U.S. competitiveness, action has often been proposed to upgrade the education of the work force (especially in math and science), to grant more favorable tax treatment to investment in capital equipment, to relax the antitrust laws so that firms could pool their research efforts, to provide better patent protection for new inventions, and so on.

Analyses of supply-side competition, or of competition among suppliers, commonly divide it into two broad categories: price competition and nonprice competition. Price competition is the subject of this section.

Arguably the best single index of a nation's changing overall price competitiveness is the change in its real exchange rate, that is, the change in its average price level relative to the average foreign price level after taking into account the change in the average foreign-currency price of its currency. Thus, a nation's price competitiveness will be impaired by a rise in its domestic prices relative to foreign prices, unless an offsetting decline occurs in the foreign-currency price of its currency.

Although analysts differ on precisely how to measure the real exchange rate, all widely used measures show big swings in U.S. price competitiveness during the period of deterioration in the U.S.

trade and current-account balances. In general, the indexes suggest that the United States lost much price competitiveness between 1980 and 1985, but then rapidly regained the lost ground. For example, the index plotted as a solid line in Chart 1 shows a rise in U.S. relative prices of 37 percent (after incorporating nominal exchange-rate change) from 1980 to 1985, followed by a decline to approximately the 1980 level by the end of 1987. The "nominal" index plotted in the chart represents only the change in the foreign-currency price of the dollar. Clearly, it was this nominal exchange-rate change, rather than changes in domestic or foreign prices, that accounted for most of the large swings in U.S. overall price competitiveness over this period.

Table 4
U.S. Balances on Selected Components of International Current Account Transactions, 1970–89

Billions of Dollars; (–) signifies deficit

Year	Balance on Merchandise Trade (1)	Balance on Services and Income (2)	Balance on Unilateral Transfers (3)	Balance on Current Account (Column 1 + 2 + 3) (4)
1970	2.6	5.9	–6.2	2.3
1971	–2.3	8.2	–7.4	–1.4
1972	–6.4	9.2	–8.5	–5.8
1973	.9	13.1	–6.9	7.1
1974	–5.5	16.7	–9.2 ^a	2.0
1975	8.9	16.3	–7.1	18.1
1976	–9.5	19.4	–5.7	4.2
1977	–31.1	21.8	–5.2	–14.5
1978	–33.9	24.3	–5.8	–15.4
1979	–27.5	33.1	–6.6	–1.0
1980	–25.5	34.9	–8.3	1.1
1981	–28.0	43.2	–8.3 ^b	6.9
1982	–36.4	40.3	–9.8	–5.9
1983	–67.1	36.9	–10.0	–40.1
1984	–112.5	26.1	–12.6	–99.0
1985	–122.1	15.3	–15.5	–122.3
1986	–145.1	15.7	–16.0	–145.4
1987	–159.5	11.8	–14.6	–162.3
1988	–127.0	13.1	–15.0	–128.9
1989	–114.9	19.6	–14.7	–110.0

Note: Detail may not add to totals shown because of rounding.

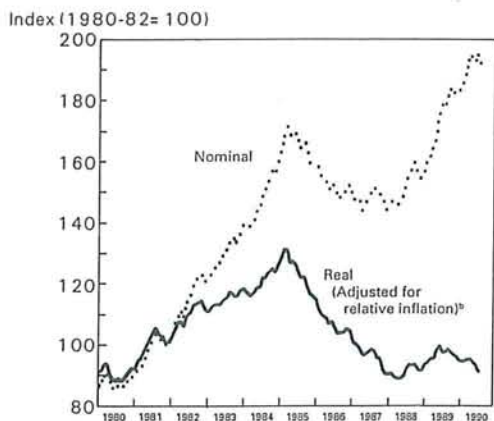
^aIncludes extraordinary U.S. Government transactions with India.

^bBreak in series. Beginning with data for 1981, private remittances to foreign students in the U.S. are included.

Source: *Survey of Current Business*, vol. 70, June 1990, pp. 75–76.

Chart 1

*Weighted Average Foreign Exchange Value^a
of the U.S. Dollar, 1980-90*



^a Measured in terms of 40 other currencies weighted according to manufactures trade; based on monthly averages of daily rates.
^b Inflation measured in terms of wholesale prices in manufactures excluding food and fuel.
Source: Morgan Guaranty Trust Company.

It is widely agreed that the loss of U.S. price competitiveness between 1980 and 1985 contributed substantially to the increase in the U.S. trade deficit. But what caused the loss of price competitiveness? A number of factors could be responsible, not all of them supply-side in nature. Here a supply-side factor—productivity change—is considered; other factors are discussed in a following section.

Changes in the productiveness of a country's resources can have an important influence on the country's price competitiveness. If productivity rises, other things remaining equal, the money cost and price of a unit of output can fall. In evaluating overall productivity, one should consult a measure of the output yielded by a unit of all productive factors combined, including labor, land, and capital. But such measures of total factor productivity are extraordinarily difficult to construct. Consequently, international productivity comparisons are commonly based on indexes of output per input of labor in manufacturing, such as those in Table 5.

Do these indexes suggest that lagging productivity growth was responsible for the decline in U.S. price competitiveness between 1980 and 1985? Among the "Big Seven" countries listed individually,

the United States ranked in the middle in productivity performance over this period, surpassing Canada, France, and West Germany but lagging behind Japan, Italy, and the United Kingdom. But how did the United States perform by comparison with its major industrial competitors as a group? As shown in the last column, eleven foreign industrial countries achieved an average increase of about 25 percent over the years 1980 to 1985, compared to an increase of nearly 21½ percent in the United States. This differential of some 3½ percent falls far short of accounting for the 37 percent deterioration in overall U.S. price competitiveness over this period.

In fact the U.S. lag in labor productivity growth was far greater during the 1970s than during the 1980s when the U.S. trade deficit increased so greatly. Between 1970 and 1975 labor productivity in manufacturing rose by 15 percent in the United States and by 26 percent in the eleven foreign industrial countries. And between 1975 and 1980 the increase was only 10 percent in the United States and 24 percent in the eleven other nations.

It is clear that the loss of U.S. price competitiveness during the period 1980–85 should not be attributed to the relative U.S. record on labor productivity in manufacturing over these years. To be sure, higher U.S. productivity growth could, in principle, have yielded lower U.S. inflation and, other things being equal, a smaller rise in the U.S. real exchange rate than that shown in Chart 1. The relative U.S. record on labor productivity in manufacturing, however, was extremely good during the 1980–85 period by comparison with the previous decade.

Supply-Side Explanations: Nonprice Considerations

Supply-side explanations of the U.S. trade and current-account deficits relate not only to the price competitiveness of U.S. suppliers but also to non-price competition. U.S. firms were often said to have lost competitiveness because their products had become inferior in quality to foreign brands. Automobiles provide a good illustration. During the 1980s, surveys showed that U.S. consumers and engineers both considered foreign-brand cars generally to be of higher quality than U.S. cars. Consumers buying foreign cars were more likely to be satisfied with their purchase and to report a low frequency of repairs than were the buyers of U.S. cars.⁵ In addition, U.S. firms were criticized for failing to tailor products to

Table 5
Output per Labor Hour in Manufacturing in Selected Industrial Countries, 1970–88
 Indexes: 1980 = 100

Year	Country							
	United States	Canada	Japan	France	West Germany	Italy	United Kingdom	Eleven Countries ^a
1970	78.9	77.0	52.8	64.6	65.6	57.2	78.8	64.0
1971	83.2	82.4	55.9	68.1	68.1	58.2	82.6	67.5
1972	86.4	86.5	61.4	71.0	72.7	63.1	87.2	72.2
1973	91.1	92.0	67.7	75.8	77.3	68.3	93.6	78.0
1974	88.8	93.4	70.5	77.4	80.5	73.1	95.2	80.7
1975	91.1	90.2	71.5	80.2	83.0	70.6	93.1	80.8
1976	95.4	96.5	76.9	85.4	88.8	80.2	97.3	86.5
1977	98.3	101.8	81.5	90.4	92.1	81.9	98.1	90.3
1978	99.9	103.0	88.0	94.6	94.9	87.2	99.5	94.2
1979	99.9	103.9	93.6	99.2	99.6	95.5	100.6	98.3
1980	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1981	102.3	104.8	103.7	103.0	102.2	102.7	105.1	103.7
1982	104.8	100.1	110.0	110.3	103.7	105.2	111.4	106.6
1983	110.3	107.3	116.0	113.1	109.8	110.8	120.8	113.2
1984	116.2	116.5	124.3	115.3	113.9	121.9	127.5	120.2
1985	121.4	119.5	131.3	120.0	118.2	128.4	131.6	125.1
1986	126.1	119.9	133.4	122.2	118.1	129.6	136.0	126.6
1987	130.7	122.7	143.8	123.7	119.6	132.9	144.8	131.9
1988	133.7	126.6	154.8	130.3	125.1	136.9	152.0	138.6

Note: The data relate to all employed persons, including the self-employed, in the United States and Canada, and to all employees (wage and salary earners) in the other countries. Although the indexes relate output to the hours of persons employed in manufacturing, they do not measure the specific contribution of labor as a single factor of production. Rather, they reflect the joint effects of many influences, including new technology, capital investment, capacity utilization, energy use, and managerial skills, as well as the skills and efforts of the work force.

^a A trade-weighted average of Canada, Japan, France, West Germany, Italy, the United Kingdom, Belgium, Denmark, the Netherlands, Norway, and Sweden, but excluding in 1988 Belgium and the Netherlands, for which data are not available at this writing. The weights reflect the relative importance of each country as a U.S. manufacturing trade competitor as of 1980.

Source: *Monthly Labor Review*, vol. 13, April 1990, p. 98; staff of U.S. Bureau of Labor Statistics.

the preferences of foreign purchasers and for failing to mount aggressive, long-term marketing efforts in foreign lands.

Because such reports are so common, it may well be that U.S. competitiveness did lag in terms of quality and other nonprice considerations. How much weight to attach to these various nonprice dimensions is impossible to quantify with any precision. However, other evidence suggests that, whatever the shortcomings of U.S. firms, the worldwide performance of U.S. management did not degenerate as the U.S. trade deficit began to mushroom early in the 1980s.

Some of the most revealing evidence on the relative performance of U.S. management has to do with the record of multinational firms headquartered in the United States. By and large, management has more scope to influence the operations of a multinational firm than a national firm. With activities in

more than one country, the multinational firm is not chained to local customs, regulations, or labor force. Over time management can shift activities of the firm from one nation to another as circumstances warrant, taking advantage of the best that each nation has to offer for the overall success of the firm. Thus, one may gain more insight into the international competitiveness of U.S. management by examining the performance of U.S.-based multinationals than by examining only the performance of U.S. firms.

Summary data on performance in export markets for manufactures are presented in Table 6. As shown by the bottom line, the overall share of U.S.-based multinationals—including exports by U.S. parents as well as by their majority-owned foreign affiliates (MOFAs)—increased somewhat between 1966 and 1984, the latest year for which data are available at this writing. From these numbers, one might argue that U.S. management was holding its ground in the

Table 6
U.S. Shares of the Value of World^a
Manufactures Exports
 Percent

	1966	1977	1982	1983	1984
United States	17.5	13.3	14.3	13.7	14.0
U.S. Multinationals					
Parents	11.0	9.2	9.5	9.1	9.2
MOFAs ^b	8.2	9.7	9.7	9.9	10.3
Parents and MOFAs	17.7	17.6	17.7	17.7	18.1

^a The "world" here is defined as all market economies.

^b Exports by majority-owned foreign affiliates (MOFAs) as a percentage of exports by all countries except the United States.

Source: Robert E. Lipsey and Irving B. Kravis, "The Competitiveness and Comparative Advantage of U.S. Multinationals, 1957-1984," *Banca Nazionale del Lavoro Quarterly Review*, vol. 161, June 1987, p. 151.

international arena. By comparison, the first line shows that all U.S. manufactured exports, expressed as a share of the world total, declined from 1966 to 1977, rose from 1977 to 1982, and then declined slightly between 1982 and 1984 (a period when the U.S. trade deficit also increased sharply). Thus, the United States as a nation experienced some loss in competitiveness by this indicator between 1982 and 1984, but the rising market share of U.S. multinationals tends to exonerate U.S. management. It is especially interesting that the U.S. multinationals maintained their market share between 1982 and 1984 by raising the share of their MOFAs to compensate for a decline on the part of the U.S. parents.

Competitiveness and Aggregate Supply

Perhaps the best summary indicator of a nation's overall supply-side competitiveness is the share of world output that the nation supplies. Measures of this share are not precise; it is difficult to construct accurate comparisons of the outputs of different countries, partly because the composition and price structure of output vary from country to country. Nonetheless, such comparisons are regularly made by the Organization for Economic Cooperation and Development (OECD), whose membership includes twenty-four countries, nearly all of them industrialized.

In Table 7, which draws on the OECD data, it can be seen that the United States held its own with respect to gross output between 1981 and 1987, a period during which the U.S. trade balance registered a huge decline. Thus, at least by comparison with other countries, the United States did not display a serious aggregate "supply-side" problem during these years of deterioration in its trade balance.

If the supply side cannot be held responsible for the U.S. external deficits, what is to blame? After all, it is clear that the nation lost overall price competitiveness as the deficits began to increase. The answer may lie in the relationship between aggregate U.S. supply and demand and, more precisely, in the forces that influence that relationship.

Aggregate Supply and Demand

If the residents of a nation demand, or absorb, more output than the nation is supplying, the gap is filled by net imports from abroad. Although the output supplied by the nation may be growing rapidly, total demand within the nation may be growing even faster, so that the nation's trade and current-account deficits with the rest of the world expand

Table 7
U.S. and OECD Gross Domestic Product
and U.S. Trade Balance, 1981-89

Year	U.S. GDP as Percent of OECD GDP		U.S. Merchandise Trade Balance (Billions of Dollars; Balance-of- Payments Basis)
	At Current Prices and Exchange Rates	At 1985 Prices and Exchange Rates	
1981	38	45	-28.0
1982	40	44	-36.4
1983	42	44	-67.1
1984	44	45	-112.5
1985	45	45	-122.1
1986	39	45	-145.1
1987	36	45	-159.5
1988	35	45	-127.0
1989	36	45	-114.9

Source: *Survey of Current Business*, vol. 70, June 1990, pp. 76-77; Organization for Economic Cooperation and Development, *National Accounts, 1960-88*, Vol. I pp. 123, 127 and 131 (Paris: OECD, 1990); and *Main Economic Indicators*, vol. 90, April 1990, p. 172.

Table 8
Real GNP and Real Domestic Demand in the United States and Other OECD Countries, 1981-89

Year	Real GNP				Real Domestic Demand			
	Level (1980 = 100)		Percent Change from Preceding Year		Level (1980 = 100)		Percent Change from Preceding Year	
	United States	Other OECD	United States	Other OECD	United States	Other OECD	United States	Other OECD
1981	101.9	101.5	1.9	1.5	102.2	100.0	2.2	.0
1982	99.3	102.8	-2.5	1.3	100.3	101.0	-1.9	1.0
1983	102.9	105.1	3.6	2.2	105.4	102.5	5.1	1.5
1984	109.9	108.9	6.8	3.6	114.5	105.5	8.7	2.9
1985	113.5	112.6	3.4	3.4	118.9	108.7	3.8	3.1
1986	116.7	115.6	2.7	2.6	122.9	112.9	3.3	3.8
1987	120.9	119.6	3.7	3.5	126.8	117.7	3.2	4.4
1988	126.3	124.9	4.4	4.4	131.0	124.3	3.3	5.4
1989	130.0	129.8	3.0	3.9	134.1	129.6	2.4	4.3

Source: *OECD Economic Outlook*, vol. 47, June 1990, pp. 181 and 188; *OECD Economic Outlook*, vol. 47, *Statistics on Microcomputer Diskette*, June 1990.

(unless there are offsetting price changes, such as import price reductions). To stem the growth of the deficit, the nation must retard the growth of its demand (that is, its absorption or expenditure) or accelerate the growth of its output.

The United States in the mid-1980s was such a nation. The data in Table 8 confirm that domestic demand grew faster than gross national product in the United States in every year from 1983 through 1986, a period during which dramatic increases occurred in the country's deficits on international trade and current account. Note that during most of this period U.S. output grew faster than output in other OECD countries as a group; however, U.S. demand grew even faster by comparison with demand in other OECD countries.

It seems, then, that the U.S. external deficits are not attributable to "supply-side" problems, certainly not supply-side problems alone. Demand, or more precisely, the changing relationship between demand and supply, seems a more promising subject for analysis. In what follows, some explanations involving both demand and supply are considered. Foreign as well as U.S. demand and supply are relevant, since some of what the United States supplies goes to satisfy foreign demand, while some of U.S. demand is satisfied by foreign supply.

Unfair Foreign Trading Practices

One explanation often advanced for the U.S. trade deficit is unfair foreign trading practices; the playing field is said to be "tilted" against the United States. This explanation involves references to both demand and supply. Although it is foreign rather than U.S. demand and supply that have allegedly been manipulated, the impact would have been to increase U.S. net imports. On the supply side, other nations have been charged with subsidizing or "dumping" their exports in world markets, thus lowering their supply prices and stealing both U.S. and foreign markets from U.S. suppliers. On the demand side, other nations are accused of imposing barriers against U.S. exports, thereby reducing demand for them.

To be sure, unfair trading actions do occur, and national governments, including the U.S. government, commonly undertake to shield firms within their borders against injury from such practices. In the United States, the law provides U.S. industries with remedies against import competition from dumped or subsidized merchandise, as well as against other practices deemed unfair. Dumping is defined as the sale of foreign merchandise at prices below those charged in the foreign producers' home market, or below the foreign cost of production. The antidumping statutes provide for the imposition of

antidumping duties to offset such price-cutting when a determination is made that a domestic industry is being materially injured—or threatened with such injury—by the dumped imports, or that the establishment of the industry is being materially retarded by such imports. Similarly, “countervailing” duties are imposed to offset foreign subsidies upon a determination by U.S. authorities that, because of subsidized import competition, a U.S. industry is being materially injured—or threatened with such injury—or that the establishment of the industry is being materially retarded.⁶

During 1987, when the United States incurred its largest trade deficit ever, the nation imposed new antidumping duties on fifteen products from twenty-six countries, and imposed new countervailing duties on seven products from twelve countries. Other actions were taken against practices that the United States deemed unfair on grounds other than those covered under the antidumping or countervailing duty laws (U.S. International Trade Commission 1988, pp. 5-4-5-11). Therefore, while unfair foreign trading practices may have operated to increase U.S. imports, it is plain that U.S. firms availed themselves of the provisions of U.S. law in order to stem such increases. The burden of proof rests with those who suggest that U.S. imports were bloated by unfair foreign trading practices in spite of the legal remedies that U.S. firms can invoke against such practices. Unfair foreign trading practices were to be found long before the U.S. trade deficit began to surge in the early 1980s, and it remains to be shown that those practices intensified so as to contribute substantially to the deficit.

Another difficulty with attributing the increased U.S. deficit to unfair foreign trading practices is that the increase was distributed widely across both commodity categories and geographic areas. This fact is documented in Tables 9 and 10. It seems most unlikely that virtually all major trading partners of the United States would simultaneously have intensified unfair practices in their trade with the nation.

Table 9 presents aggregate data on trade between the United States and each of its five leading trade partners, listed in order of magnitude of total U.S. trade with them in 1987. Similar data are shown for OPEC and for the rest of the world. Together, the five leading trade partners accounted for 53 percent of U.S. international trade (exports plus imports) in 1987; if OPEC is added, that share rises to 59 percent. Clearly, the U.S. trade balance deteriorated markedly from 1980 to 1987 with every listed area but OPEC,

from which U.S. imports of petroleum declined dramatically.

To identify the areas with which the U.S. trade position deteriorated more than proportionately, the last column of the table shows what the value of U.S. exports and imports with each area would have been in 1987 if each area had retained the same percent-

Table 9
U.S. Merchandise Trade, by Major Trading Partners or Areas, 1980 and 1987
Billions of Dollars

Country or Area	1980	1987	
		Actual	Allocated on basis of 1980 shares ^a
Canada			
U.S. exports	41.6	62.0	46.5
U.S. imports	42.9	73.6	70.4
Balance	-1.3	-11.6	-23.9
Japan			
U.S. exports	20.8	27.6	23.2
U.S. imports	31.2	84.6	51.2
Balance	-10.4	-57.0	-28.0
West Germany			
U.S. exports	11.4	11.5	12.8
U.S. imports	11.7	26.9	19.2
Balance	-.2	-15.4	-6.4
Mexico			
U.S. exports	15.2	14.6	17.0
U.S. imports	12.6	20.3	20.6
Balance	2.7	-5.7	-3.6
United Kingdom			
U.S. exports	12.8	13.8	14.3
U.S. imports	9.8	17.2	16.1
Balance	3.0	-3.5	-1.8
Organization of Petroleum Exporting Countries			
U.S. exports	17.4	10.7	19.4
U.S. imports	55.6	24.4	91.2
Balance	-38.2	-13.7	-71.8
Rest of the world			
U.S. exports	105.1	110.1	117.1
U.S. imports	86.0	162.7	141.0
Balance	19.1	-52.6	-23.8
Total, all areas			
U.S. exports	224.3	250.3	250.3
U.S. imports	249.8	409.8	409.8
Balance	-25.5	-159.5	-159.5

Note: Detail may not add to totals shown because of rounding.

^aEach area is allocated the same fraction of total 1987 U.S. exports and imports as in 1980.

Source: *Survey of Current Business*, vol. 70, June 1990, pp. 86-88.

ages of total U.S. exports and imports as in 1980. Comparison of the last two columns reveals that the U.S. trade balance worsened not only actually, but disproportionately (the 1987 "actual" exceeds the "allocated"), with all listed areas except OPEC and Canada. While the greatest actual deterioration was with the "rest of the world," the greatest disproportionate deterioration, amounting to \$29 billion, was with Japan, with the rest of the world a very close second.

The deterioration in the U.S. trade balance was distributed widely across commodity categories as well as across geographic areas. As indicated in Table 10, aside from the "all other" category, the balance worsened between 1980 and 1987 in every major commodity category except industrial supplies and materials, a category influenced by the decline in oil imports. More than proportionate deteriorations occurred in foods, feeds, and beverages, in capital goods, in automotive vehicles and parts, and in consumer goods, as the actual 1987 deficit was larger for each category (or the actual 1987 surplus was smaller) than it would have been if the category had accounted for the same percentage of total exports and imports as in 1980. (See last two columns of Table 10.)

Thus, the pervasiveness of the deterioration in the U.S. trade balance makes it unlikely that unfair foreign trading practices played a major role. Does this conclusion hold even for U.S. trade with Japan? The issue is raised most often with regard to Japan, partly because the U.S. deficit with that nation increased so sharply and amounted to more than two-fifths of the total U.S. deficit in 1989. While precise explanation of trade flows is very difficult, quantitative studies have concluded that the increase in the U.S. deficit with Japan was attributable mainly, or perhaps fully, to factors such as changes in prices, incomes, and the yen-dollar exchange rate. Any impact of unfair trading practices was adjudged to be decidedly secondary (Bergstrand 1986; Bergsten and Cline 1985, pp. 45-46).

Japan's record is not without blemish, however. In particular, evidence has been marshaled that Japan has offered some formidable "invisible" barriers to international trade. An invisible barrier is a system or regulation that applies to both domestic and foreign producers, but that works, perhaps unintentionally, to reduce the share of imports in domestic consumption. Government procurement policies, the wholesale and retail distribution systems, the setting of product standards, and the testing of products

Table 10
U.S. Merchandise Trade, by Major End-Use Category, 1980 and 1987
Billions of Dollars

End-Use Category	1980	1987	
		Actual	Allocated on basis of 1980 ^a
Food, feeds, and beverages			
Exports	36.4	25.3	40.6
Imports	18.5	24.8	30.4
Balance	17.9	.4	10.2
Industrial supplies and materials			
Exports	72.3	70.0	80.7
Imports	132.3	113.7	217.0
Balance	-60.0	-43.8	-136.3
Capital goods, except automotive			
Exports	76.3	92.4	85.1
Imports	31.4	85.1	51.6
Balance	44.8	7.2	33.5
Automotive vehicles, parts, and engines			
Exports	17.4	28.1	19.4
Imports	28.1	85.2	46.0
Balance	-10.7	-57.0	-26.7
Consumer goods (nonfood), except automotive			
Exports	17.7	20.3	19.7
Imports	34.2	88.8	56.1
Balance	-16.5	-68.5	-36.4
All other, including balance-of-payments adjustments			
Exports	4.2	14.3	4.7
Imports	5.2	12.1	8.6
Balance	-1.0	2.2	-3.9
All categories			
Exports	224.3	250.3	250.3
Imports	249.8	409.8	409.8
Balance	-25.5	-159.5	-159.5

Note: Detail may not add to totals shown because of rounding.

^aEach category is allocated the same fraction of total 1987 U.S. exports and imports as in 1980.

Source: *Survey of Current Business*, vol. 70, June 1990, pp. 90-92.

against these standards have commonly been alleged to constitute formidable invisible barriers in Japan. According to one investigation, if Japan's invisible barriers had been reduced to levels corresponding to those in the United States and the European Economic Community in the early 1980s, Japan's manufactured imports might have increased by 27 percent (equivalent to a rise of 7 percent in the country's total

imports), with at least half of the increased imports coming from the United States. At the same time, the investigation points out that such an increase would be far too small to eliminate the U.S. trade deficit with Japan. Thus, the conclusion remains that the deficit was generated mainly, if not totally, by causes other than unfair trading practices (Christelow 1985-86).

If unfair foreign trading practices are an improbable explanation of the U.S. trade and current-account deficits, what other explanations might be more convincing?

Probable Causes of the U.S. Trade and Current-Account Deficits

In its 1985 annual report (pp. 102-103), the Council of Economic Advisers identified three factors as the *immediate* causes of the U.S. trade deficit: (1) the appreciation of the dollar in the foreign-exchange markets after mid-1980; (2) the more rapid expansion of real income and demand in the United States than in the rest of the world after 1982; (3) the reduced demand for imports by the less developed countries that began to experience severe difficulty in servicing their debt and in obtaining new loans after mid-1982. Subsequent analyses have commonly cited the same factors. The weight of the evidence suggests that the first of these three factors accounted for more than half of the increased deficit, with the second factor accounting for perhaps one third, and other factors accounting for the balance (Hooper and Mann 1987, pp. 41-42, 95-96).

The roles played by dollar appreciation and by rapid U.S. demand growth have already been described. But what explains these factors themselves?

The dollar's value will rise in the foreign-exchange markets if the demand for dollars exceeds the supply at prevailing exchange rates. During the early 1980s, one important development that led to increased demand for dollars, relative to the supply, was an increase in net borrowing from abroad by U.S. residents. Foreign-currency balances were exchanged into dollar balances to accommodate this increase in U.S. borrowing, thereby bidding up the price of the dollar. The increased U.S. borrowing was caused largely by changes in federal fiscal policy, especially the shift toward deficit in the budget, which occurred at a time when U.S. monetary policy was relatively restrictive.

The key role played by government fiscal policy in inducing borrowing from abroad is suggested by

Table 11
Major Categories of Saving and Investment as a Percentage of GNP for the United States, 1970-90

Year	Gross Private Saving + (1)	Government Saving + (2)	Net Investment (Lending) by Foreigners + (3)	Gross Private Domestic Investment = (4)
1970	16.2	-1.0	-5	14.7
1971	17.3	-1.8	-1	15.6
1972	16.8	-3	.2	16.7
1973	18.0	.6	-6	17.6
1974	17.3	-3	-4	16.3
1975	19.0	-4.1	-1.4	13.7
1976	18.0	-2.2	-5	15.6
1977	17.8	-1.0	.4	17.3
1978	18.2	.0	.5	18.5
1979	17.8	.5	-1	18.1
1980	17.5	-1.3	-5	16.0
1981	18.0	-1.0	-3	16.9
1982	17.6	-3.5	.0	14.1
1983	17.4	-3.8	1.0	14.7
1984	17.9	-2.8	2.4	17.6
1985	16.6	-3.3	2.8	16.0
1986	15.8	-3.4	3.2	15.6
1987	14.7	-2.4	3.3	15.5
1988	15.1	-2.0	2.4	15.4
1989	15.4	-2.0	1.8	14.8
1990 ^a	15.3	-2.5	1.5	13.9

Note: Detail may not add to totals shown because of statistical discrepancy.

^aFirst quarter.

Source: Board of Governors of the Federal Reserve System, Fame Data Base.

an important accounting relationship: private domestic investment can be funded out of either the country's private saving or government saving, or out of funds loaned by foreigners. If government saving decreases without a compensating increase in private saving, private investors must tap foreign saving more heavily if they are to sustain their outlays.

The relative magnitudes involved in this accounting relationship for the United States are shown in Table 11, where private domestic investment in the fourth column is equal to the sum of its sources of financing, itemized in the first three columns. A negative number in one of the first three columns means that saving is being absorbed, on balance,

rather than being made available for private domestic investment. Thus, in 1975 foreigners borrowed from current U.S. saving, rather than lending out of their own saving. Government in the United States also borrowed to finance a deficit in 1975; consequently, out of private saving amounting to 19 percent of GNP, only 13.7 percent was left for private investment within the United States (after adjustment for problems of measurement, known as the statistical discrepancy).

In 1982 the government deficit increased sharply in relation to GNP and then remained large by historical standards through the remainder of the 1980s (especially through 1986). Over the same period, private saving as a percentage of GNP declined, rather than rising to compensate for the greater government dissaving. Thus, from 1982 through 1987 private investment was increasingly financed by U.S. borrowing from abroad, as can be seen in Table 11. Such borrowing from abroad allowed total U.S. demand, or spending, to increase faster than U.S. output.

This net borrowing from abroad, it should be noted, is essentially the same as the current-account deficit in the U.S. balance of payments. Although the government deficit and the current-account deficit are thus related in an accounting sense, the sizes of the two deficits can still vary independently of each

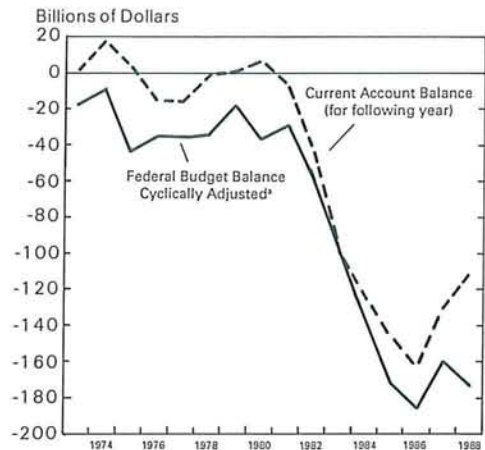
From 1982 through 1987 private investment was increasingly financed by U.S. borrowing from abroad, allowing U.S. demand to increase faster than U.S. output.

other, and on occasion inverse variation takes place. For example, from 1971 to 1972 the government deficit diminished while net borrowing from foreigners (the current-account deficit) expanded.

Such inverse variation is not likely when the government deficit changes dramatically in response to a change in government policy, as was the case in the United States in 1982, a year when a major federal tax reduction began to take effect even as spending on federal programs was accelerating. While views differ regarding the short-run impact of government

Chart 2

The Current Account and Federal Budget Deficits of the United States



a) Based on 6 percent unemployment GNP trend.

Source: *Survey of Current Business*, various issues and staff of the U.S. Bureau of Economic Analysis.

deficits, the dominant theory is that such a policy-induced surge in government borrowing in a country will put upward pressure on interest rates (adjusted for expected inflation) in that country, thereby attracting foreign investment. As foreign investors acquire the country's currency in order to invest there, they bid up the price of that currency in the foreign-exchange markets. The higher price of the country's currency will discourage foreigners from purchasing its goods but will encourage residents of the country to use their now more valuable currency to purchase foreign goods, so that the country's current account will move toward deficit (or toward a larger deficit). In addition, any increase in the country's total spending resulting from the enlarged government deficit will go partly for imports and for domestic goods that would otherwise be exported, also worsening the current-account balance. Again, to return to one of our central themes, we can see from this brief description that the deterioration of the current-account balance is associated with an increase in the country's total demand relative to the country's output.

Chart 2 supports the view that an increase in the government deficit tends to increase the current-account deficit at least over the medium run.⁷ The

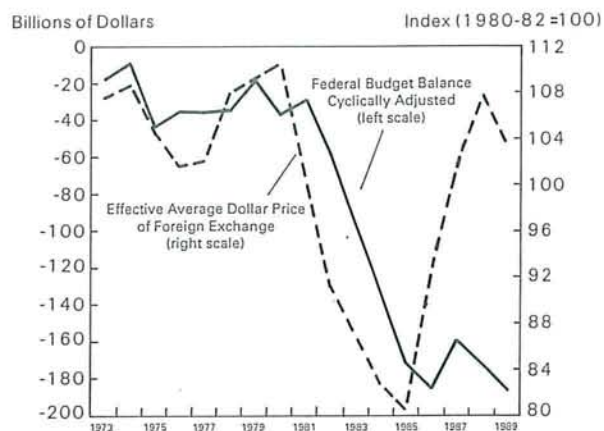
government deficit represented in this chart has been adjusted to exclude the effects of the business cycle; for example, any declines in tax revenues occurring because of recessions have been added back to the recorded level of government receipts, reducing the recorded deficit. Such adjustments are warranted because our interest is in deficits that tend to add to the preexisting level of borrowing and spending, rather than in deficits that merely offset a decline in aggregate borrowing and spending elsewhere in the economy. Since cyclically adjusted data are not available for state and local government deficits, Chart 2 uses data for the federal deficit, which has been the focus of concern. Also, the federal deficit for each year is matched with the current-account deficit for the following year, on the assumption that some time is required for an increase in the federal deficit to influence the current-account deficit.

As noted above, a change in the federal deficit is presumed to affect the current-account deficit partly through its impact on the dollar price of foreign exchange. Chart 3 suggests that the hypothesized relationship between the government deficit and the exchange rate did indeed prevail over the period 1973–85, although the relationship is rather loose. In this case, the government deficit for each year is paired with the exchange rate for the same year, with no lag, on the common assumption that exchange rates react promptly to stimuli, or even anticipate them (but then affect the current account with a lag). Also, the dollar price of foreign exchange, rather than the foreign-exchange price of the dollar, is plotted; therefore, a downward movement signifies appreciation of the dollar.

Although Charts 2 and 3 are suggestive, strong conclusions should not be drawn from them alone. The exchange rate and the current account are influenced not just by the government deficit but by other factors as well.⁸ Other factors likely to have contributed significantly to the dollar's appreciation during the early 1980s—and thus to the current-account deficit—were an anti-inflationary U.S. monetary policy, U.S. tax law changes and deregulation that enhanced the after-tax profitability of investing in the United States, the easing of restrictions over capital outflows from Japan, and more restrictive government fiscal policies in some major foreign industrial countries (McCulloch and Richardson 1986, pp. 56–57; Feldstein 1985, p. 7; Helkie and Hooper 1988, Table 2-17). The net flow of capital into the United States was also fostered by the loss of investment appeal on the part of the less developed countries

Chart 3

The Real Exchange Rate and the Federal Budget Deficit of the United States, 1973–89



Source: *World Financial Markets*, various issues and staff at Morgan Guaranty Trust; *Survey of Current Business*, March 1990 p. 19 and staff at the U.S. Bureau of Economic Analysis.

that could not meet interest payments on their debt.

If net capital flows into the United States became so large during the 1980s, what form did these inflows take? As shown in Table 12, privately owned capital generally accounted for the great bulk of the inflows; foreign net purchases of U.S. securities, foreign direct investment, and inflows through U.S. banks all made substantial contributions. From 1986 through 1988, the private inflows were substantially augmented by inflows of officially owned capital, as 128 billion of dollar holdings in the United States were acquired by foreign monetary authorities, some of whom had sold their own currencies in exchange for dollars in an effort to limit their currencies' appreciation in the foreign-exchange markets.

If in this section we have correctly identified the leading causes of the U.S. external deficits, we are confronted with a puzzle: if the increase in the deficits was due primarily to the appreciation of the dollar and the relatively rapid growth of U.S. total demand (as immediate causes) during the first half of the 1980s, why in subsequent years did the deficits decrease so little (Table 4) as the dollar depreciated so greatly (Chart 1) and as U.S. demand grew more slowly (Table 8)?

Table 12
Capital Transactions in the U.S. Balance of Payments, 1980-89
 Billions of Dollars

Type of transaction	1981	1982	1983	1984	1985	1986	1987	1988	1989 ^p
Private capital, net	-22.6	-23.2	29.1	77.0	110.1	95.7	100.2	98.7	102.9
Securities, net	4.1	5.1	10.1	30.8	63.9	70.5	29.2	38.7	47.6
Foreign net purchases	9.8	13.1	16.9	35.6	71.4	74.8	34.5	46.6	69.5
U.S. Treasuries	2.9	7.0	8.7	23.0	20.4	3.8	-7.6	20.2	30.0
U.S. corporate bonds	2.1	2.8	2.2	13.9	46.6	53.8	26.5	26.8	33.0
U.S. corporate stocks	4.8	3.3	6.0	-1.3	4.3	17.2	15.6	-0.5	6.6
U.S. net purchases of foreign securities	-5.7	-8.0	-6.8	-4.8	-7.5	-4.3	-5.3	-7.8	-21.9
Direct investment, net	15.6	12.8	5.3	13.8	5.9	15.4	15.8	42.2	40.5
Foreign direct in U.S.	25.2	13.8	11.9	25.4	19.0	34.1	46.9	58.4	72.2
U.S. direct investment abroad	-9.6	-1.0 ^a	-6.7	-11.6	-13.2	-18.7	-31.0	-16.2	-31.7
Net flows reported by U.S. banks	-42.0	-45.4	20.4	22.7	39.7	19.8	46.9	13.9	10.5
Other	-0.2	4.2	-6.6	9.7	0.6	-10.0	8.2	3.8	4.3
Official capital, net	-5.3	-7.5	-0.4	-5.5	-7.8	33.9	55.4	38.6	-15.3
Total reported capital flows, net	-27.9	-30.7	28.8	71.6	102.3	129.7	155.5	137.3	87.6
Statistical discrepancy	19.9	36.6	11.4	27.5	20.0	15.8	6.8	-8.4	22.4
Current-account balance	6.9	-5.9	-40.1	-99.0	-122.3	-145.4	-162.3	-128.9	-110.0

Note: Minus sign indicates an outflow.

^pPreliminary.

^aBreak in series.

Source: *Survey of Current Business*, vol. 69, June 1989, p. 79; vol. 70, June 1990, pp. 72, 76, 77 and 97; and U.S. Department of Commerce staff.

Various explanations have been advanced. One of the more plausible is that responses to the dollar's depreciation are taking longer than did the responses to the appreciation. In particular, some foreign exporters, having just invested in gaining a larger share of the U.S. market in response to the appreciation, may have been loath to give up their market gains immediately and instead may have been sacrificing profits in order to retain most of their price competitiveness for the time being in spite of the dollar's depreciation. Another explanation is that factors other than changes in exchange rates and in total demand have an appreciable influence on the external deficit. For example, some studies have concluded that demand for imports grows relatively faster in response to income growth in the United States than it does in the rest of the world, so that the U.S. trade balance will deteriorate unless U.S. income grows much slower than income abroad, other things equal (Houthakker and Magee 1969). Some more recent research maintains that such a difference in the "income elasticity of demand for imports," if it exists at all, is not so important in sustaining the U.S. trade deficit as another factor, namely, the continuing introduction by foreign producers of new product lines that capture the fancy of American consumers (Helkie and Hooper 1988, pp. 20-23).

In any event, the U.S. current-account deficit remains large, and U.S. external indebtedness continues to mount. Having considered the causes of the U.S. deficit, we turn now to the consequences. These can be divided into two categories: past and future. Our chief concern is with consequences for the United States, rather than for the rest of the world.

The Consequences to Date

To some observers, the large U.S. external deficits connote something more alarming than reduced U.S. competitiveness; they connote the "deindustrialization" of America. According to this school, U.S. manufacturing not only has lost ground in export markets, but has been in retreat before a flood of competing imports. Strong action has, therefore, been recommended to preserve the viability of domestic industry.

To be sure, total U.S. output and employment would have been higher if exports had been greater, or competing imports smaller, other things being equal. But once this point is granted, how did the U.S. economy in fact perform under the intensified foreign competition?

The answer is perhaps best conveyed by aggre-

gative data on the production of goods and services. Because goods are generally more transportable than services, firms that produce goods usually are subject to more foreign competition than are firms that produce services. According to the data in Table 13, the production of U.S. goods grew faster than either U.S. GNP or the production of U.S. services after the 1981–82 recession, and the growth of goods production over this period compares favorably with that during previous recent expansions. By this measure, then, U.S. goods producers did well, even with the heightened foreign competition; evidently, the growth of total U.S. demand was rapid enough to accommodate a substantial rise in U.S. production as well as in U.S. imports. (During recessions, of course, goods output actually declines, while services output usually continues to grow.) While it would be a mistake to describe the performance of U.S. industry in superlatives, it is an even greater exaggeration to speak of the deindustrialization of America.

Although the U.S. external deficits have not been destroying American industry, they have exercised a moderating influence. As already noted, U.S. output would have grown even more rapidly in the absence of those deficits; the result might well have been an overheated economy, with appreciably higher inflation and interest rates.

This conclusion is supported by the data in Table 8. The growth rate of U.S. real domestic demand in the years 1983 through 1986 was high by historical standards—and extraordinarily high in 1983 and 1984, the two years of greatest increase in the U.S.

trade and current-account deficits. Indeed, the 8.7 percent growth in U.S. domestic demand in 1984 was the highest since 1951. Had the United States been unable to acquire additional goods and services from abroad to help satisfy this surging demand, the nation could have experienced “bottlenecks”—if not more general shortages—as well as an acceleration of inflation. Even with the huge increase in its net imports, the U.S. economy expanded its output in 1984 by 6.8 percent, which was, again, the fastest rate of growth since 1951.

Partly because of the availability of imported goods, this rapid expansion took place without any rise in overall inflation as measured by the GNP deflator. To be sure, the nation’s high rate of unemployment—7.4 percent in 1984—also militated against rising inflation. But the unemployment rate did fall steadily after 1983, and by end-1986, according to some authorities, was at or near the level at which it would no longer serve to restrain inflation (Wachter 1986, pp. 390–91). This level would have been reached much sooner without the increase in net imports.

It also seems clear that interest rates would have been higher in the United States had the nation been foreclosed from borrowing abroad. As reported in Table 11, gross private saving in the United States declined markedly as a share of GNP from 1981 to 1989 even though government dissaving during the 1980s was at unusually high levels; the nation stepped up its foreign borrowing to help offset these developments. Without the availability of foreign

Table 13
Percentage Changes in U.S. Real Output During Recessions and the Succeeding Expansions, 1969–90

Period (year and quarter)	Percentage Change			
	Goods	Services	Structures	Total GNP
1969:4 to 1970:4 (Recession)	-3.3	1.6	2.4	-.4
1970:4 to 1973:4 (Expansion)	17.6	12.0	12.7	14.5
1973:4 to 1975:1 (Recession)	-7.8	3.0	-18.9	-4.3
1975:1 to 1980:1 (Expansion)	25.2	18.7	28.1	22.4
1980:1 to 1980:3 (Recession)	-3.6	.8	-10.4	-2.3
1980:3 to 1981:3 (Expansion)	5.8	1.3	2.5	3.3
1981:3 to 1982:4 (Recession)	-7.3	1.2	-6.3	-3.2
1982:4 to 1990:1 (Expansion)	41.2	27.3	24.3	32.7

Source: Board of Governors of the Federal Reserve System, *Fame Data Base*.

financing, U.S. interest rates would have risen so as to choke back the level of private domestic investment to the lower level of financing provided from domestic sources alone. Even with the net inflow of foreign capital, U.S. interest rates, both short-term and long-term, reached record heights in the early 1980s (U.S. Bureau of the Census 1975, pp. 1001-1004; 1986, pp. 492-93).

Thus, the near-term consequences of its external deficits seem to have been rather beneficial for the United States. What about the longer term?

Must the Deficit Be Reduced?

Both common sense and experience testify that neither individuals nor nations can incur debt without regard to ability to repay. But it would be a gross exaggeration to suggest that the United States has been threatened with an imminent debt crisis. By no conventional statistical indicator is the nation in such desperate straits.

In this kind of analysis, it is common to distinguish between liquidity and solvency risk. Although countries do not declare bankruptcy, a country is insolvent if it is unable, either for economic or political reasons, to meet its debt obligations over the long term. By contrast, illiquidity means that a country cannot meet its obligations coming due in the near term, but can discharge those obligations, with accrued interest, in the longer run, along with the rest of its obligations.

To assist in evaluating such risk, analysts have developed various indicators of the burden of international indebtedness. Although these indicators are crude, they can help to signal emerging distress. Some widely used indicators focus on the share of a country's output or income that is owed to its creditors. Others focus on the share of export earnings that is absorbed by payments to creditors, recognizing that some significant fraction of those earnings must remain to pay for imports.

In Table 14 are data for some of these indicators that were readily available for a sample of diverse countries. At the end of 1989, gross external debt as a percentage of GNP was lower for the United States than for any of the other countries; no alarm was being sounded by this indicator. Nor was gross external debt as a percentage of exports high by comparison with the typical country listed. Somewhat less reassuring was the percentage of U.S. export receipts consumed by debt-service payments

Table 14
Selected Debt Burden Indicators for the United States and Six Other Countries, 1989

	Gross External Debt as Percent of		Debt Service on Gross External Debt as Percent of Exports of Goods, Services and Private Transfers
	GNP or GDP	Exports of Goods, Services, and Private Transfers	
United States	14.1	123.3	72.0
Canada	39.8	144.7	55.5
West Germany	25.0	68.9	45.0
Denmark	72.0	175.0	117.5
Argentina	117.0	506.4	89.8
Brazil	38.9	304.3	103.2
Mexico	54.4	269.5	90.3

Note: Data are partly estimated.
Source: Morgan Guaranty Trust Co.

to foreign creditors. On balance, one could hardly make the case from such indicators that the United States was facing a debt crisis, especially since the indicators fail to take into account the relatively large foreign assets held by U.S. residents.

One key difference between the United States and the countries that have suffered debt-repayment problems in recent years is that the great bulk of U.S. external debt has been denominated in U.S. rather than foreign currency. Unlike debtors in these other countries, U.S. debtors generally have not had to acquire foreign exchange with which to service their external debts. Were this practice to continue, U.S. debtors would be unlikely to experience more difficulty in meeting their external obligations than in meeting their obligations to domestic creditors. In other words, any debt crisis encountered by the United States would be a general crisis, imperiling resident as well as foreign creditors, rather than an exclusively international crisis. Only a most unlikely development, such as systematic lending by foreigners to unsound U.S. businesses, or limitations by the U.S. government on U.S. payments to foreign creditors, would generate a peculiarly international problem. On the other hand, should U.S. external debt come to be denominated largely in foreign currencies, a depreciation of the dollar against those currencies

would, of course, increase the number of dollars that U.S. debtors were obliged to repay; and a sharp depreciation could provoke a debt crisis that was initially concentrated in the international sector.

The fact that U.S. external debt is owed overwhelmingly in dollars does not mean that the debt imposes no burden, nor does the improbability of an external debt crisis mean that the United States could continue along the path set upon a few years ago. Even if a nation were inclined to borrow without limit, others generally would not lend to it beyond its perceived capacity to service its debt. The moral for the United States is that it would be unable to continue incurring such relatively large current-account deficits in the long run, even if its government deficit remained large.

The long run, however, could be rather long. Some elementary computations are illuminating. In 1987 the U.S. current-account deficit attained a peak of 3.6 percent of U.S. GNP, with GNP at \$4.5 trillion. Suppose that the current-account deficit were to run at 3.5 percent of GNP, and that nominal GNP were to increase by 6 percent each year, a fairly modest rate by recent historical standards. Also suppose that the

average interest rate, or more generally, the average rate of return, earned by foreigners investing in the United States were 8 percent per annum. Finally, since the United States reportedly received nearly as much in interest and other income payments from foreigners as it made to them in 1989 (even though the data showed the nation then to be a sizable net debtor), we shall suppose that the United States did not in fact become a net debtor until this writing.

On these assumptions, the fourth column of Table 15 shows how net interest earned by foreigners would rise as a percentage of U.S. GNP over a fifty-year period. After a half-century, this interest burden would amount to about 4.7 percent of U.S. GNP. More likely, if U.S. net debt did rise markedly in relation to GNP, foreigners would demand higher interest rates to compensate for the reduced creditworthiness of the nation (for the seemingly greater risk of lending to it). Thus, the percentages in the fourth column would climb initially at a faster pace than shown, then at a slower pace as foreigners became reluctant to extend additional loans. Indeed, to contemplate a net foreign debt for the United States amounting to more than half its GNP, as this

Table 15

Net U.S. Interest Burden from External Debt under Differing Assumptions

Billions of Dollars, unless otherwise noted

Year	Nominal GNP (1)	Annual Current Account Deficit Assumed to Be 3.5% of GNP			Annual Current Account Deficit Assumed to Be \$150 Billion		
		Cumulative Current Account Deficit (2)	Net Interest on Cumulative Deficit (3)	Net Interest as Percent of GNP (4)	Cumulative Current Account Deficit (5)	Net Interest on Cumulative Deficit (6)	Net Interest as Percent of GNP (7)
1	\$ 4,500.0	\$ 157.5	\$ 12.6	.28	\$ 150	\$ 12	.27
2	4,770.0	324.5	26.0	.55	300	24	.50
3	5,056.2	501.4	40.1	.79	450	36	.71
4	5,359.6	689.0	55.1	1.03	600	48	.90
5	5,681.1	887.8	71.0	1.25	750	60	1.06
6	6,022.0	1,098.6	87.9	1.46	900	72	1.20
7	6,383.3	1,322.0	105.8	1.66	1,050	84	1.32
8	6,766.3	1,558.8	124.7	1.84	1,200	96	1.42
9	7,172.3	1,809.9	144.8	2.02	1,350	108	1.51
10	7,602.7	2,076.0	166.1	2.18	1,500	120	1.58
20	13,615.2	5,793.7	463.5	3.40	3,000	240	1.76
30	24,382.7	12,451.7	996.1	4.09	4,500	360	1.48
40	43,666.7	24,375.0	1,950.0	4.47	6,000	480	1.10
50	78,198.7	45,727.9	3,658.2	4.68	7,500	600	.77

Note: Nominal GNP is assumed to increase by 6 percent annually. Interest rate is assumed to be 8 percent and is applied to the net debt outstanding at the end of each period, which is taken to be zero prior to year one.

scenario does, might seem beyond the realm of reason. As the data in Table 14 suggest, such ratios did obtain for gross (and presumably net) external debt at the end of 1988 for some countries, but most were less developed, with much smaller economies, than the United States. Moreover, net interest ratios approaching the highest levels shown in column 4 of Table 15 would likely translate into something like two-fifths of U.S. exports of goods and services. In any event, our calculations are merely illustrations, not forecasts.

An interesting alternative is to assume that the U.S. current-account deficit did not rise with GNP but continued at an annual rate of about \$150 billion (a rate somewhat exceeded during mid-1987), and to retain the other assumptions underlying the preceding computations. In this case, the net interest burden as a percentage of GNP would move upward for many years, as shown by the last column in Table 14, but would then decline (beginning with the eighteenth year, not shown in the table). This scenario seems much less threatening.

Variations in the underlying assumptions would, of course, yield different hypothetical outcomes. What seems clear from the calculations presented is that the U.S. current-account deficit could not remain so high *in relation to GNP* as it was in 1987. And in fact the deficit has decreased not only in relation to GNP but in absolute magnitude, amounting to \$110 billion,

It is not obvious that the U.S. current-account deficit must be reduced still further.

or 2.1 percent of GNP, in 1989. It is not so immediately obvious that the deficit must be reduced still further. As illustrated in Table 15, even with a continuing annual deficit as great as \$150 billion, U.S. GNP presumably would eventually increase more rapidly than U.S. net indebtedness (the accumulated deficit), so that the net interest burden would begin to decline in relation to GNP well before reaching the level of 2 percent.

To suggest that the United States might continue to incur a sizable current-account deficit is not to imply that the nation can avoid any adjustment in its

external accounts. As U.S. net interest payments to foreigners increase with U.S. net indebtedness, the nation will have to generate increasing net surpluses (or smaller net deficits) on other current-account transactions—essentially merchandise trade—in order to limit expansion of the overall current-account deficit. How this adjustment takes place is the topic of the next section.

The Nature of the Adjustment

The point has been made that total U.S. demand, or spending, increased faster than U.S. output during most of the 1980s, and that the nation is absorbing foreign saving to finance the gap. To reduce the imbalance, or to prevent it from rising as interest payments to foreigners go up, the United States must raise the growth rate of its output or reduce the growth rate of its spending. As can be seen in Table 8, the nation did succeed in lowering the growth rate of demand relative to that of GNP during the latter part of the 1980s. However, the rate of inflation, as measured by the GNP deflator, rose from 2½ percent in 1986 to 4¼ percent in 1989, implying that the nation's productive capacity was being strained beyond the point at which prices could be held relatively stable.

For the future, reducing the current-account deficit while restraining inflation will require that total demand grow more slowly than in recent years. Efforts to sustain output growth at the rate of the mid-to-late 1980s would court a marked rise in the rate of inflation. Of course, measures that raised output by raising productivity would not invite higher inflation. But raising the productivity of capital would tend to attract more investment from abroad, and as we have seen, investment from abroad works to enlarge rather than diminish the current-account deficit. Therefore, policies designed to raise the growth rate of output probably hold little promise for shrinking the external imbalances of the United States.

The alternative course, restraining total spending, is now underway. Slowing the growth of *consumption* spending, private or government, would, of course, be equivalent to accelerating the pace of saving, unless output growth slowed to the same degree. Alternatively, if the course of saving were left unchanged, the economy could cut back on the growth of its private *investment* spending. Cutting back on investment in plant and equipment, how-

ever, would reduce the nation's future output.

The government might well step up the rate of saving by contracting the budget deficit, either by cutting back its own spending programs or by raising taxes so that households would lower their consumption spending.⁹ If reduction of the budget deficit—and of the economic stimulus the deficit provides—took place at a moderate pace, a recession need not

Cutting the federal budget deficit seems a relatively appealing strategy for cutting the international trade deficit.

ensue, since a goal of the deficit reduction would be to allow U.S. net exports, another stimulus, to expand more rapidly. One way that such deficit reduction could boost U.S. net exports would be by generating a depreciation of the dollar's foreign-exchange value, just as enlargement of the deficit had generated an appreciation.

Thus, if U.S. spending must be constrained, cutting the federal budget deficit seems a relatively appealing strategy for cutting the international trade deficit. But are alternative or supplementary strategies available that do not rely on such direct attacks on spending? This economist is tempted to reply that there is no free lunch.

One alternative government strategy would be to do nothing at all—to take no action designed specifically to shrink the U.S. trade deficit, even in relation to GNP. As U.S. indebtedness mounted in relation to U.S. exports and GNP, investors would become more reluctant to lend to, or acquire net claims on, the United States, thus putting upward pressure on U.S. interest rates and downward pressure on the foreign-exchange value of the dollar. Indeed, this process seemed to be under way late in 1986 and at times during 1987, as some U.S. interest rates rose sharply in relation to rates in some other industrial countries even as the dollar dropped in value (Chart 1) against the currencies of those countries. The higher U.S. interest rates would discourage U.S. builders and other businesses from investing in new structures and equipment, and this reduced spending would help to improve the U.S. trade balance, albeit at the

expense of future U.S. growth. Trade balance improvement would also be fostered by the depreciation of the dollar.

Just how dollar depreciation improves the U.S. trade balance is a matter of some debate. One conceivable route is via a reduction in the purchasing power of U.S. money balances. A rise in the dollar price of foreign currency (dollar depreciation) tends to raise the dollar prices of foreign goods imported into the United States, as well as the prices of substitute goods produced within the country. Thus, the purchasing power of U.S. residents could be somewhat diminished, discouraging spending and improving the balance of trade.

Dollar depreciation typically has another related price effect that also is helpful. The depreciation-induced rise in the dollar price of imports, and of exports, encourages U.S. businesses to shift resources into the production of export goods and of goods that can substitute for imports, and away from the production of goods that do not move in international trade. The same price movements encourage U.S. consumers to switch their purchases away from the goods that move in international trade and toward nontraded goods. Again, the tendency is to improve the trade balance. And if the prices of nontraded goods decline, or rise more slowly than before the depreciation, the nation need not experience a marked rise in its overall rate of inflation.

Still another government strategy to reduce the trade deficit would be protectionism. Now, the U.S. trade deficit has been very large, and any U.S. import tariffs or quotas severe enough to have a sizable initial impact on the deficit would certainly provoke foreign retaliation against U.S. exports. Even in the absence of retaliation, tariffs or quotas would not be very effective in decreasing the trade deficit unless they somehow reduced total U.S. spending. A tariff could reduce spending if the tariff revenue were used by the government to cut back on its budget deficit, but other taxes would offer the same opportunity without the cost of an international trade war. Protectionism, therefore, is not a promising approach to the problem.

Of the various strategies considered, then, the most desirable would be a combination of federal deficit reduction and tolerance of dollar depreciation. The adjustment process under way thus far has not been ideal. At this writing, significant federal deficit reduction is problematical and interest rates remain at levels relatively high by historical standards, tending to depress private investment. In this connection,

Table 11 indicates that the unusually high level of U.S. borrowing from abroad after 1982 was not accompanied by an unusually high level of private domestic investment. The implication is that the increased borrowing from abroad went mainly or entirely to finance increased consumption. Unlike sound investment, consumption generates no return with which to repay a loan. Thus to service its foreign debt, the United States will have to consume less than it otherwise would.

Summary

After 1982 the U.S. international investment position dramatically shifted from one of sizable net creditor to much more sizable net debtor, with further huge, debt-augmenting deficits in the offing. This transformation occurred even though the United States may have lost little or no competitiveness for "supply-side" reasons. In particular, during the years of rapid deterioration in the U.S. trade balance, U.S. labor productivity gains were virtually as great as those in other industrial nations; the performance of U.S.-based multinational firms suggests that U.S. management was maintaining its international competitiveness; and the United States did in fact maintain its share of world output.

Nor can unfair foreign trading practices explain much of the U.S. external deficits. The deterioration in the U.S. trade balance was distributed widely across commodity categories, as well as across geographic areas. It seems most unlikely that virtually all major trading partners of the United States would simultaneously have intensified unfair practices in trade with the United States in virtually all major commodity categories.

A more plausible explanation of the U.S. external deficit focuses on (1) the more rapid expansion of real income and demand in the United States than in the rest of the world after 1982, and (2) the appreciation of the dollar in the foreign-exchange markets after mid-1980, a development that reduced the price competitiveness of U.S. goods. Both of these factors

stimulated greater growth in U.S. purchases of foreign goods than in foreign purchases of U.S. goods; both factors were themselves a result largely of the worldwide blend of monetary and fiscal policies, including the huge increase in the U.S. federal budget deficit. This increase in net federal spending boosted aggregate U.S. demand. Moreover, the increase in U.S. government borrowing associated with the budget deficit, coupled with an anti-inflationary U.S. monetary policy, tended to push up U.S. interest rates (adjusted for inflation), thus attracting investment by foreigners, whose purchases of dollar-denominated securities served to bid up the value of the dollar in the foreign-exchange markets.

Contrary to a widespread impression, the U.S. trade deficits were not accompanied by a "deindustrialization of America." Following the 1981-82 recession, the production of goods grew faster than the production of services within the United States, and the growth of goods production compared favorably with that during earlier economic expansions. Thus, U.S. goods producers fared relatively well despite the increased U.S. trade deficit. Rather than destroying large segments of American industry, imports from abroad helped to satisfy the swiftly growing U.S. demand, without the development of shortages and rising inflation.

Although the net foreign debt of the United States soared with the trade deficit, no crisis looms for the nation on indebtedness. Over the longer run, of course, foreigners would not be prepared to lend more and more to a nation whose indebtedness continued to rise in relation to its gross output and exports. Thus, the U.S. current-account deficit had to shrink in relation to the nation's output and exports; and the trade deficit in particular must diminish if the nation is to fund increasing net interest payments to its foreign creditors. The depreciation of the dollar that took place after February 1985 will contribute to this adjustment, as would further dollar depreciation and measures to reduce the federal budget deficit. The adjustment will not be painless for the United States, which will be obliged to consume less than it otherwise would.

¹ Perhaps the most articulate exponent of the hard landing scenario was Stephen Marris (1985 and 1987).

² While some part of the large unidentified receipts in the U.S. balance of payments has surely taken the form of foreign investment in the United States, it would almost certainly be a mistake to attribute all of these net receipts to such capital-account transactions. Much evidence exists that a significant portion of the receipts has been generated not by capital-account but by current-account transactions, such as the sale of U.S. goods and services abroad, or the charging of interest on U.S. loans to foreigners. Insofar as the unidentified receipts have resulted from current-account transactions, the reported value of U.S. net indebtedness requires no upward revision.

³ It should also be noted that the measure of the U.S. position in Tables 1, 2, and 3 includes equity as well as debt claims, while the customary measures of the debt of less developed countries do not include equity held by foreigners. For a discussion of these matters, see Herman (1987, pp. 1-4).

⁴ See Herman (1987, pp. 1-2); also see the IMF *World Economic Outlook* (latest issue) for more recent data than Herman supplies on developing-country debt.

⁵ See, for example, U.S. Department of Commerce (1983, pp. 49-51), and *Consumer Reports*, various issues evaluating automo-

biles.

⁶ For an outline of U.S. law and procedures relating to the imposition of antidumping duties and countervailing duties, see U.S. International Trade Commission (1989, pp. 140-42).

⁷ After surveying the estimates yielded by a large number of multicountry models, Helliwell (1990, p. 17) concludes that "the U.S. fiscal policy of the first half of the 1980s was responsible for about half of the buildup in the external deficit. . . ."

⁸ Among these factors are resource discoveries, changes in tastes and technology, and differences in national growth rates. Changes in tastes and in technology, however, as well as growth trend differentials, generally exert their influence gradually over long periods, and major resource discoveries are rare. From year to year, movements in the real exchange rate and current account are more powerfully influenced by business cycle fluctuations, by government controls, and by government monetary and fiscal policy, including changes in the government deficit such as those depicted in Charts 2 and 3.

⁹ Considerable controversy exists within the economics profession over the impact of government revenues and spending on aggregate demand. For example, see Feldstein and Elmendorf (1990), Modigliani and Sterling (1990), and Kormendi and Meguire (1990).

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