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Research Report

A critical imbalance in US trade: The US balance of payments, international indebtedness, and economic policy

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Public Policy Brief

**A Critical Imbalance
in U.S. Trade**

The U.S. Balance of Payments, International
Indebtedness, and Economic Policy

Wynne Godley

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Preface

Despite the facts that the United States has expanded its economic borders and it is a leading world competitor, its world trade position is not favorable. The U.S. balance of payments has deteriorated over the past 20 years; by the second quarter of 1995 the trade deficit (which includes trade in merchandise, investment income, government payments, and services) had expanded to a record-high \$43.62 billion. This translated into a more than one-half percentage point rise (at an annual rate) in the trade deficit as a share of GDP since the previous quarter.

In this *Public Policy Brief*, Wynne Godley, Distinguished Scholar at the Levy Institute, analyzes the trends in U.S. international transactions over the past 25 years. Godley notes that the primary cause of the deterioration of the U.S. trade balance has been this country's increasing reliance on imported goods, especially manufactured goods. Moreover, he cautions against understating the importance of the balance: "continuing deficits, even if they are quite small, cause a progressive loss of U.S. wealth overseas." In turn, the mounting debt resulting from the continuing deficits "generates a growing burden of interest payments that becomes increasingly expensive and embarrassing to finance."

How does this affect the domestic economy? The larger the annual net outflow of goods and income from the United States, the larger the annual leakage from the circular flow of national income. Continuing deficits and their associated interest payments cause the total international debt to mount at an increasing rate; a large enough debt leakage would drive the economy into recession. Godley tentatively suggests that a debt in the range of 20 to 40 percent of GDP would be "hazardous

in the extreme” and that perhaps this range is too generous. To avert such a recession and to maintain a normal rate of GDP growth would, therefore, require increasingly larger injections from the government in the form of higher budget deficits.

Recent trade data only underscore Godley’s case. Much of the rise in the second-quarter trade deficit was the result of a large increase in imports, the very factor to which Godley attributes the 20-year deterioration in the account. Moreover, the data reinforce Godley’s assertions that the pattern of indebtedness is not self-correcting; the rise in the deficit occurred despite the fact that the dollar had declined precipitously, falling to approximately 85 yen for most of the second quarter of 1995. By the end of the third quarter, however, the dollar had experienced a steep rise; continued strength of the dollar—which appears to be a goal of both the current administration and the Federal Reserve—will make foreign goods even more attractive to U.S. consumers, leaving little reason to expect the import trend to abate or the trade deficit to improve.

If the predictions Godley makes in this *Brief* are correct, which I strongly believe to be the case, public policy action is needed to ward off a potentially explosive situation. Godley notes several possible paths that U.S. policy could take to solve the trade balance. Whatever policy is selected, it should be implemented soon because delay will only compound a looming domestic economic problem.

Dimitri B. Papadimitriou
Executive Director

October 1995

The U.S. Balance of Payments, International Indebtedness, and Economic Policy

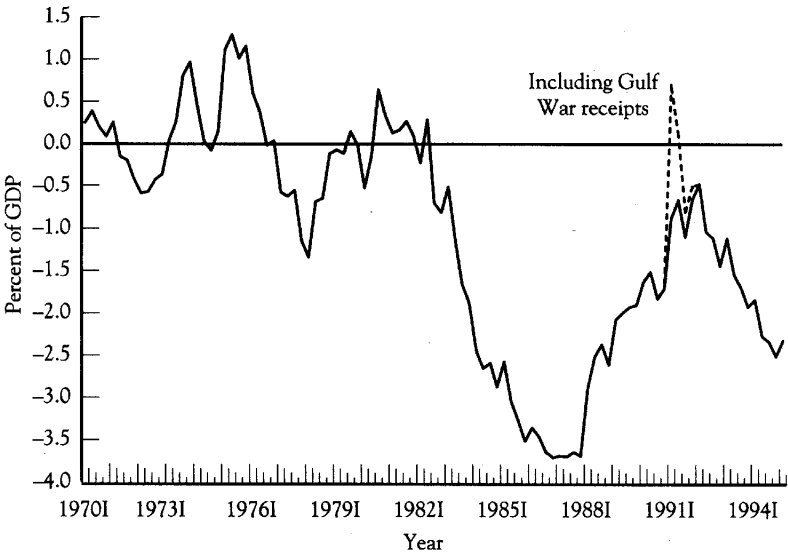
The U.S. balance of payments has been deteriorating since the mid-1970s and has been in deficit since the early 1980s, largely as a result of the rising penetration of U.S. markets by foreign manufactures.¹ The scale of the deterioration has been partly masked by cyclical and other factors.

The trade deficit has turned the United States from the world's largest (international) creditor into the world's largest debtor. If the deficit gets any larger or if it does not improve, the United States's foreign debt and payments of interest on it will start to explode and demand correction at some stage.

There are several policy paths that could be taken to improve the balance of payments, each with different economic repercussions. One way to improve the balance of payments would be to deflate the economy with restrictive fiscal and monetary policy, thereby reducing imports. However, the costs of such a policy in terms of lost output and high unemployment would be severe. A second, and better, way to correct the imbalance would be to switch domestic expenditure away from imports to domestic output, since that path to improvement need not cause output to fall or unemployment to rise.

One means by which expenditure might be switched is currency devaluation. A large enough fall in the dollar rate of exchange could bring about an expenditure switch, but would carry a risk of inflation. However, under the present regime of floating exchange rates and unregulated international capital flows, devaluation no longer exists for the United States as a viable instrument of policy. There has been little change in the real, trade-weighted rate of exchange during the last nine years, and there is no

Figure 1 U.S. Current Balance of Payments as a Percent of GDP, Quarterly, 1970–1995



Source: Citibase.

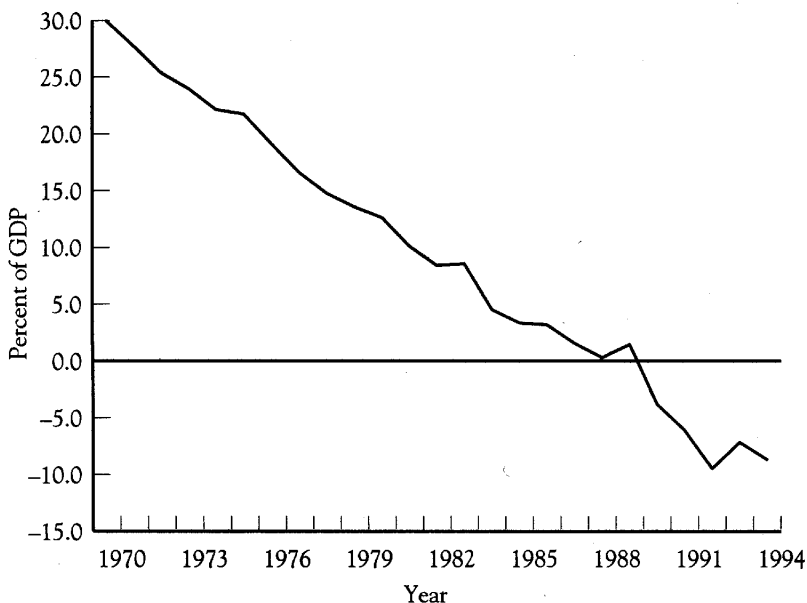
reason to suppose that market forces will cause the dollar to move to the level that would achieve the required change in a timely fashion.²

In view of the potential seriousness of the problem, it is not too early to explore the possibility of using temporary, nonselective import restrictions at some stage, in accordance with the relevant provisions of the General Agreement on Tariffs and Trade (GATT) as adopted and modified by the new World Trade Organization (WTO) as another means to achieve the required switch. Any such policy is to be sharply distinguished from illegal, protectionist measures used selectively to protect sectoral interests at home or against particular countries abroad.

The External Deficit and the Loss of U.S. Overseas Wealth Since 1970

As Figure 1 shows, in the mid-1970s the United States's current balance of payments was in surplus by an amount equal to about 1 percent of

Figure 2 Net Foreign Assets as a Percent of GDP, 1970–1993



Note: Net assets are measured at market prices.

Source: U.S. Department of Commerce, *Survey of Current Business*, June, various years.

gross domestic product (GDP). In 1994 there was a deficit equal to about 2.25 percent of GDP, which rose to at least 3.0 percent by mid-1995. It is reasonable to ask why, if the persistent external deficit has done no obvious harm so far, it now should be a source of concern. The answer is that continuing deficits, even if they are quite small, cause a progressive loss of U.S. wealth overseas. As Figure 2 shows, U.S.-owned foreign assets (net of liabilities) were worth 30 percent of GDP in 1970. As a consequence of the external deficits, all of this wealth had melted away by 1988, and by the end of 1994 the United States had acquired a net debt equal to 8.5 percent of GDP.³

Why does a growing external debt matter to the United States? For the same reason that a growing debt matters to any agent: it generates a growing burden of interest payments that becomes increasingly expensive and embarrassing to finance. As Minsky (for example, 1986) has argued, once an agent has to borrow in order to pay interest payments, the whole process begins to feed on itself and to explode.

Analysis of Debt Creation

To analyze the problem more closely, it is essential to divide the current account deficit into two parts. On the one hand there is the primary deficit, that is, the deficit in the balance of trade in goods and services plus transfers such as personal remittances and foreign aid (transactions that in principle can be changed by decisions made within the period). On the other hand there are net profits and interest payments due abroad, "factor incomes" in the jargon of the National Income and Product Accounts (NIPA), that are generated by assets and liabilities that have been built up in previous periods.⁴ Starting from scratch, a primary deficit generates overseas liabilities, which in turn generate outflows of factor income, thereby increasing the current account deficit and increasing the debt further, and so on. The main causes for concern are the financing constraints that occur when countries become heavily indebted and the loss of national income that results from rising interest payments.

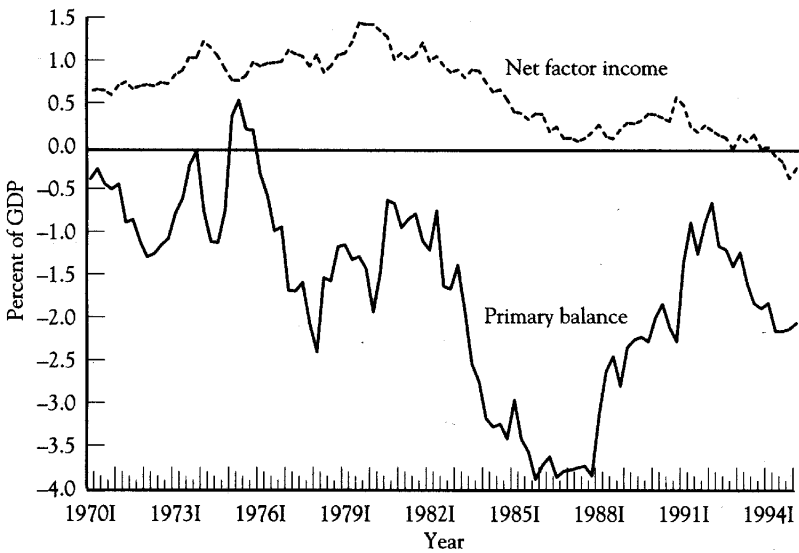
To illustrate the problem simply, suppose that the United States had net liabilities equal to 100 percent of GDP and that the nominal rate of interest on these liabilities was 6 percent. The net outflow of factor income (in the form of interest payments) would obviously be equal to 6 percent of GDP. If the primary deficit were 3 percent of GDP (as it is at present), the deficit in the current account as a whole would be 9 percent of GDP (that is, 3 percent plus 6 percent), or well over \$600 billion at today's values. This is the amount the United States would have to borrow every year in world capital markets, and it is pretty obvious that it could not borrow such a large sum annually without putting the dollar under impossible strain and without having to increase interest rates, thereby making matters worse because the outflow of interest payments would be even higher. The problem could be yet further aggravated if persistent dollar weakness led foreigners to cease using the dollar as a reserve currency or to cash in the large quantities of U.S. currency known to be circulating abroad.⁵ Moreover, the position just described would not be stable, since a debt rising by 9 percent per annum would also be rising relative to GDP; we then would be looking forward to a worsening situation in the following years.⁶

Another consequence of having a debt equal to 100 percent of GDP is that the net outflow of factor income would be a significant charge on the incomes of U.S. citizens. Total income received by U.S. residents (the gross national product, or GNP) would be 6 percent below the value of what they produce (the GDP).⁷ Moreover, the outflow would be a kind of hemorrhage from the circular flow of national income and tend to drive the economy into recession. In order to maintain growth of GDP at its normal rate of about 2.5 percent, increasing transfusions from the government in the form of increasing budget deficits would be required.

It cannot be said in advance just what the limit to indebtedness would in reality be, but it would surely come a long way before the figure of 100 percent of GDP was reached. It is tentatively suggested that anything in the range of 20 to 40 percent would be hazardous in the extreme, and perhaps this figure is too high. It is possible that the recent chaos in currency markets was partly caused by the United States's being a mere 8.5 percent of GDP in debt while having a significant and deteriorating current account deficit.

There exist theorems, well known to students of debt processes, that precisely describe the dynamics of debt accumulation.⁸ One of the most important of these states that if the real rate of interest exceeds the economy's growth rate, an indebted country with a primary deficit, however small, will increase its debt-to-GDP ratio forever—a process that obviously could not in reality go on for long and that would, by the laws of logic rather than economics, imperatively require correction before things got out of hand. The theorem implies that if the interest rate exceeds the growth rate, an indebted country must have a primary surplus if the debt is not to explode. The intuition behind this implication is that unless there is a primary surplus to generate the foreign exchange necessary to service the debt, interest payments can be met only by further borrowing—the classic road to ruin. It should be noted, in the context of this paragraph, that the real rate of interest in the United States on one-year bonds was nearly 4.5 percent in the first half of 1995, well above the normal growth rate, and that the real rate of interest on longer term bonds was much higher than this.⁹

Figure 3 Primary Balance and Net Factor Income as a Percent of GDP, Quarterly, 1970–1995



Note: The primary balance excludes Gulf War receipts.
Source: Citibase.

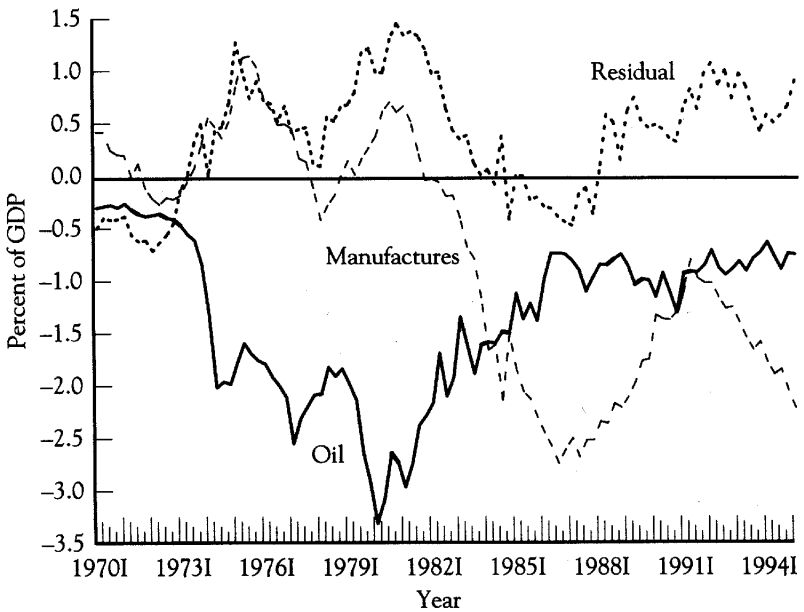
Application to the United States

How do these considerations apply to the United States? Figure 3 sets the scene by dividing the U.S. current account into its two parts. The primary balance has been in deficit since 1975. It has fluctuated widely, but there has clearly been a deteriorating trend during the period as a whole. The flow of factor income payments was positive and fairly stable at around 1 percent of GDP until the early 1980s; it fell to zero in 1993 and has been increasingly negative since then. The two components of the current account will be considered separately in the following sections.

Primary Balance

To understand past changes in the primary balance it is useful to divide it into the three parts illustrated in Figure 4: the balance of trade in manufactures, the balance in imports of oil, and the residual balance (largely exports and imports of services).

Figure 4 Three Components of the Primary Balance, Quarterly, 1970–1995



Source: U.S. Department of Commerce, *Survey of Current Business*, June, various years.

As Figure 4 shows, there was a big reduction in the value of oil imports in the first half of the 1980s, mainly because oil prices fell sharply relative to the GDP deflator. It is important to separate out the effect of this oil price fall (shown as a reduction in the deficit), which is unlikely to be repeated, because it otherwise conceals the underlying adverse trend in the primary balance.

Fluctuations in the primary balance around its adverse long-run trend have been the result of two different sets of forces. First, the balance has responded inversely, with a time lag, to changes in the dollar's real exchange rate. The real, trade-weighted dollar exchange rate rose about 40 percent between 1981 and 1985 and then fell all the way back to its starting point in 1981 between 1985 and 1988. Since 1988 the real exchange rate has been almost flat. There was a period of moderate weakness in the first half of 1995, but this appears to have been reversed. The huge upward and downward movement in the exchange rate in the 1980s was partly responsible for the deterioration in the primary balance in the first half of that decade and for the partial subsequent recovery.

Second, the balance deteriorated particularly fast during periods when production in the United States rose in comparison with the rest of the world (as in the 1975 to 1978, 1980 to 1985, and 1991 to 1994 periods). The rise in relative production caused U.S. imports to rise relative to exports. Conversely, the balance improved when U.S. growth was relatively sluggish (as in the 1972 to 1975, 1978 to 1982, and 1988 to 1991 periods).

For what it is worth, my empirical analysis suggests that roughly half the cyclical deterioration and subsequent recovery (relative to the trend) of the primary balance of payments during the 1980s was the result of the fluctuation in exchange rates, and half was the result of differences in the timing of U.S. and foreign business cycles.¹⁰

If one abstracts from the business cycle and fluctuations in the price of oil, it becomes clear that the underlying adverse trend has been caused by a huge rise in imports of manufactured goods. In 1970 the value of imports of manufactures was 2.1 percent of GDP; at the beginning of 1995 this had risen to 8 percent. Expressed as a proportion of U.S. manufacturing output, imports of manufactures rose over the shorter 1977 to 1993 period from 14 percent to no less than 36 percent.¹¹ The increase in the *volume* of merchandise imports (a slightly wider category than manufactures), which is an indicator of the physical displacement of U.S.-produced goods by imports, has been spectacular: Imports of goods (excluding oil) have risen in volume four-and-a-half-fold during the last 25 years compared with a rise of about 90 percent in GDP over the same period. In the first half of 1995 the deficit in trade in manufactures (2.2 percent of GDP) was nearly large enough to account for the whole of the primary deficit.

It is sometimes said that manufacturing has lost its importance and that countries in balance of payments difficulties should look to trade in services to put things right. However, while it is true that manufacturing output has declined substantially as a share of GDP, the figures quoted above show that the share of manufacturing imports has risen substantially. The importance of manufacturing does not reside in the quantity of domestic output and employment it generates, still less in any intrinsic superiority that production of goods has over provision of services; it resides, rather, in the potential that manufactures have for expansion in

international trade. While the balance of trade in manufactures has deteriorated by an amount equal to about 3.5 percent of GDP over the last 20 years, the balance of trade in services (the greater part of the residual balance) has improved by less than 1 percent of GDP.

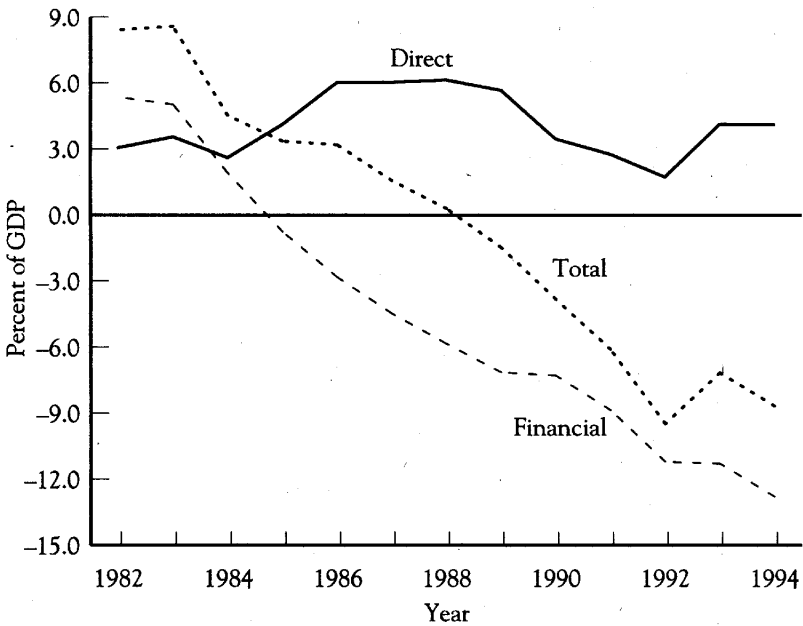
Factor Income Flows

As shown in Figure 3, the inflow of factor income was worth about 1 percent of GDP before 1986 (when the United States was an international creditor), and it remained positive, though falling, for six years after the United States became a net debtor. The inflow of factor income fell to zero in 1993 and has been slightly negative since then. In terms of the model of debt dynamics described in the preceding section, the "rate of interest" on the whole (net) debt has been *negative* for most of the period since 1988. So at first sight, our model of debt dynamics seems to be saying that there may be nothing to worry about and, indeed, debts would not matter if they never gave rise to interest payments. Perhaps it is because net factor income remained positive until recently that so little importance has been attached to the matter of the current account deficit.

How was it that net factor income continued to flow inward during the years following 1988? The seeming paradox is easily resolved if flows of factor income are disaggregated and related to the asset and liability stocks that generated them. It turns out that one block of foreign-owned assets—direct investment by foreigners in businesses in the United States—has earned hardly any return at all; it is precisely these assets that for a long time caused the return on all assets to exceed that on liabilities.

It would be convenient if the primary deficit could always be financed by foreigners making wretched investments in U.S. assets that earn next to nothing. But this seems to be out of the question. On top of that, the low return on direct investment in the United States is unlikely to continue indefinitely. According to the analysis by Laster and McCauley (1994), this low return has been mainly a consequence of a higher proportion of foreign investments in the United States having only

Figure 5 Net Overseas Assets: Direct Investments and Financial Liabilities, 1982-1994



Source: U.S. Department of Commerce, *Survey of Current Business*, June, various years.

recently been made; it seems that a probationary period is necessary before reasonable levels of profitability can be established. As foreign entrepreneurs get their sea legs, profitability will probably rise to more normal levels and generate an increased outflow of significant size. Indeed, figures for 1994 and the first quarter of 1995 show a significant increase in outflows from this source.

Figure 5 breaks down the debt into its two main components: direct investments, which have not changed much in recent years and in which the United States is still a net creditor, and the rapidly growing net financial liabilities. If the debt continues to grow, and if all the increase does not take the form of direct investment by foreigners in the United States, the average nominal "rate of interest" payable on the debt as a whole will converge toward the rate payable on financial liabilities. That is, if history is any guide, the rate will converge toward the one-year bond rate. And it will do this entirely because of the change in the structure of the debt, even if individual rates of interest do not change at all.

Scenarios for the Next Decade and a Half

Table 1 gives some idea of the magnitude of the strategic problem and of the speed at which it might become manifest. The table assumes, perhaps conservatively, that the primary deficit remains, during the next 15 years, at roughly the level reached in mid-1995. The other major assumption is that the real rate of interest is 4.0 percent, slightly below the level now prevailing.¹²

Table 1 Estimates of Selected Trade Variables Under the Assumption of a Constant Primary Deficit (as a Percent of GDP)

	1994	1995	1996	1997	2000	2005	2010
Primary deficit	2.0	2.4	2.5	2.6	2.6	2.6	2.6
Net outflow of factor income	0.2	0.2	0.4	0.5	0.9	1.7	2.5
Current account deficit	2.1	2.6	2.9	3.1	3.5	4.3	5.1
Net foreign liabilities	8.7	10.9	13.3	15.7	23.1	36.3	50.4

Note: The real rate of interest is assumed to be 4.0 percent, GDP growth 2.5 percent, and the increase in net liabilities each year equal to the current account deficit (that is, there are no capital gains). Refer to the text and appendix for additional details about assumptions and the model used to generate the estimates.

Source: Author's calculations.

Table 2 shows what might happen if the primary deficit were to go on deteriorating slowly (by 0.1 percent per annum) and if real interest rates on one-year bonds were 4.5 percent rather than the 4.0 percent assumed in Table 1.

Neither of these scenarios is acceptable, the second obviously even less so than the first. In each case the debt ratio rises to nearly 25 percent in the year 2000 and begins to accelerate after that. Even on the relatively optimistic assumption in Table 1, the debt rises during the first decade of the next century to levels well above those that are commonly held to consign countries to the "heavily indebted" category.

Accordingly, the first major conclusion of this *Brief* is that, one way or another, the primary balance will have to be eliminated over the next few years. The longer the correction process is put off, the more that

indebtedness will grow and, therefore, the larger will be the required improvement in the end. If the debt rises beyond a certain point, the primary deficit will eventually (as argued above) have to be turned into a surplus if the debt-to-GDP ratio is to be stabilized.

Table 2 Estimates of Selected Trade Variables Under the Assumption of a Deteriorating Primary Deficit (as a Percent of GDP)

	2000	2005	2010
Primary deficit	2.9	3.4	3.9
Net outflow of factor income	1.1	2.2	3.5
Current account deficit	4.0	5.6	7.4
Net foreign liabilities	24.7	42.5	64.6

Note: The real rate of interest is assumed to be 4.5 percent, GDP growth 2.5 percent, and the increase in net liabilities each year equal to the current account deficit (that is, there are no capital gains). The primary deficit is assumed to deteriorate by 0.1 percent per year. Refer to text and appendix for additional details about assumptions and the model used to generate the estimates.

Source: Author's calculations.

Why the Problem Is Not Self-correcting or of No Consequence

Some people believe that the present system of trade and payments is inherently self-correcting and therefore that there is no need to worry. This view seems to be decisively confuted by the fact that so many countries have become heavily indebted, with the result that emergency action was eventually forced on them, usually in the form of deflationary retrenchment involving a high cost in terms of unemployment and lost output. Moreover, the countries in question did not all have underdeveloped economies with poor systems of government; Australia and Denmark are both instances of modern industrial countries that became heavily indebted, apparently because their problems were ignored for too long (Godley and Zezza 1991).

Refuting the "Saving Is Too Low" Argument

It is sometimes held that, in the words of the *Economist* (May 27, 1995, p. 18), "America's current account deficit is enormous because

its citizens save so little and its government spends too much." The basis for this proposition is the accounting identity that says that the private sector's surplus of saving over investment is always equal to the government's deficit plus (or minus) the current account surplus (or deficit).¹³ As this relationship invariably holds by the laws of logic, it can be said with certainty that if private saving were to increase given the budget deficit or if the budget deficit were to be reduced given private saving, the current account balance would be found to have improved by an exactly equal amount. But an accounting identity, though useful as a basis for consistent thinking about the problem, can tell us nothing about why anything happens. In my view, while it is true by the laws of logic that the current balance of payments always equals the public deficit less the private financial surplus, the only *causal* relationship linking the balances (given trade propensities) operates through changes in the level of output at home and abroad. Thus a spontaneous increase in household saving or a spontaneous reduction in the budget deficit (say, as a result of cuts in public expenditure) would bring about an improvement in the external deficit only because either would induce a fall in total demand and output, with lower imports as a consequence.

Professor Martin Feldstein has taken a substantially different view, which has been influential in the public discussion. Feldstein sees a strong causal relationship running, in the long term, from a country's saving to its domestic investment: "I have found that changes in domestic saving are generally balanced in the short-run by changes in international flows but that changes in domestic saving that persist lead to parallel changes in domestic investment" (Feldstein 1992, 61).

The implication of this statement is that deficits in the current balance of payments are essentially temporary phenomena arising from short-term deficiencies of national saving, broadly defined to include the government's budget deficit (as a negative item), compared with investment. So, in the first half of the 1980s, for instance, "[T]he budget deficit induced a capital inflow from the rest of the world and an increased capital inflow must be matched by an equal increase in the net inflow of goods and services as measured by the current account deficit. The rise in the dollar is simply the mechanism that brings about this change . . ." (Feldstein 1992, 61).

Although this is not the place to engage in an elaborate academic discussion, it is fair to point out that Feldstein, at least in Feldstein and Horioka (1980) and Feldstein (1992), simply ignores the secular rise in the United States's international indebtedness and the persistent increase in the penetration of U.S. markets by imports—both of which are continuing processes that it is the purpose of this *Brief* to highlight. It is also the case that the predictions made by Feldstein, using his model, have proved to be quite incorrect. Having drawn attention to the low level of saving in the United States, Feldstein judged that “The United States appears to be moving from the ‘short run’ in which the capital inflow offsets a decline in national saving to the ‘long run’ in which each dollar of persistent change in domestic saving causes a nearly equal change in domestic investment.” Accordingly, “Looking ahead, the current account is likely to remain at its present level or to continue to shrink relative to GNP. Unless there is a rise in domestic saving, the level of domestic investment will remain very low” (Feldstein 1992, 63).

But as we now know, it was precisely from the first quarter of 1992 (when the Feldstein article appeared) that there was a large and sustained deterioration in the current account deficit. Moreover, far from languishing in response to chronically low saving in the previous period, investment has risen spectacularly over the last three years. National saving has risen a little (entirely thanks to a fall in the budget deficit), but the huge rise in investment has come too soon and been too large to be consistent with the Feldstein hypothesis.

Refuting the “All Investment Is Good” Argument

It is sometimes said that the external deficit is harmless because it is nothing other than investment in the United States by foreigners and that this can only do good. Indeed, Table 4.1 of the NIPA labels the balance of foreign transactions as “net foreign investment.” (This argument was used extensively in the United Kingdom during the ill-fated “Lawson boom” of the late 1980s when a rapid expansion of demand, as a result of tax cuts and credit deregulation, led to a large external deficit.)

This argument has no substance. A decision by foreigners to invest in the United States is beneficial to the extent that it creates productive assets here that would not otherwise have been created and that have the effect of raising productivity, thereby generating additional exports at least large enough to cover any addition to profits flowing abroad. But the U.S. deficit in goods and services, which accounts for the bulk of the overall current account deficit, cannot possibly be said to have been caused by decisions of foreigners to invest in the United States; rather, the deficit was caused by decisions of U.S. residents (individuals and corporations) to purchase imported rather than domestically produced goods and by the relative weakness of U.S. exporting industries. Of course, an external deficit generated in this manner has to be financed, which means that, by hook or by crook, foreigners have to be induced—perhaps by higher interest rates or by depreciation of the dollar to the point where the expectation of subsequent appreciation brings the money in—to lend on a sufficient scale. But it is misleading—at best vacuous—to call such inflows “foreign investment.” Indeed, as shown in Figure 5, the net value of direct foreign investment in the United States has been more or less stable in recent years, so the whole recent deterioration in the net asset position has taken the form of increased ownership by foreigners of financial assets. Such assets (that is, equities and bonds) do nothing at all for U.S. productivity, but do generate negative income streams in perpetuity.¹⁴

Policies to Improve the External Deficit Position of the United States

Assuming that a debt crisis does develop in the way postulated, what conclusions can be drawn about policy? It is the central contention of this *Brief* that there are two fundamentally opposed approaches to solving the external deficit problem: the deflationary solution, which would work by reducing economic activity, and an expenditure-switching solution, which would reduce net imports without reducing overall economic activity. Either type of improvement would be accompanied, following the logic of the accounting identity outlined above, by some combination of a fall in the budget deficit and a rise in the private

financial balance. It is the failure of the statement in the *Economist* article, quoted above, to distinguish between the two routes.

The deflationary solution would be to impose a contractionary fiscal and monetary policy regime severe enough to generate a recession-induced fall in imports. The deflationary route is the one that has generally been adopted by indebted countries in the past. For instance, Denmark, Australia, and Ireland were all in recent years forced to severely deflate their economies when their foreign debt situation manifestly got out of hand. These countries' primary balances did eventually go into surplus, but only at the cost of several years of output stagnation and unemployment ratcheted up to previously unheard of levels.

The cost to the United States of eliminating its primary deficit by deflation might be surprisingly large. Since imports are only about 10 percent of GDP, it would, other things being equal, require a 20 percent reduction in imports to eliminate a current account deficit equal to 2 percent of GDP. On the face of it, then, a deflationary policy would require a fall in GDP of approximately 10 percent.¹⁵ By Okun's law¹⁶ the reduction in output, even if it were "only" 10 percent, would add perhaps 5 percentage points to unemployment.

The alternative to deflation is to somehow increase exports or switch domestic expenditure away from imports and toward domestic output. An expenditure-switching solution, other things being equal, is greatly preferable to the deflationary solution because it does not require a reduction in total output or employment.

How might expenditures be switched away from imports? The traditional answer is that this would be best achieved by currency depreciation, which works by making imports more expensive and exports (measured in foreign currency) cheaper. The trouble is that, under the present system of floating exchange rates and uncontrolled international capital flows, devaluation has ceased to exist as a viable policy instrument and the required fall in the exchange rate will not necessarily come about spontaneously. Currency markets continually bring the supply of dollars (generated by, among other things, balance of payments flows) into equivalence with the demand for dollars (largely determined by expected

relative rates of return and expectations about expectations). There is no reason to suppose that these market processes will lead to the establishment of a rate of exchange that will improve trade propensities on just the scale required to achieve a sustainable net asset position.¹⁷ It should be added that devaluation on a significant scale would carry a serious danger of inflation.

Accordingly, it is not too early to give active consideration to the possibility of using import controls to achieve the required switch in favor of domestic output. This may be the only available means to correct the deficit that does not involve a reduction of output.

Contrary to much popular supposition, the articles of the GATT, which have been adopted with some modification by the new WTO, sponsor the use of import controls if there is a conflict between the objectives of full employment and balance of payments equilibrium. Article 12 states in its first paragraph that contracting parties "in order to safeguard [their] external financial position and . . . balance of payments, may restrict the quantity or value of merchandise permitted to be imported." Later, paragraph 3(d) makes it clear that import controls may be justified if "the achievement and maintenance of full . . . employment . . . [generates] a high level of demand for imports involving a threat to its monetary reserves." It seems that for the GATT, as for the WTO, the principles of nonselectivity and nondiscrimination are as fundamental as that of free trade as such. In particular, the use of nonselective controls for balance of payments reasons, as envisaged by Article 12, is a totally different kettle of fish from the discriminatory imposition of prohibitive tariffs on imports (for example, on goods imported to the United States from Japan) in support of sectoral interests. Such tariffs have recently been under active consideration by the U.S. government, in flagrant violation of the spirit and letter of the WTO agreements to which it is a signatory. Article 12 has recently received a new gloss in the understanding reached in 1994 as part of the Uruguay Round. Whereas the original Article 12 sponsors the use of quantitative controls (such as quotas) that lead to endless administrative hanky-panky, the new understanding expresses a welcome preference for "price-based" measures, by which it means "import surcharges, import deposit requirements or other equivalent trade measures with an impact on the price of imported goods."

Obiter Dicta

If price-based import controls of the kind sponsored by the WTO (say, a uniform, nondiscriminatory tariff on all imports of goods and services) were used to reduce the U.S. propensity to import, it might be possible, indeed it might be necessary, to cut general taxes (or increase public expenditures) for as long as the tariff was in force. The scale of any tax reduction would depend on the extent to which the tariff was absorbed by foreign suppliers and on the United States's price elasticity of demand for imports.

But what about free trade and its benefits? What about inefficiency caused by the featherbedding of domestic industries that are being kept on their toes by foreign competition? And wouldn't the restriction of imports be neutralized by retaliation on the part of other countries?

It is a well-kept secret that the theory of international trade—the entire story about the benefits every country can gain by exchanging its goods with other countries—depends on the assumptions that (1) trade between countries is balanced and (2) trade does not alter the level of employment or unemployment.¹⁸ To exaggerate only a little, international trade theory proves convincingly that a set of prices can be found such that agents, coming to market with given quantities of goods, can all go away carrying alternative and, to each agent, superior baskets of goods. But the very point at issue, and the strategic predicament to which this *Brief* is drawing attention, is that international trade, if it is endemically *unbalanced*, threatens to impart a disinflationary shock to the U.S. economy that would cause severe unemployment and that the shock would then be transmitted to the rest of the world. In sum, we are envisaging circumstances in which the assumptions necessary to validate conventional propositions about the gains from trade simply do not apply. Far from being able to assume full, or given, employment levels, trade may be the very agent by which employment is about to be destroyed.

The criticisms regarding featherbedding and inefficiency apply with full force to the kind of protectionist measures that the United States has been threatening to impose on Japanese cars and components. It cannot be too strongly emphasized that totally nonselective, price-based measures taken because of a strategic conflict between the need for balance of payments

equilibrium and the achievement of full employment have an entirely different character from selective measures taken to protect sectoral interests. Nonselective "macroprotection" (it might as well be called) does not reduce imports below where they would otherwise have to be in the long run, so it does no harm to the United States's trading partners; the important difference is that imports are brought to an acceptable level at higher levels of domestic output than would otherwise be the case.

As for retaliation, the measures considered here are only those nonselective measures that are in accordance with the provisions of the articles of the WTO and GATT. If, as a consequence, retaliatory measures were taken selectively against the United States, it would be the countries taking such measures that would be acting illegally and the United States could validly complain.

The strategic problems discussed in this *Brief* are characterized as problems specific to the United States and with regard to which the United States may eventually have to take unilateral action. But at a more fundamental level they are problems that have arisen because there is no significant international regulation of the system as a whole. What is at issue are inherent flaws that have developed in the system of international production, trade, and payments as it has expanded and become increasingly deregulated. All the difficulties that exist, or that are foreshadowed in this *Brief*, would be best resolved by energetic international cooperation, of which there is at present little sign.

Appendix: Derivation of Conditional Forecasts of the Debt-to-GDP Ratio

The following assumptions were made to derive conditional forecasts of the debt-to-GDP ratio. First, it was assumed that real GDP grows by 2.0 percent per annum from 1994 onward. Second, the value of (the stock of) net direct investment and of financial liabilities and also the net flow of income from direct investments are all constant shares of the value of GDP. Third, changes in the net stock of foreign assets (direct and financial combined) are equal to the balance of payments on the current account,

with the stock of financial liabilities derived as a residual given the other assumptions. Fourth, the real rate of interest on financial liabilities is assumed to continue to be about 0.5 percent above that on financial assets.

Table A1 provides an idea of the sensitivity of the results to the assumptions made. The three figures on each vertical line refer to the debt-to-GDP ratio in each of the years 2000, 2005, and 2010 for six pairs of assumptions about the primary balance share and the real rate of interest (calculated with respect to the GDP deflator). The results for the debt-to-GDP ratio are (effectively) independent of the rate of inflation assumed.

Table A1 Results of Conditional Forecasts of the Debt-to-GDP Ratio

Share of Primary Balance in GDP	Real Interest Rate					
	3.5 percent			4.5 percent		
	2000	2005	2010	2000	2005	2010
1.5 percent	19	27	35	20	29	39
2.5 percent	24	37	51	25	40	57
3.5 percent	29	47	67	30	51	74

Source: Author's calculations.

Notes

1. The empirical work underlying this *Brief* is based on a study carried out in collaboration with William Milberg of which preliminary results were published in *Challenge* (Godley and Milberg 1994). I am grateful for comments from Ken Coutts, Paul Davidson, David A. Levy, Jay Levy, Hyman P. Minsky, Bob Rowthorn, and Anwar Shaikh.
2. It is remarkable that the "trade-weighted" exchange rates so often published exclude Mexico, although trade with Mexico accounts for about 10 percent of all U.S. trade. The statement in the text is based on an index of the real exchange rate calculated and published by J. P. Morgan that covers 45 countries including Mexico. The fall in this rate since the end of 1995 is much less than one might suppose from all the fuss about yen/dollar and Deutschmark/dollar rates.
3. Taking the 25-year period as whole, the loss of overseas wealth was roughly equal to the sum of the deficits over the period. The upturn in 1993 was an aberration due to the fact that foreign stock markets performed relatively well that year.
4. The term factor income is misleading because it suggests that these payments all arise from factors of production (wherever they might be located throughout the world); sometimes this specific description is given to the series (see, for example, Dornbusch 1988, 42). The interpretation would be valid if assets and liabilities consisted entirely of businesses owned by foreigners here or by U.S. residents abroad. However, it seems inappropriate if, as is the case, assets

and liabilities consist mainly of financial instruments such as Treasury bills and bank balances that are in no sense "factors of production."

5. Treasury Secretary Robert E. Rubin recently expressed concern that dollar weakness might cause the central banks of foreign countries to stop holding large sums of dollars as part of their exchange reserves (Bradsher 1995).
6. This statement assumes normal growth in GDP (2.5 percent per year) and annual inflation of 4.0 percent or less, but it would still be true if inflation were higher as long as nominal interest rates were correspondingly higher as well.
7. Too much should not be made of this last point because the consistent measure of real income should use real, not nominal, interest rates. This would (probably) mean, in the example given, that the loss of real national income so measured would only be 3.0 percent—still enough to hurt. No such qualification has to be made concerning the financing requirement; it is the nominal interest flow that needs to be covered by borrowing in a way that is indistinguishable from that needed for the primary deficit.
8. For instance, using discrete time, the growth in the debt-to-GDP ratio is given by the formula
$$\Delta(d_t/q_t) = -pb_t/q_t + [(\tau_t + g_t)/(1 + g_t)] * d_{t-1}/q_{t-1}$$
where Δ is a first difference operator, d is foreign debt, q is GDP, pb is the primary balance, τ is the real rate of interest on foreign debt, and g is the growth rate. The formula may be very simply rearranged to yield the primary surplus necessary to stabilize the debt-to-GDP ratio.
9. The real rate of interest is calculated throughout this *Brief* according to the Fischer formula, that is, as the nominal rate of interest minus the inflation rate, all divided by one plus the inflation rate. The inflation rate is measured by the GDP deflator.
10. This analysis will be published in a forthcoming paper. I believe this result to be broadly consistent with findings by other researchers (for example, Helkie and Hooper 1988 and Cline 1995) who model trade flows as functions of activity variables and relative prices.
11. The shares are a bit exaggerated because domestic manufacturing is a "value added" concept, while imports of manufactures are measured in "gross" terms. However, the *change* in the share over the 16-year period (the longest period for which figures have been readily available) are correctly estimated.
12. Other important assumptions are that the GDP grows at a rate of 2.5 percent per annum and that the increase in net liabilities is equal each year to the current account deficit, that is, there are no net capital gains or losses. For a fuller account of the model and a sensitivity analysis, see the Appendix.
13. That is,

$$Y = C + I + G + BP$$

where Y is GNP, C is private consumption, I is investment, G is government expenditure on goods and services, and BP the surplus (or deficit) in the current balance of payments. Subtracting government taxes and other transfers (T) from both sides and rearranging yields

$$Y - T - C - I = G - T + BP$$

which says that the excess of private saving ($Y - T - C$) over investment is, by definition, equal to the government deficit plus the current account surplus (or minus the deficit).

14. This point is an answer to those who quibble that the United States should not be called a "debtor" nation just because the net asset position is negative.
15. Most empirical research finds a large income elasticity of demand for U.S. imports. In the example it has been assumed that the elasticity is 2, that is, the proportional reduction in imports is assumed to be twice as large as that of GDP.
16. Okun's law—in reality, a rule of thumb—postulates that the unemployment rate will rise (decline) by one percentage point for every two percentage points fall (rise) in the real growth rate of output (GDP) (above the long-term trend).
17. The statement about how the market for foreign exchange clears is consistent with that described in the ubiquitous "Mundell-Fleming" model. The fatal weakness of this model is precisely that the "equilibrium" it describes ignores asset and liability accumulation.
18. This can be ascertained by a careful reading of any textbook on the subject; see, for instance, Caves and Jones 1985 or Krugman and Obstfeld 1991.

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Godley's work has centered on the development of an accounting-based model of the open U.S. economy that utilizes accounting stocks and flows measured at both current and constant prices. He has used the model to pose questions about the efficacy of the international payments adjustment system in light of the deterioration of the U.S. trade deficit since 1991. With co-author George W. McCarthy Jr. of Bard College, Godley is completing an economics textbook based on his model. In addition to his quarterly reports to the Exchequer, his recent publications include "U.S. Trade Deficits: The Recovery's Dark Side?" (co-authored with William Milberg), "The British Economy Under Mrs. Thatcher," (co-authored with Ken Coutts), and "Time, Increasing Returns and Institutions in Macroeconomics."