



The Levy Economics Institute of Bard College

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# *Strategic Analysis*

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## THE UNITED STATES AND HER CREDITORS: CAN THE SYMBIOSIS LAST?

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### Introduction

The main arguments in this paper can be simply stated:

- If output in the United States grows fast enough to keep unemployment constant between now and 2010, and if there is no further depreciation in the dollar, the deficit in the current account is likely to get worse, perhaps reaching 7.5 percent by the end of the decade.
- If the trade deficit does not improve, let alone if it gets worse, the United States's net foreign asset position will deteriorate greatly, so that, with interest rates rising, net income payments from abroad will at last turn negative, and the deficit in the current account as a whole could reach at least 8.5 percent of GDP.
- Net saving (saving less investment) by the private sector is now (exceptionally) negative, to the tune of 2 percent of GDP, because of a spectacular increase in net lending to the personal sector. Our strong view is that, before the decade is out, the housing market will have peaked, a development that will check the growth in personal debt and reduce net lending. The resulting rise in personal saving will probably be enough to bring about some recovery in net saving by the private sector as a whole, increasing it from minus 2 percent to zero or even more.
- If the current account deficit reaches 8.5 percent of GDP in the next five years, and if the private deficit rises to zero, it follows as a matter of accounting logic that the (general) government's deficit must be increased from its present 4 percent of GDP to 8.5 percent, while public debt rises toward 150 percent of GDP in the long run.

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- *If nothing happens to improve net export demand and if the U.S. government is unwilling to apply this huge fiscal stimulus, the U.S. economy will enter a period of stubborn deficiency in aggregate demand with serious disinflationary consequences at home and abroad.*
- If the dollar's real rate of exchange were soon to fall by about 25 percent, adequate growth in the United States might be sustained, with declining deficits both in the budget and in the current account balance, so long as domestic demand was substantially curtailed by restrictive fiscal measures while overseas demand was increased by an accompanying fiscal expansion. But the real exchange rate has not moved decisively during the last seven years, and, so long as China and some other Asian countries continue to accumulate reserves on the same huge scale, it is unclear that the needed devaluation will occur.
- Protection directed selectively against countries with large trade surpluses against the United States—China, in particular—would not solve the problem and would be a very retrograde step in terms of global trading arrangements. If there must be protection (which we are not recommending), the U.S. government might prefer to follow the principles laid down in the World Trade Organization's (WTO) Article 12.
- A resolution of the strategic problems now facing the U.S. and world economies can probably be achieved only via an international agreement that would change the international pattern of aggregate demand, combined with a change in relative prices. Together, these measures would ensure that trade is generally balanced at full employment. *But there is no immediate pressure to bring such a change about because of the "symbiosis" to which our title refers.* The short-term advantage of the present situation to the United States is that she is consuming 6 percent more goods and services than she produces, with high employment, low interest rates, and low inflation. The advantage to Japan and Europe is that their exports to the United States have helped fuel their mild aggregate demand growth, while China and other East Asian countries are building a mighty industrial machine by exporting growing quantities of manufactures and simultaneously accumulating a huge stock of liquid assets. This syndrome brings the word "mercantilism"<sup>2</sup> to mind, with U.S. securities acting as the modern equivalent of gold. Those hoping for a market solution may be chasing a mirage.

## The Conceptual Framework

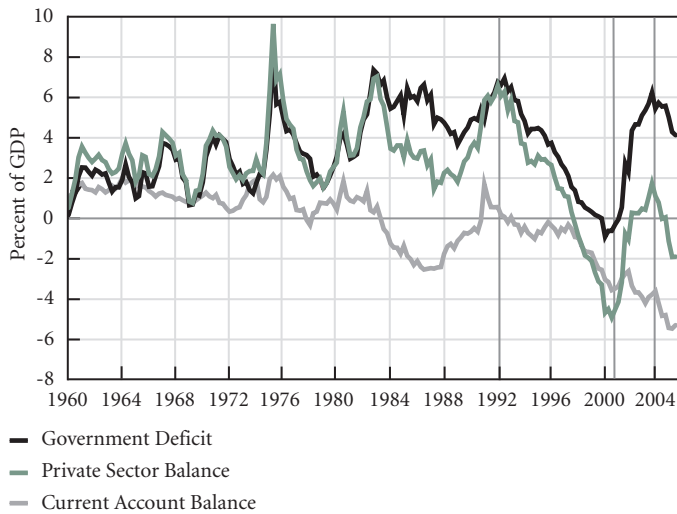
A well-known accounting identity says that the current account balance is equal, by definition, to the gap between national saving and investment. (The current account balance is exports minus imports, plus net flows of certain types of cross-border income.) All too often, the conclusion is drawn that a current account deficit can be cured by raising national saving—and therefore that the government should cut its budget deficit. This conclusion is illegitimate, because any improvement in the current account balance would only come about if the fiscal restriction caused a recession. But in any case, the balance between saving and investment in the economy as a whole is not a satisfactory operational concept because it aggregates two sectors (government and private) that are separately motivated and behave in entirely different ways. We prefer to use the accounting identity (tautology) that divides the economy into three sectors rather than two—the current account balance, the general government's budget deficit, and the private sector's surplus of disposable income over expenditure (net saving)—as a tool to bring coherence to the discussion of strategic issues.<sup>3</sup> It is hardly necessary to add that little or nothing can be learned from these financial balances measured *ex post* until we know a great deal more about what else has happened in the economy—in particular, how the level of output has changed.

## The Story So Far

Figure 1 shows how the three financial balances have moved since 1960.<sup>4</sup> The top line describes the general government's budget (expressed as a proportion of GDP) written as a deficit, the bottom line shows the current account balance written as a (negative) surplus, and the intermediate line describes the net saving of the private sector. The signs are as they are because a budget *deficit* and a current account *surplus* both create net saving (and net financial assets) for the private sector; thus, net saving by the private sector is easily seen as the sum of the government deficit and the (negative) current account surplus. The 45-year period is shown to illustrate how, until recently, all three balances fluctuated within fairly narrow bounds and also to emphasize how their movement since 1992 has been completely different from anything that has happened before.

The period since 1992 may be divided into three phases. The years 1992–2001 gave us the "Goldilocks" economy. But

**Figure 1 Main Sector Balances, Historical**



Sources: BEA and authors' calculations

throughout Goldilocks, the budget surplus and the current account deficit were both subtracting purchasing power from the economy at growing rates, implying that the expansion was entirely caused by a huge rise in private expenditure relative to income, which drove net saving into deficit on an unprecedented scale. It should have been obvious at the time that this configuration of impulses was unsustainable. In the second period, 2001–2002, private net saving rose sharply. There was also a small recession, which would have been very much larger had not a significant relaxation of fiscal policy driven the budget into deep deficit. Since 2002, there has been a renewed expansion. The current account deficit has continued to grow, and the budget deficit has decreased somewhat, so there has once again been a rise in private expenditure relative to income, which has driven private net saving deeply into negative territory once again.

It has only been since the imbalances became so very large and intractable, roughly during the last two years, that the United States's strategic problems have spawned a large number of academic papers. We shall discuss various contributions to this literature seriatim, but it seems fair to say that none of the mainstream authors have informed their work with a model, formal or informal, in which all the major components of the economy are seen as a fully interdependent system evolving through time, thereby providing a framework within which a range of strategic policy options can be evaluated.<sup>5</sup>

Yet the evolution of the U.S. economy and the likely emergence of these imbalances in the absence of good policies were both foreseen in elaborate detail in a series of papers published contemporaneously by The Levy Economics Institute. For instance, in mid-2001, well before recession had been officially declared, the Institute published a paper that suggested:

The U.S. economy is probably now in recession, and a prolonged period of subnormal growth and rising unemployment is likely unless there is another round of policy changes. A further relaxation of fiscal policy will probably be needed, but if a satisfactory rate of growth is to be sustained, this will have to be complemented by measures that raise U.S. exports relative to imports. . . .

. . . If GDP were to grow fast enough to maintain full employment, and if the dollar remained at its present parity, the deficit in the current balance of payments would probably rise to about 6 percent of GDP in 2006. With a zero private balance and a 6 percent balance of payments deficit, there would, by the rules of accounting logic, have to be a general government deficit equal to 6 percent of GDP. As the CBO [Congressional Budget Office] is predicting a budget surplus of almost 2 percent of GDP based on the same output and inflation assumptions, the startling implication is that to make our story come true, there would have to be a further fiscal relaxation equal to 8 percent of GDP in 2006—roughly \$700 billion at today's values. The famous twin deficits last seen in the 1980s would have returned with a vengeance! . . .

But while a fiscal expansion on the scale mentioned in the previous paragraph might indeed secure full employment over the next five years, this by itself would not come close to achieving balanced and therefore sustainable growth. This is because a huge fiscal expansion on its own would have as its counterpart a catastrophic deterioration in the United States's current balance of payments (and net foreign asset position) between now and 2006—with no presumption that the deterioration would not continue indefinitely into the future. (Godley and Izurieta 2001)

This passage, though obviously imperfect, gives a reasonably good idea of what was in store. There was indeed a recession, and a huge additional fiscal expansion was indeed required to get the economy moving again. The budget deficit is now (mid-2005) around 4 percent of GDP compared with

the surplus equal to 2 percent of GDP that the CBO forecast for 2005 in 2001—a forecast that was based on the assumption that output would grow at an average rate of 3.3 percent per annum, which is quite close to what actually happened.<sup>6</sup> It is therefore fair to conclude that there has been a fiscal expansion, compared with what was then the government’s policy, equal to about 6 percent of GDP; this amount is less than the 8 percent which we conditionally predicted four years ago, but still extremely large. Furthermore, we forecast a deficit in the current account balance equal to 6 percent of GDP in 2006 on the assumption that fiscal policy alone was used to expand the economy—in the absence, that is, of policies to increase net export demand. It was our major conclusion that market forces would probably not be sufficient to correct the imbalances by themselves, and that a new kind of global cooperation would eventually be required.

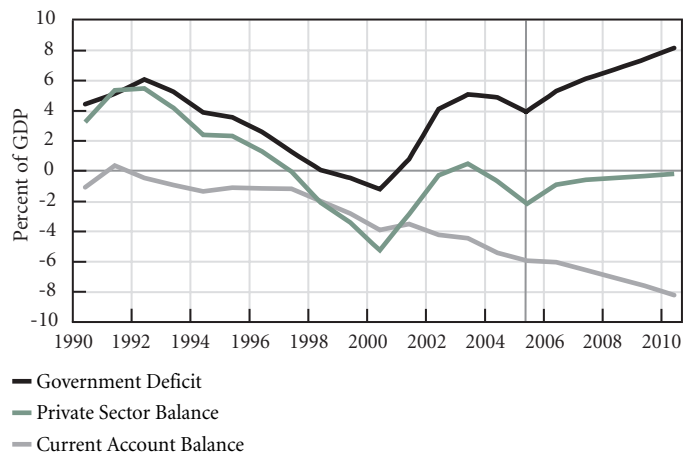
### Strategic Issues in the Medium-Term Future

The present analysis starts, as usual, with a baseline projection of the three financial balances based on the assumption (not a forecast) that the economy will grow at an average rate of 3.3 percent per annum between 2005 and 2010. See Figure 2. This growth rate is believed to be one at which official unemployment neither rises nor falls, and it corresponds reasonably well with estimates made in the *Economic Report of the President* (ERP; Council of Economic Advisers 2005) and the January report of the CBO. Our immediate purpose is to make projections of the current account balance and of private net saving in order to explore what has to happen to fiscal policy if growth at that rate is to be achieved. These projections are not to be interpreted as year-by-year forecasts but as medium-term tendencies. The following sections discuss the assumptions on which the baseline projection is based.

### The Balance of Trade

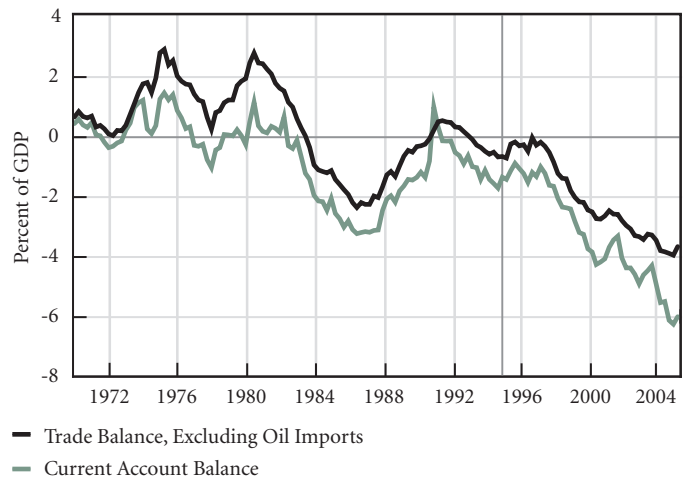
Our projection that the trade deficit will continue to rise slowly if there is no further devaluation and if output rises fast enough to keep unemployment constant seems uncontroversial. As Figure 3 shows, the long-term trend in the balance of non-oil trade has been adverse almost continuously during the last 25 years. The major fluctuations that occurred in the 1980s are reasonably well explained, using the equations in our model, by the

**Figure 2 Baseline. Main Sector Balances**



Sources: BEA and authors’ calculations

**Figure 3 Trade Balance and Current Account Balance**



Sources: BEA and authors’ calculations

fluctuations in output and also by the (violent) fluctuations in the real exchange rate that occurred at that time.

The real exchange rate has not changed decisively since 1998, while the current account deficit has risen in a striking way. There was an increase in the value of the dollar of about 10 percent between 1998 and 2002, and there was a slightly larger proportionate fall during the last three years. This recent fall in the exchange rate seems, rather surprisingly, to have had no effect on import prices, and this may in part explain why imports have continued to rise so fast. Equally surprising, the fall in the exchange rate appears to have had no effect on the

dollar price of exports, implying that there has been a significant fall in export prices denominated in foreign currency—and this may be the reason why exports in the first half of 2005 have performed fairly well. Yet a one-time fall in relative export prices will probably do nothing more than raise the level of exports without affecting their long-run growth rate.

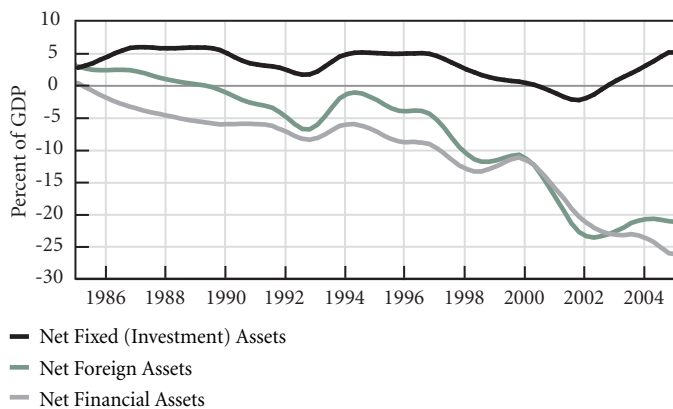
Our projection is based on simulations using standard econometric specifications. We have assumed that world output<sup>7</sup> will grow at 3.2 percent in 2005 and slightly faster in the following years. Our results amount to a reassertion of the remorseless adverse trends identified long ago in the famous study by Houthakker and Magee (1969). As many people have noted, the value of imports now exceeds that of exports by about 60 percent. If imports continue to rise by 8 percent per annum, and if the terms of trade do not change, the volume of exports would have to rise considerably faster than in the past, by 12.5 percent per annum sustained over the whole five-year period, just to keep the non-oil balance of trade from deteriorating further.

The rise in the price of oil over the past year has added \$60 billion at an annual rate to the value of imports. We have assumed in the medium term the oil price will fall back to its spring 2005 level, but recognize the likely possibility (especially in view of the recent upward price movement due to Hurricane Katrina) that there will be a further large rise by 2010, in which case the deficit in the balance of trade could rise much higher than the 7.5 percent of GDP we have assumed.

### International Investment and Foreign Income Flows

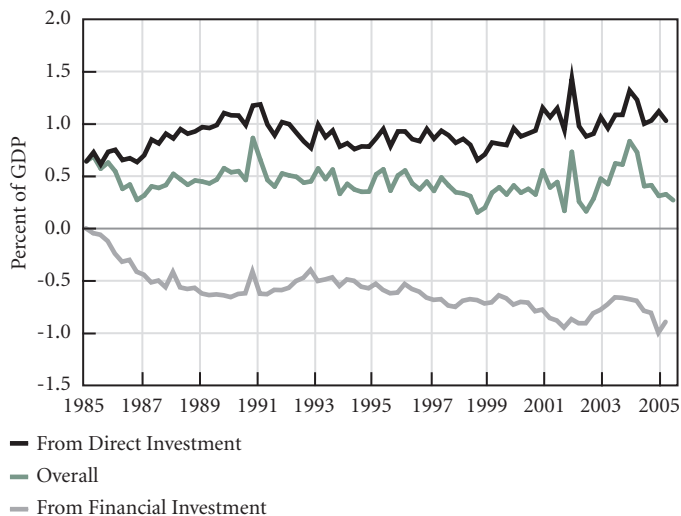
It has been a baffling feature of the current account balance figures that, while foreign liabilities exceed assets by about 2.1 trillion, the net flow of investment income has remained obstinately positive. Matters were not clarified by a long series of revisions to the statistics (both stock and flows), nearly always in a favorable direction, and the very latest figures are no exception. It now appears that, despite a cumulative current account deficit equal to 14.5 percent of GDP, the negative asset position of the United States at the end of 2004 was virtually unchanged compared with 2001 because of price and exchange rate changes. Figure 4 shows the recent path of the total net asset position, split between direct investments valued at market prices and other (financial) investments. The net stock of

**Figure 4 Asset Position of the United States**



Sources: BEA and authors' calculations

**Figure 5 Net Income Flows from Abroad**

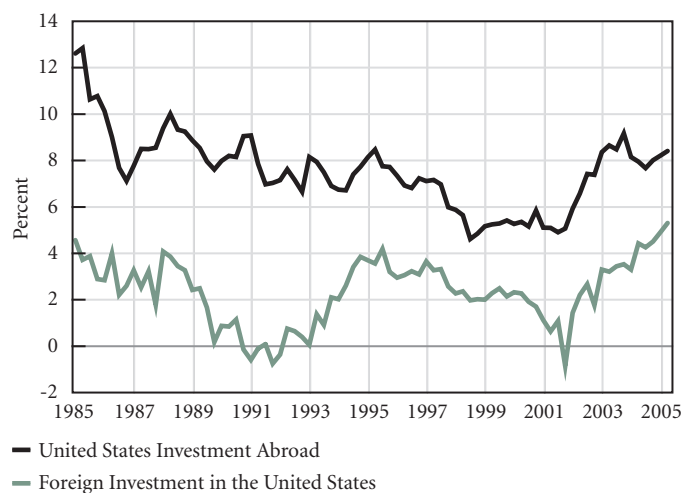


Sources: BEA and authors' calculations

direct investment has been close to zero through the last 20 years, implying, as the figure shows, that almost all of the deterioration in the net asset position has taken the form of financial investment.

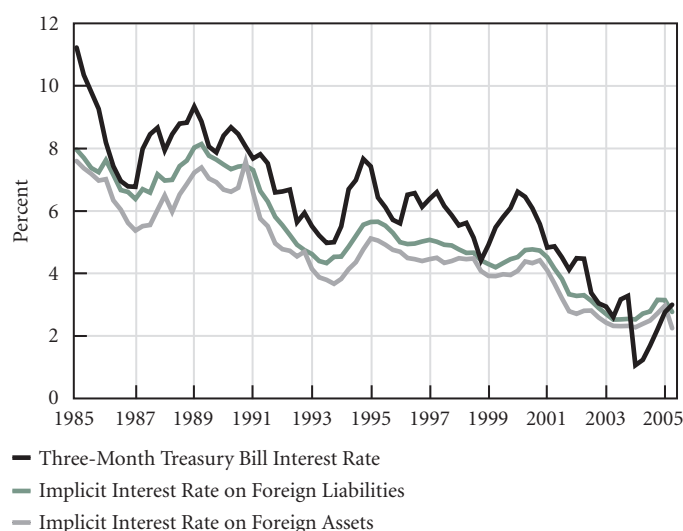
Figure 5 shows the net income associated with each kind of (net) investment, revealing that the growing outflow generated by financial investment was almost exactly matched by a growing inflow from direct investment. Figures 6 and 7 show the quasi interest rates earned on each broad type of asset or liability, obtained crudely by dividing each flow by the relevant stock lagged one period. Figure 7 also shows the three-month

**Figure 6 Implicit Return on Direct Investment**



Sources: BEA and authors' calculations

**Figure 7 Interest Rates**



Sources: BEA, Federal Reserve, and authors' calculations

Treasury bill rate. As Figure 6 shows, the rate of return on direct investment abroad has been much higher than that on direct investment in the United States, although new and revised figures for the latter, in contrast to what was previously reported, have been rising significantly. The case is entirely different for financial investment, shown in Figure 7. Inward investment has consistently earned a *higher* rate of return than outward investment, and both have tracked the three-month Treasury bill rate quite closely.

For the future, as we assume no change in the exchange rate in the baseline projection, we project a constant net stock of direct investment, implying a continued deterioration in the net stock of financial assets equal each year to the current account deficit. These assumptions, taken together, imply that the total net stock of assets falls to minus 30 percent of GDP in 2010. And according to this (admittedly crude) analysis, the net income flow will deteriorate perceptibly, at last turning from positive to negative by enough to take the overall deficit in the current account to about 8.5 percent of GDP by the end of the decade.

### Net Saving by the Private Sector

In the second quarter of 2005, private net saving was minus 2 percent, as shown in Figure 1 at the beginning of this paper. As private net saving was almost always positive before the mid-1990s, we start with a general presumption that over the next five years it will revert toward its historic mean to some degree. This presumption is justified by consideration of the recent movement of net lending to, and net saving by, the personal sector.

Figure 8 shows net lending to the personal sector (as a percent of disposable income) since 1960, together with total net saving, scaled in the same way. The two series have a clear, if irregular, inverse relationship. Until the early 1990s, the cycles had an average duration of about five years, and neither series departed for long from plus or minus 4 percent relative to its long-run mean. But the path of both series since 1992 has been vastly different from anything previously experienced. Net lending has risen rapidly while net saving has fallen rapidly, in each case to record (positive and negative) levels. Net lending is now at least 6 percent above its long-term mean, while net saving is at least 8 percent below its own mean.

The relationship between debt and lending (the change in debt) has given rise to so much confusion that it is worth digressing to spell out the interrelationships involved. Figure 9 shows (using the left-hand scale) the history of net lending to the personal sector as a proportion of disposable income since 1975. It also shows the debt itself (using the right-hand scale) as a proportion of disposable income. The crucial point is that an absolute fall in the lending ratio (i.e., net lending as a percent of income) may be quite consistent with a continuing rise in the debt/income ratio.<sup>8</sup> As the figure shows, this is what happened on a grand scale from 1984 through 1990. At that time







cue. At the latest count, net saving by the corporate sector is not far from its long-run average. It is recognized that if there is a sustained rise in total output between now and 2010, as we assume in the baseline projection, corporate investment would probably recover, a development that could drive corporate net saving into deficit once again.

We take the view that the prospective rise in net saving by the personal sector from its present extraordinarily low level will be large enough to ensure that net saving by the private sector as a whole, which is now about 4.5 percent below its long-run average, will rise by at least 2 percent over the next five years and possibly by much more.

### **Implications for Fiscal Policy**

As pointed out at the beginning of this analysis, if the current account balance reaches 8.5 percent of GDP, and if private net saving is zero, it follows by accounting identity that the general government deficit must rise to 8.5 percent of GDP. While this conclusion has been reached by logical inference, it has a very clear economic meaning. One imagines a situation in which aggregate demand is being rapidly depleted at an increasing rate by higher saving and a negative current account balance. If there is to be an adequate growth in aggregate demand, this hemorrhage needs to be offset by increasing transfusions in the form of net income generated by the government.

If aggregate demand and output are not stimulated in this way, the postulated trends in personal saving and net export demand are likely to inaugurate a period of growth recession, which could be aggravated by feedback effects, for instance from asset markets, including the housing market; from investment; and indeed from the rest of the world. As the current account deficit would tend to improve under these circumstances, the emphasis in the public discussion could well shift away from whether and how the current account could be improved to how the putative stagnation could be cured. But there is only one way in which stagnation could be avoided (if a huge rise in the budget deficit is ruled out of order): a sustained increase in net export demand (which means that exports have to rise relative to import penetration).

### **How Can Net Export Demand Be Improved?**

The classic way to improve net export demand is via the price mechanism. In the literature that has grown up around the global imbalance problem, some authors (e.g., Obstfeld and Rogoff 2005) try to infer the scale of the relative price change that is necessary if the U.S. deficit is to be reduced to manageable proportions, but they do not explain how that change is to be brought about. Fred Bergsten (2005) speaks with two voices. On the one hand he claims, rather as though this is something to be feared, that “it is only a matter of time until the dollar falls by another 20 percent or so and adjustments are forced on deficit and surplus countries.” But he also says, “Pre-emptive measures are needed to head off [the] risk [of protectionism]. . . . The most important is for China to revalue by a meaningful amount, using its large budget surplus to stimulate domestic growth.” This seems to be an admission that the needed revaluations will not occur naturally in a timely fashion. Paul Krugman (2005) warns, in our view correctly, that the coming fall in credit-financed personal expenditure relative to income will drive the economy into recession but he has nothing to say about how this can only be avoided by somehow increasing net export demand.

There are other commentators (e.g., Blanchard et al. 2005, p. 3) who “develop a simple portfolio model of exchange rate and current account determination and use it to interpret the past and explore the future.” But it is doubtful whether (more or less conventional) portfolio models of exchange rate determination are relevant at the present time because they depend on the assumption that the market players are all individual maximizing agents; so, the argument goes, if the share of assets issued by the United States in the world stock of internationally traded assets rises, as must happen if the country runs a large deficit, then the price of those assets must be progressively forced down. One objection to this line of argument is the brute fact that the dollar has not depreciated (significantly) during the last seven years. A more powerful objection is that the most important market players are not maximizing individual agents at all, at least in the normal sense, but central banks that have specific and very different agendas.

One of many ways in which the present situation is different from conventional models is that the United States is the predominant deficit country while simultaneously the U.S. dollar is the currency in which the rest of the world holds its reserves, so that there is no question of America itself running

out of reserves. In our view, there is no constraint on the extent to which the foreign central banks (FCB) of surplus countries can support the dollar by buying U.S. securities, and they need not suffer any adverse inflationary consequences if they do so. The United States issues securities and the FCB buys them in a self-contained process, without any increase in the “money supply” of foreign economies beyond the needs of trade (Godley and Lavoie, forthcoming).

In particular, it looks as though China and some other Asian countries are mainly interested in becoming first-class world powers by developing their industrial capacities and are happy to acquire a vast store of liquid assets in the process. They regard these assets as a source of security and power, which is apparently being used for the extraction of oil and other resources from many countries around the world. Surely, the possibility that at some future date the market value of those reserves might fall if and when the dollar does depreciate is a minor consideration for them. So far as we can see, there is nothing the United States can do about this on her own without resorting to unconventional measures. Nor does America have any immediate reason for seeking a change. The nation is in the unusual position of being able to consume 6 percent more resources than she produces without suffering any inflationary pressure. It is impossible for the economy to be “rebalanced” without a large and painful cut in domestic absorption; if the deficit is to be cut by, say, 3–4 percent of GDP, this is also the amount by which domestic absorption of goods and services must be reduced.

The important qualification to what is written above is that increasing penetration of U.S. markets by foreign exports is having a devastating effect on what remains of the U.S. manufacturing industry, and this damage has already given rise to a great deal of protectionist pressure. But imposing a heavy tariff or quota restrictions selectively (e.g., on textiles imported from China), apart from the deplorable effect it would have on global trading arrangements, would hardly be effective as a way of rebalancing the U.S. and world economies as a whole.

### **Nonselective Protection**

If pressure for selective protection threatens to become irresistible, the U.S. government might consider a less damaging alternative. It is not always remembered that the articles of the General Agreement on Tariffs and Trade (GATT 1947), which

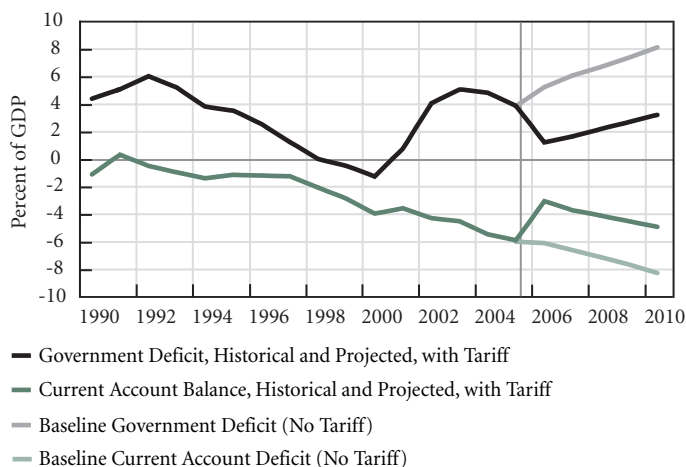
were adopted with some important modifications by the WTO, sponsor the use of import controls if there is a conflict between the objectives of full employment and current account equilibrium. Article 12 states in its first paragraph that contracting parties “in order to safeguard their external position and . . . balance of payments, may restrict the quantity or value of imports permitted to be imported.” The original Article 12 specified that any import controls should take the form of quantitative restrictions,<sup>12</sup> but the new WTO version expresses a welcome preference for “price-based” measures, by which it means “import surcharges, import deposit requirements, and other equivalent trade measures with an impact on the price of imported goods.”

In view of the potentially serious and intractable strategic predicament that looms in the medium term, it is appropriate that the possibility of introducing nonselective, price-based import restrictions—call them “Article 12 Restrictions” or “A12Rs” for short—should be calmly considered without fear that we or anyone else will be accused of political incorrectness or treason to the economics profession.

A devaluation of the currency, the proper remedy for imbalances, is virtually equivalent, in its effect on the current account and in all other respects, to the imposition of a uniform tariff on all imports accompanied by a subsidy of equivalent value on all exports. The main difference resides in the fact that a tax/subsidy scheme does not imply any revaluation of overseas assets and the income they generate. It is, accordingly, difficult to see why the introduction of a uniform surcharge on all imports, which may be seen as half of a devaluation, should arouse such passionate opposition, *so long as the surcharge is completely nondiscriminatory with regard both to product and to country of origin*. The significant difference between devaluation and A12Rs is that the former tends to result in a deterioration in the terms of trade for the devaluing country while the latter tend to improve them—but this difference is not likely to be of great quantitative importance.

Ignore, for a moment, the extreme difficulty of ensuring total nondiscrimination and the extremely bad impression that would inevitably be created internationally by the use of A12Rs. First, unlike devaluation, which is only remotely possible as a policy option, the U.S. government can impose A12Rs almost at will.<sup>13</sup> They could conceivably take the form of an auctioned quota scheme,<sup>14</sup> which would use a market mechanism to ensure that the (ex-tax) value of imports is relatively

**Figure 12 Scenario with a Tariff on Imports:  
Main Sector Balances**



Sources: BEA and authors' calculations

quickly restricted to what can be paid for by exports. Under such a scheme, all imports would need to be licensed, with the number of licenses restricted—with respect to the value of imports permitted—to correspond with some (high) proportion of exports in a recent period. The price of licenses to importers would then be determined by supply and demand.

To satisfy ourselves that the use of nondiscriminatory tariffs could generate an improvement in the trade balance and to explore various other properties of such a venture, we introduced a tariff scenario into our formal model. Starting from our baseline projection, it was assumed that a uniform tariff would be imposed at the rate of 25 percent on all non-oil goods at the beginning of 2006, generating additional revenue of \$370 billion for the government. The second assumption related to the rate of pass-through, which is the extent to which the cost of tariffs would be passed along to U.S. consumers. The rate of pass-through was assumed to be 50 percent, implying a rise of 12.5 percent, including taxes, in the price of imports and in consequence a 2–2.5 percent fall in their volume. These changes are relative to what otherwise would have happened. It was further assumed that retaliatory surcharges (at an average rate of 10 percent) would be imposed by foreigners on U.S. exports, with effects on U.S. export prices and volumes matching those assumed for imports.

The results of this exercise, shown in Figure 12, were seductive if wildly uncertain, because they show a significant improvement both in the current account and in the budget deficit,

without an adverse effect on the growth rate of total output. The positive stimulus coming from higher net exports was almost exactly balanced by the negative effect on private expenditure because of higher after-tax import prices, making any additional fiscal restriction unnecessary. The standard question always asked at this point is, “When would the tariff be removed?” and to this there is an easy answer, namely, “When there is a global consensus to rearrange patterns of trade and production so that they are sustainable in the long term.”

## Conclusion

The range of strategic policy options for the United States is beginning to narrow. The deterioration in the U.S. current account balance was first (1992–2001) offset in terms of its effect on aggregate demand by a large, credit-financed rise in private expenditure relative to income; in 2001–03, it was offset by a massive fiscal stimulus; in 2003–05, it was offset by a renewed rise in private expenditure, once again financed by an expansion of net lending. Since net lending to the private sector must be close to its peak, a continued deterioration in the current account balance in the medium term may only be possible if the budget deficit, already high, is increased by a further massive amount. Accordingly, while the performance indicators (output, employment, etc.) are favorable at the moment, it has become urgently important for the United States to increase net export demand in the medium term.

As the normal equilibrating forces (changes in exchange rates) are being subverted, it is very far from obvious what the United States can do on her own. A satisfactory long-term solution probably resides in new international arrangements, in which the price mechanism (i.e., revaluation of currencies) redirects trade flows, while changes in fiscal and monetary stances (restrictive in the United States and expansionary in many other countries) sustain aggregate demand on a global scale. There is pressure to use selective protection, a factor that could conceivably force the issue, but before consenting to this, the U.S. government might prefer to follow the nondiscriminatory principles set out in Article 12 of the WTO.

## Notes

1. The authors are grateful to Woody Brock, Bill Martin, Bart Mauldin, Randy Wray, and Warren Mosler for penetrating comments.
2. According to [www.britannica.com](http://www.britannica.com), the underlying principles of mercantilism are “1) the importance of possessing a large amount of the precious metals; 2) an exaltation a) of foreign trade over domestic, and b) of the industry which works up materials over that which provides them; 3) the value of a dense population as an element of domestic strength; and 4) the employment of state action in furthering artificially the attainment of the ends proposed.”
3. To spell it out yet again:  $Y = PX + G + X - IM + YF$  where  $Y$  is GNP,  $PX$  is private expenditure,  $G$  is government spending,  $X$  is exports,  $IM$  is imports, and  $YF$  is net income from abroad, all measured at current prices. Deduct tax and transfers from both sides and rearrange to obtain  $Y - T - PX = (G - T) + (X - IM + YF) = \text{BUDGET DEFICIT} + \text{NAFA} + \text{CA}$  where NAFA is the private sector’s net acquisition of financial assets and CA is the current account balance. The same identity can be rearranged in another way that can be suggestive. Divide all variables by the GDP deflator and, using lower case to describe real quantities, define ratios  $T = \tau \cdot Y$ ;  $IM = \mu \cdot Y$ , and  $NAFA = \beta \cdot Y$ . We then have, by definition, real output  $Y = [G + X]/[\tau + \mu + \beta]$ . The variables  $G$  and  $X$  can be thought of as largely exogenous. The ex post ratios,  $\tau$ ,  $\mu$ , and  $\beta$ , are obviously not parameters but they can each be evaluated on their own merits so long as the interdependence of the system as a whole is kept in mind all the time.
4. Apologies to readers if our series of papers contains a lot of repetition. We are taking repeated snapshots of a slowly moving train, and much overlap is unavoidable if each story is to be self-contained.
5. Thus many of those who write about the current account deficit largely ignore the other things that have to happen if there is to be an improvement. For instance, Catherine Mann (2004) has made a conditional prediction that the current account balance could reach 13 percent of GDP, but has not made the inference that such an outcome, for reasons elaborated below, could come about only if the general government’s budget deficit were to rise from 3.5 percent of GDP to something in the range of 10–16 percent. On the other hand, those who write complete (as opposed to partial) models—for example, Obstfeld and Rogoff (2005)—have phrased their arguments in terms of patently artificial exchange economies with fixed endowments, leaving the reader with the difficult task of translating the “message” of these “parables” to more meaningful contexts.
6. It should be noted that CBO forecasts, by construction, do not take into consideration changes in legislation (for example, the ones introducing the tax cuts in the George W. Bush years).
7. Our forecasts are based on individual country forecasts for 2005 and 2006 from IMF (2005) and trend projections from 2007 onwards. Individual countries are weighted according to the procedure described in Dos Santos, Shaikh, and Zezza (2003) to derive a measure of world GDP growth relevant for U.S. trade.
8.  $D = D(-1) + L$ , then  $D/Y = (D(-1) + L)/Y$ , using -1 to indicate the previous period’s value. Thus, it is easy to see that  $D/Y$  is bigger than  $D(-1)/Y(-1)$  whenever the rate of growth of debt (i.e.,  $L/D(-1)$ ) is greater than the rate of growth of income (i.e., the increase in  $Y$  divided by  $Y(-1)$ ). This can very well happen with a fallen  $L/Y$ .
9. To spell this out, suppose that people aimed to have a debt equal to 100 percent of housing wealth, and suppose that income and house prices both normally rise at 5 percent per annum. If housing wealth now enjoys a one-time rise from one to three times the annual flow of income, “safe” net lending could rise permanently from 5 percent to 15 percent of income.
10. Using the Fed’s “financial obligations” measure of the burden.
11. [www.loansrc.com](http://www.loansrc.com)
12. This was drafted by James Meade, who informed one of the authors that against his very strong personal opinion he had been compelled by the U.S. delegation to specify quantitative controls. He would have been pleased by the new version adopted in 1994 as part of the Uruguay Round.
13. It is not suggested that the United States actually invoke Article 12, just that it follow Article 12 principles.
14. Such a scheme has already been suggested by Warren Buffett (2003).

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