

**U.S. Foreign Trade, the Budget Deficit  
and Strategic Policy Problems:  
A Background Brief**

**by**

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## SUMMARY

If the US trade deficit remains around its present level for a few more years it will generate an exploding growth in overseas indebtedness which will imperatively demand correction at some stage. The longer the correction is postponed, the more intractable the problem will become both for the US and, indirectly, for the rest of the world. While the internal (budget) and external deficits are obviously not "twins", they are related to one another in a way which makes it impossible to eliminate one without eliminating the other. If an attempt were made to balance the budget without improving America's performance in international trade, the consequences for output and unemployment, both at home and abroad, would be extremely unpleasant. It is a pre-condition for reducing the budget deficit without generating a depression that US exports rise substantially relative to import penetration.

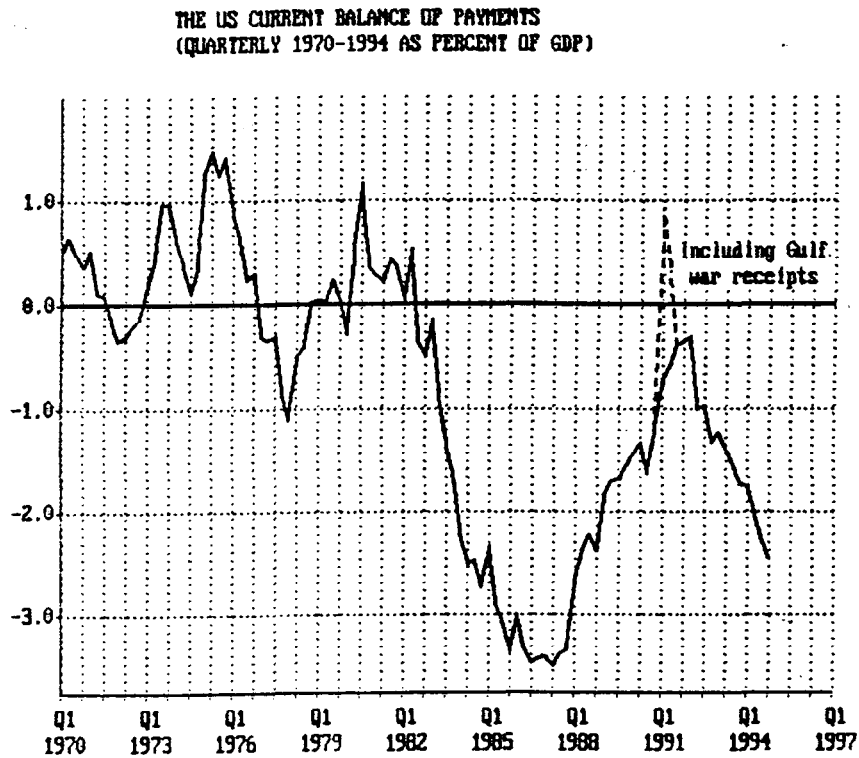
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<sup>1</sup>The first part of this brief reproduces work already published in collaboration with William Milberg

THE US BALANCE OF PAYMENTS<sup>2</sup>

Chart 1 shows the evolution of the US current balance of payments during the last twenty four years.

CHART 1



Although there have been large fluctuations in this balance, there has been a significant tendency for it to deteriorate taking the period as a whole, the trend being more clearly revealed if the "one off" contributions by foreigners to the cost of the Gulf War are shown separately. In the mid-seventies there was a surplus equal to about 1% of GDP; in 1994 there was a deficit in excess of 2%, which rose rapidly during the course of the year reaching 2.5% in the last quarter.

<sup>2</sup>The current balance is taken to be "net foreign investment" as shown in Table 4.1 of the NIPA. There exists another definition of the current account balance which is normally about .2% of GDP more in deficit than the NIPA version. The NIPA version is used here because it can be more readily related to national income concepts.

CHART 2

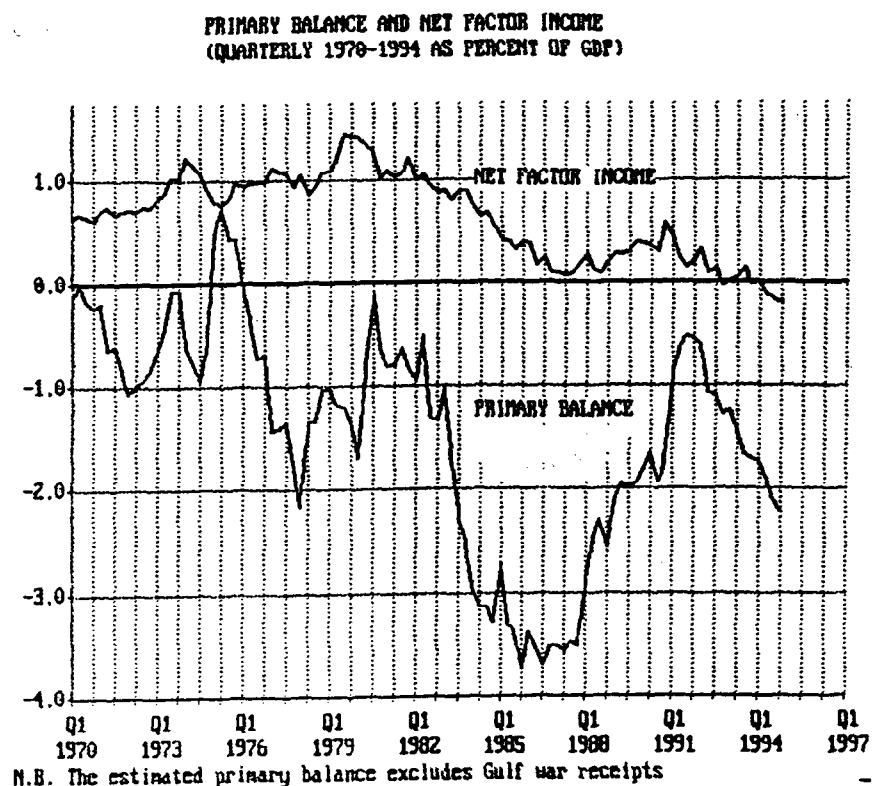


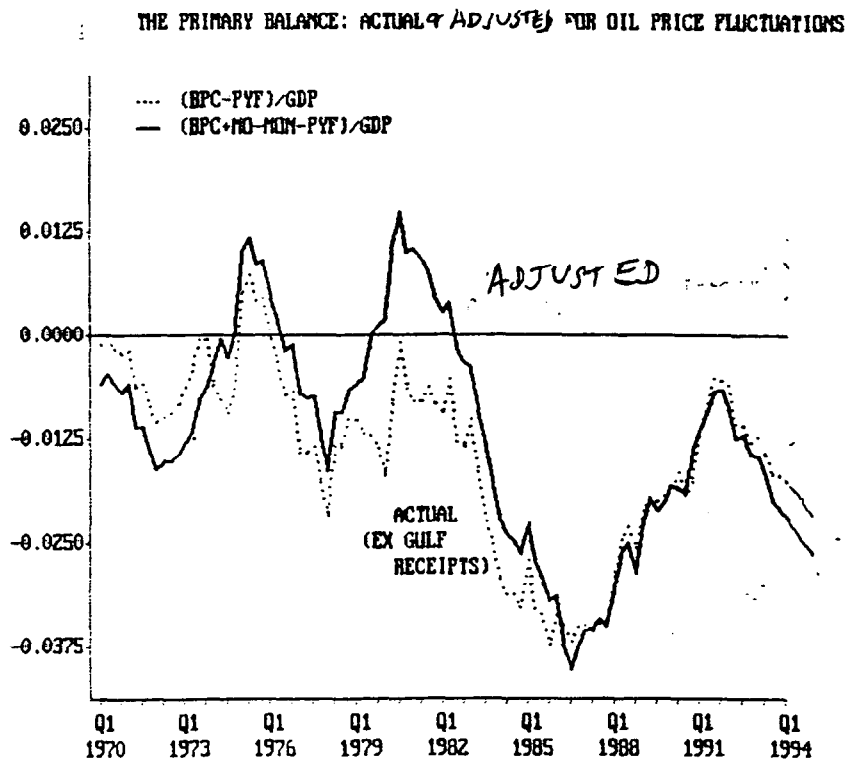
Chart 2 shows that two thirds of the deterioration in the current balance was the result of a fall in the "primary" balance of payments, a term used to describe the current balance excluding the net flow of interest and profits from abroad - "factor income" in the jargon of the NIPA<sup>3</sup>. The distinction is useful because factor income in any period is predetermined by asset and liability stocks accumulated in earlier periods, together with their rates of return.

The trend in the primary balance since the early eighties would have been even worse were it not for the way oil prices moved. In the mid seventies and early eighties there were increases in the price of oil which at the worst moment (in 1980) made the primary

<sup>3</sup> The primary balance is slightly more in deficit than the balance of trade in goods and services, differing only in that it includes unilateral transfers abroad - mainly personal remittances and foreign aid.

balance about 3% of GDP worse than it would otherwise have been. Since then, the real price of oil has fallen by about 75%. Chart 3 shows the primary balance as it was and as it would have been, ceteris paribus, had the real price of oil been constant throughout.

CHART 3



Fluctuations in the primary balance about its deteriorating trend have mainly been the result of two factors.

1) The US business cycle has not been synchronised with that of her trading partners. There have been three periods since the early seventies when US production rose relatively fast (1975-8, 1980-85 and 1991-94) and three relatively slow periods (1972-75, 1978-82 and 1988-91). As Charts 2 and 3 show, the balance deteriorated relatively fast during the periods of rapid expansion (as imports rose fast relative to exports). The balance improved when the US economy was relatively weak.

2) The (trade weighted) dollar rate of exchange performed an

extraordinary roller coaster, rising 64% between 1980 and 1985, then falling all the way back. The effect of these fluctuations has not been in accordance with the story commonly told in textbooks that import prices and the terms of trade (the ratio of export to import prices) move roughly one for one with the exchange rate. In the event, neither import prices nor the terms of trade changed on anything like that scale.

Percent change	80-85	85-90
Dollar cost of foreign exchange	- 61.0	+ 62.2
Imports of goods & services deflator	- 9.4	+ 21.1
Ditto excluding oil	- 0.7	+ 21.7
Terms of trade	- 14.1	+ 23.7
Ditto excluding oil	- 4.1	+ 12.9

SOURCE: CITIBASE. The chain weighted index of import prices - a better measure of import prices than the national income deflator - does not seem to exist prior to 1982. However, its movement since 1982 has not been so different from the deflator used in the table above as to change the broad picture

The figures show that import prices and the terms of trade only changed by one fifth, or less, as much as the appreciation and subsequent devaluation of the dollar. Exporters the world over shade their selling prices to keep or increase their foothold in the US, while the prices of many commodities (for instance oil) are not merely dollar denominated but (to a significant extent) dollar determined. Indeed the US is such a price maker that the cost of devaluation (whether measured in terms of inflationary repercussions or of real income loss through the terms of trade effect) looks relatively small - certainly much smaller than in many other countries - suggesting that the inflationary dangers of devaluation are habitually over-estimated.

Yet import prices did respond in some degree to the fluctuations in

the dollar, and the fact that export prices measured in dollars did not change much implies that export prices measured in foreign currency - a more relevant factor for the determination of export volumes - changed a great deal; they rose sharply when the dollar appreciated in 1980-85 and then fell back sharply in 1985-90. Foreign trade is quite responsive to changes in relative prices, and it is clear that the fluctuations in the dollar did indeed have a significant effect on the primary balance, making it worse in the first half of the eighties and then improving it again. For what it is worth, my estimate is that the rise and fall in the dollar caused about half<sup>4</sup>, or perhaps a little more, of the deterioration of the primary balance between 1980 and 1985 and also of the subsequent improvement between 1985 and 1990<sup>5</sup>.

#### THE FALL IN FACTOR INCOME FROM ABROAD

If two thirds of the deterioration in the current balance during the last twenty years can be explained by changes in the primary

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<sup>4</sup> Martin Feldstein (1993) states that the move of the US current account into deficit in the first half of the eighties and the subsequent recovery was all, or nearly all, the consequence of the rise and subsequent fall in the dollar. But this is a conclusion that can only be reached after careful statistical analysis. Is Feldstein doing more than exercise his intuition? The US economy expanded relatively fast in the first half of the eighties when the deficit was expanding and that it was going into recession in the subsequent period when the deficit was contracting. It seems unquestionable, in view of the US appetite for imports, that the US business cycle had something to do with the fluctuating current account deficit. It would be interesting to know how Feldstein explains the recent deterioration in the current account (at least 2% of GDP since 1992) bringing about a deficit within sight of the mid-eighties trough, at a time when the dollar has been falling.

<sup>5</sup> This conclusion is not mere guesswork; it is derived from a model which uses estimated responses of relative prices to changes in the exchange rate and of trade volumes to relative prices and growth rates. The actual trade balance was then compared with what the model predicted on the assumption that there had been no change in the exchange rate.

balance, there remains one third to be explained by the fact that, as US foreign wealth melted away (a direct consequence of the persistent deficits), the flow of factor income dwindled from 1% of GDP in the early seventies to nothing at the end of 1993.

CHART 4

## NET FOREIGN ASSETS AS A PERCENT OF GDP

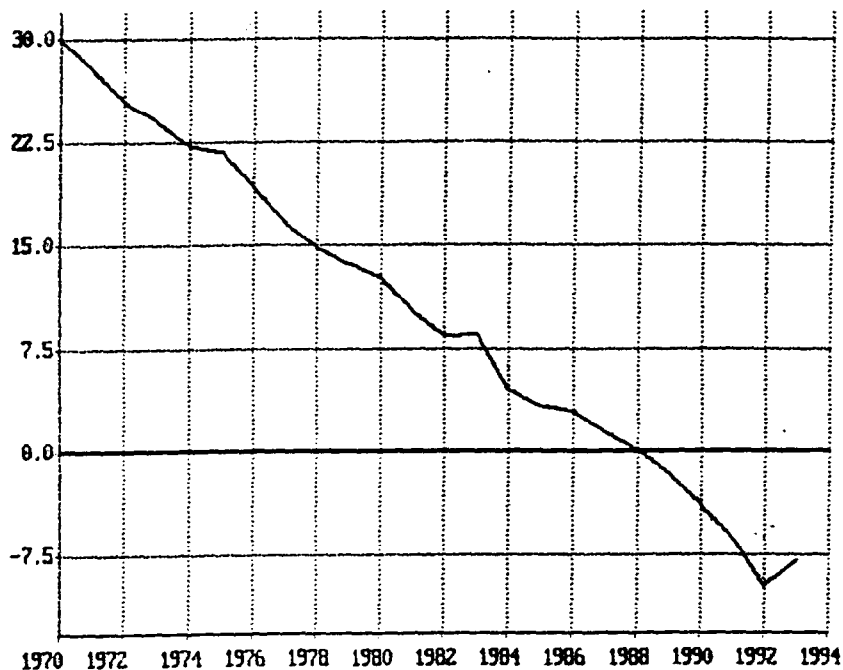


Chart 4 shows how US foreign wealth fell from 30% of GDP in 1970 to minus 8% at the end of 1993. The fall in the net stock of wealth did not equal the current account deficit on a year to year basis because of exchange rate and stock exchange fluctuations which changed the value of assets and liabilities. However, the fall in net wealth was roughly equal to the sum of the balance of payments deficits taking the period as a whole and this gives some broad confirmation that the figures are coherent. The slight improvement in 1993 was caused by a favourable movement in foreign relative to domestic stock prices which raised the value of US owned assets abroad relative to foreign owned assets in the US.

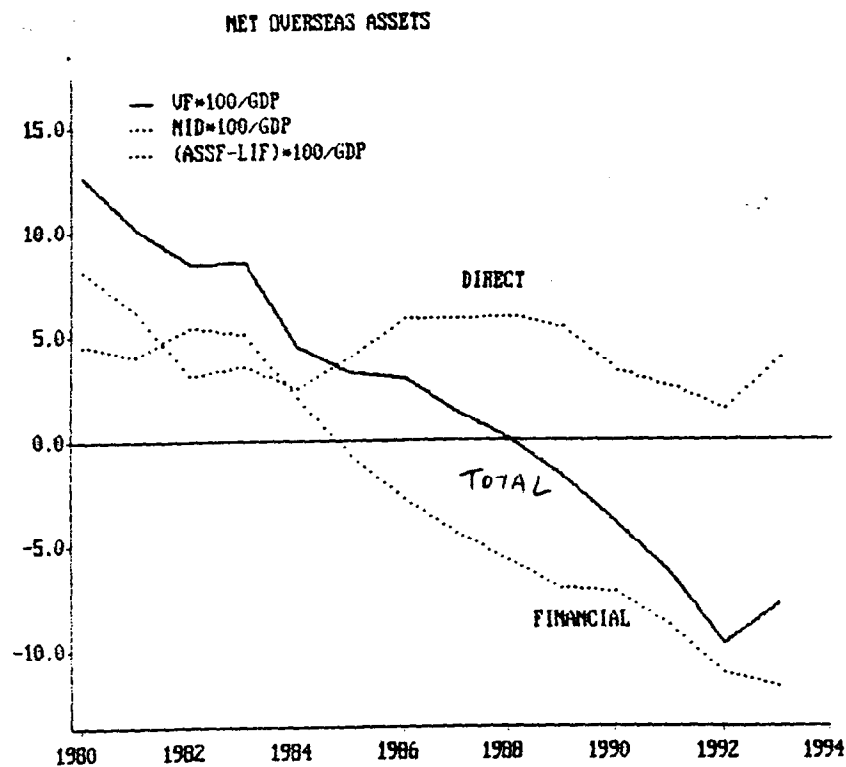
At first sight there is a paradox because, as Chart 4 shows, the net stock of overseas assets turned negative in 1988, yet the net



flow of factor income, shown in Chart 2, remained positive during the five subsequent years. Perhaps it is for this reason that so little importance has so far been paid to the US's growing indebtedness. It was only in 1994 that net factor income actually became negative, the outflow rising to [.25]% of GDP in the third quarter.

The paradox is easily resolved if factor income flows are disaggregated and set alongside the asset and liability stocks which generated them. It turns out that one substantial block of foreign owned assets - direct investments by foreigners in the US - has hardly been earning any return at all.

CHART 5



It would be convenient if the primary deficit could always be financed by foreigners making wretched direct investments in the US which earn next to nothing! But this is, in reality, out of the question. For one thing, as Chart 5 illustrates, the increase in the US's net foreign indebtedness has largely taken the form, not of inward direct investment, but of increasing financial

liabilities. And this is exactly what is to be expected given that the deficit is the consequence of the US's voracious appetite for imports rather than the harmless counterpart of foreigners finding worthy investment opportunities in the US. For another thing, the very poor return on foreign direct investment may not last indefinitely. According to the analysis by David S. Laster and Robert N. McCauley in the December 1993 Quarterly Review of the Federal Reserve Bank of New York, the low return is mainly a consequence of these investments having been made relatively recently; it seems that a period of running in is necessary before reasonable levels of profitability can be established. Perhaps as foreign entrepreneurs get their sea legs profitability will rise to more normal levels, generating an increased outflow of significant size. [Preliminary figures for 1994 suggest that this may already have started.....

CHART 6

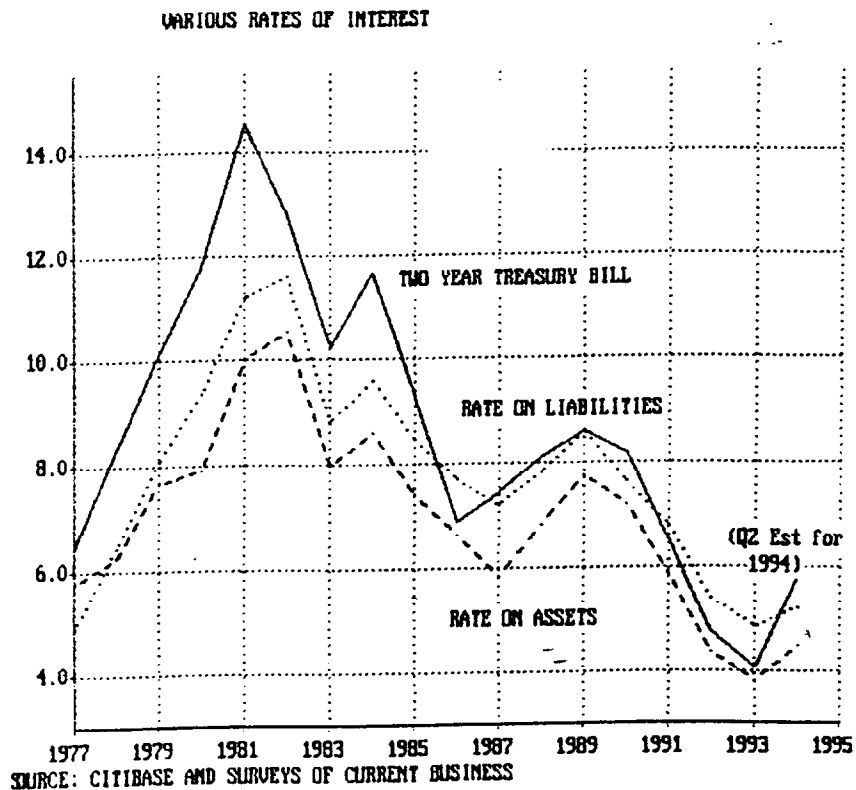


Chart 6 shows that, unlike the returns on direct investment, the returns to financial assets and liabilities - bonds etc. - have

quite closely tracked the movement of interest rates. The coherence of interest rates with the movements of factor income generated by financial assets will prove very useful when it comes to making conditional predictions.

#### THE RELATIONSHIP BETWEEN THE EXTERNAL AND INTERNAL DEFICITS

CHART 7

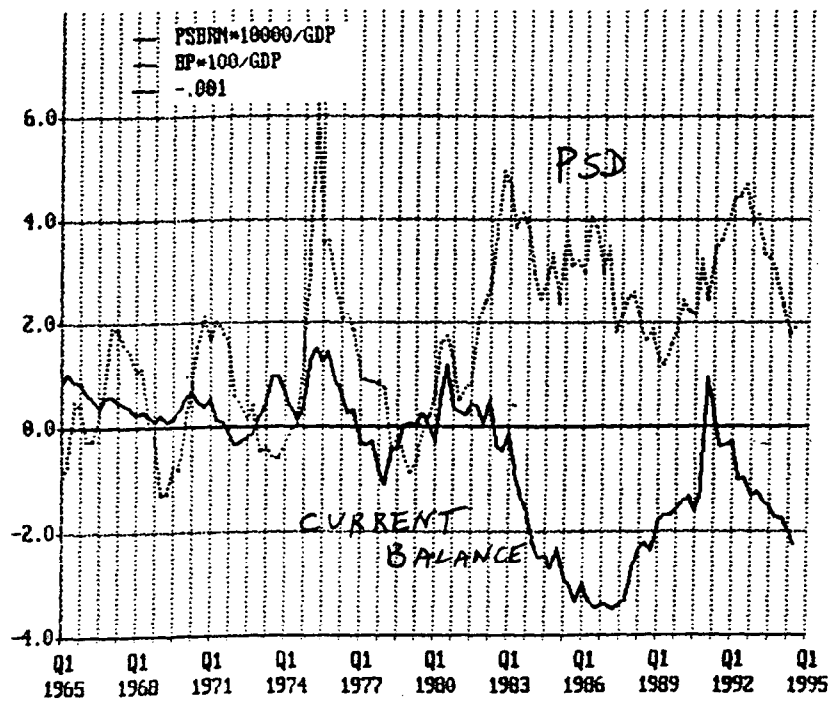


Chart 7 shows the history of the current balance of payments and the public sector<sup>6</sup> deficit (PSD), each expressed as a percentage of GDP. There may have been a moment, at the end of the eighties, when the two deficits looked a little like "twins", but from the perspective of 1994 this impression is largely dissipated. The PSD rose rapidly in the mid 70s, with no counterpart deterioration in

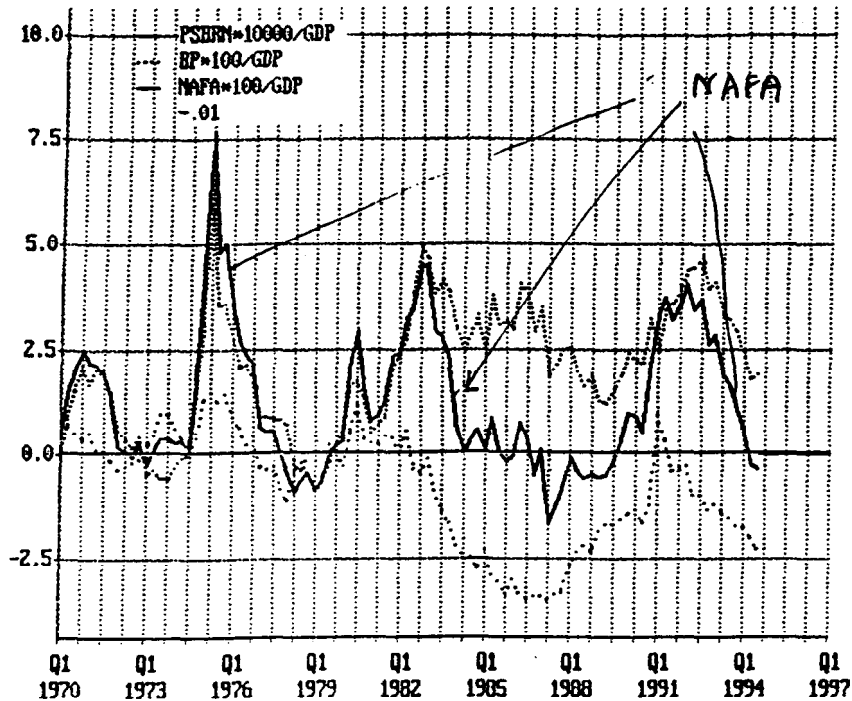
<sup>6</sup>We use the public sector deficit rather than the Federal deficit since for the purpose of economic analysis it is a matter of indifference whether any excess of spending over tax and other receipts derives from the activities of the Federal Government or of State and Local Government. During the last four years the two deficits have only differed by some .25% of GDP, so the matter has little practical importance.

the balance of payments, and the same thing happened again in the early eighties. And a big improvement in the external balance in the second half of the eighties occurred without any lasting improvement in the PSD. Any abiding sense of the deficits being twins is pretty well destroyed by the experience of the nineties, when the PSD improved but the balance of payments deteriorated sharply.

Now the difference between the PSD and the current account deficit is related, by accounting identity, to the aggregate spending behaviour of the private sector relative to its income. Total national income is identically equal to total private expenditure plus government expenditure plus any surplus of exports and income received from abroad less imports. Subtracting transfers (mainly taxes and interest payments) from both sides of the equation, we have that private disposable income (GNP less taxes and transfers) less total private expenditure (consumption plus investment) is always exactly equal to the PSD (government expenditure less transfers) less the balance of payments deficit. The gap between total disposable income and expenditure also measures the net acquisition of financial assets by the private sector (NAFA).

As the NAFA is identically equal to the PSD less the balance of payments deficit, the two deficits would be identical twins if, and only if, the NAFA were always zero; they would look quite like twins if NAFA were nearly constant as a proportion of GDP.

CHART 8

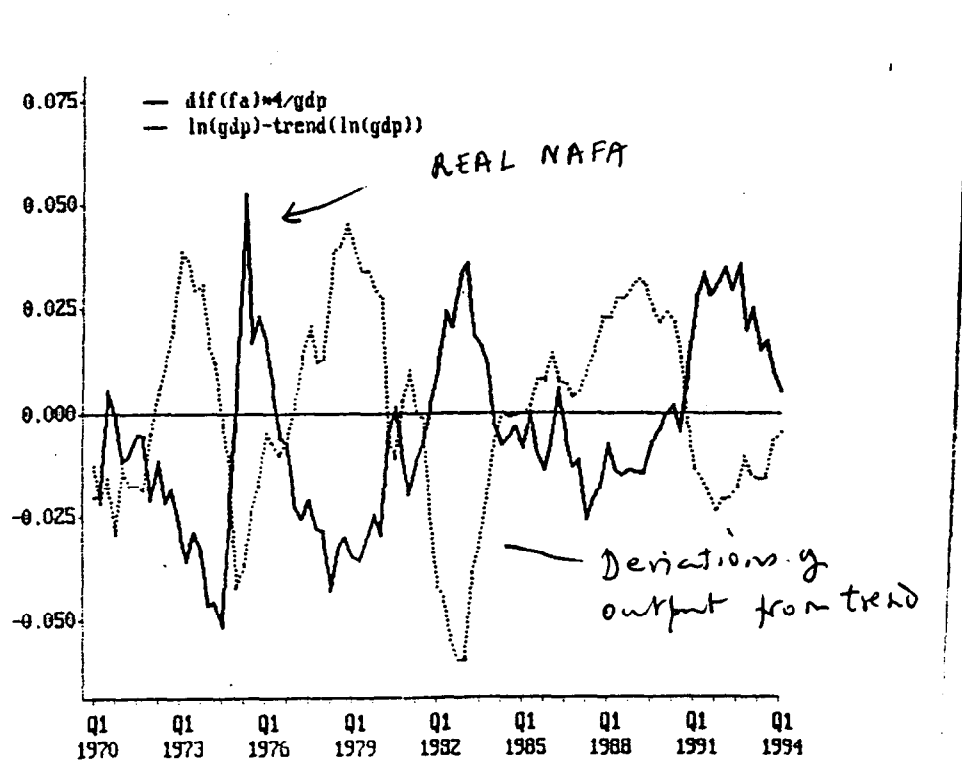


In Chart 8, the NAFA has been added to the current account balance and the PSD shown in the previous table, and it is immediately clear that this flow has been far from constant as a proportion of GDP. It exceeded 7.5% of GDP in 1975, became negative in the late seventies, rose to 5% in 1982, fell below zero for three years in the late eighties, rose to 4% in 1990 and has subsequently fallen again to about zero. But the wide range of fluctuation does not mean there is no pattern. For instance, NAFA as a share of GDP has, apparently, no long run trend, its range of fluctuation is limited and, on average, it has been positive. These properties of the NAFA lead, by themselves, to the important conclusion that the public sector deficit will normally, and on average, be at least as large as the balance of payments deficit.

But we can do much better than that! To understand the pattern, it is first useful to convert NAFA to "real terms" using standard

inflation accounting methods<sup>7</sup>. Chart 9 below plots "real" NAFA against a simple measure of the business cycle - the ratio of GDP to a fitted trend. An extremely clear pattern now emerges; NAFA, the surplus of total private income over expenditure, has very consistently fluctuated in a counter-cyclical way.

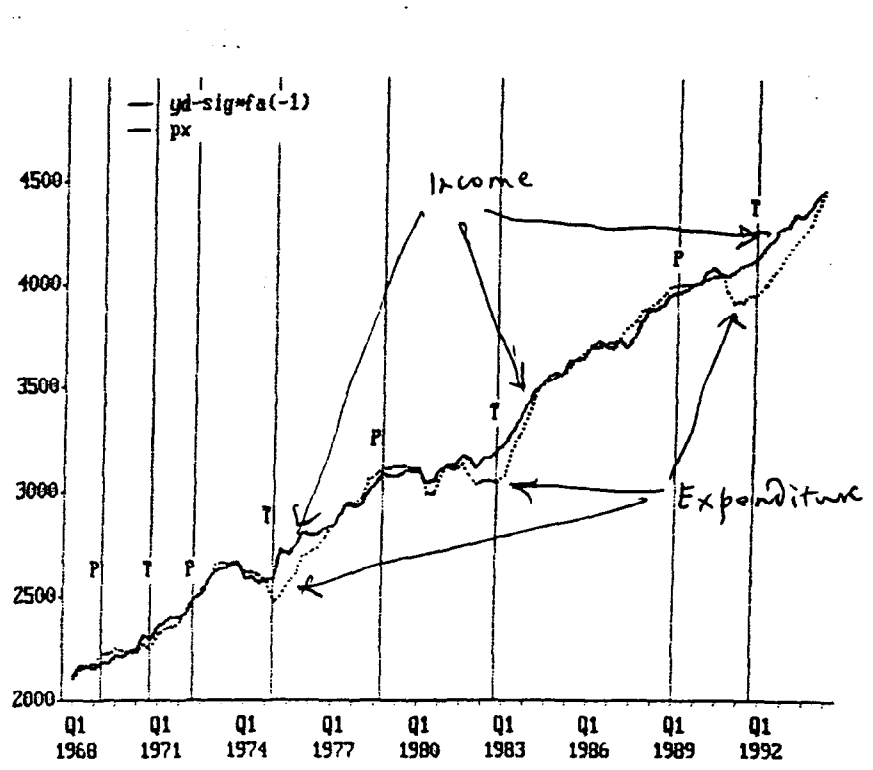
CHART 9



The same data may alternatively be presented as in Chart 10 below, which shows real disposable income and total real private expenditure between 1970 and 1994, the vertical lines marking the peaks and troughs of each business cycle. Private expenditure, as one might expect, falls relative to income during the peak to trough periods and rises again during the trough to peak periods, partly because of the pattern of the investment cycle.

<sup>7</sup> "Real" NAFA is not, of course, equal to NAFA divided by a price index; it is NAFA divided by a price index less the "inflation tax" times the opening real stock of financial assets. The adjustment to real terms makes a great deal of difference in periods of high inflation such as 1975 and 1982.

CHART 10



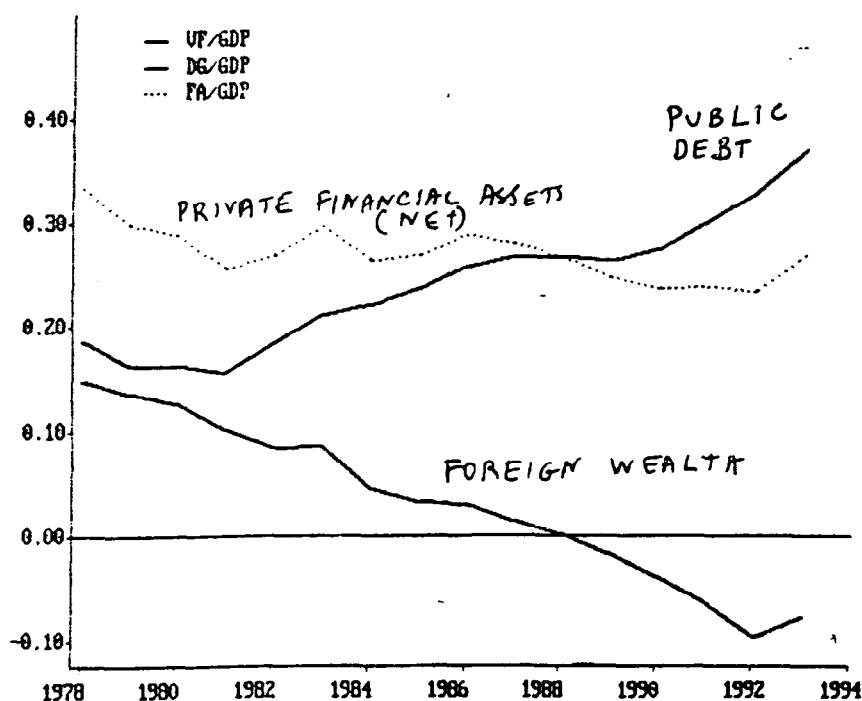
In the author's view, there are good theoretical and empirical grounds for postulating a stable relationship between real private expenditure, disposable income and the real stock of financial assets<sup>8</sup>. However for the purpose of this brief, a relatively weak

<sup>8</sup>[Perhaps there will be an appendix containing an up to date US version of this, the "New Cambridge" equation, first published using UK data nearly twenty years ago, for instance in Fetherston and Godley (1978). The original formulation was wrong, not on the grounds generally put forward at that time but because, in common most (all?) other applied economists, we did not then understand inflation accounting. Alan Blinder (1978) who was critical of the New Cambridge approach, nevertheless commented "To the credit of the New Cambridge group...the one feature of the model that Fetherston and Godley clearly label as absolutely essential to New Cambridge [the one which it was our predominant concern to deploy!] is also the one feature that should elicit the greatest support on this side of the Atlantic: the unusual specification of aggregate private expenditure. I rather doubt that the sum of consumption and investment spending can be very well explained by the sum of disposable income and retained earnings, and its lagged value, in the US. But if it can be, American Keynesians will have to re-

claim will be enough to establish a presumption of great importance. The claim is that, in the absence of cyclical fluctuations, it is reasonable to expect that real NAFA, the private sector's surplus of real income over real expenditure, would be a some small, positive and fairly stable proportion of GDP. Put round the other way, if there is a long run trend for the balance of payments to deteriorate there will also be a long run trend for PSD to deteriorate as well.

The historical relationship between the budget and balance of payments deficits is so distorted by cyclical disturbances that a better idea of the underlying position is obtained by inspecting stocks of assets and liabilities instead of confining attention to the flows describing changes in stocks.

CHART 11



examine the prevailing models of consumer and investor behaviour. An empirical study of this question in the US would be most welcome , and would really decide whether there is anything in New Cambridge that we in America should import.]



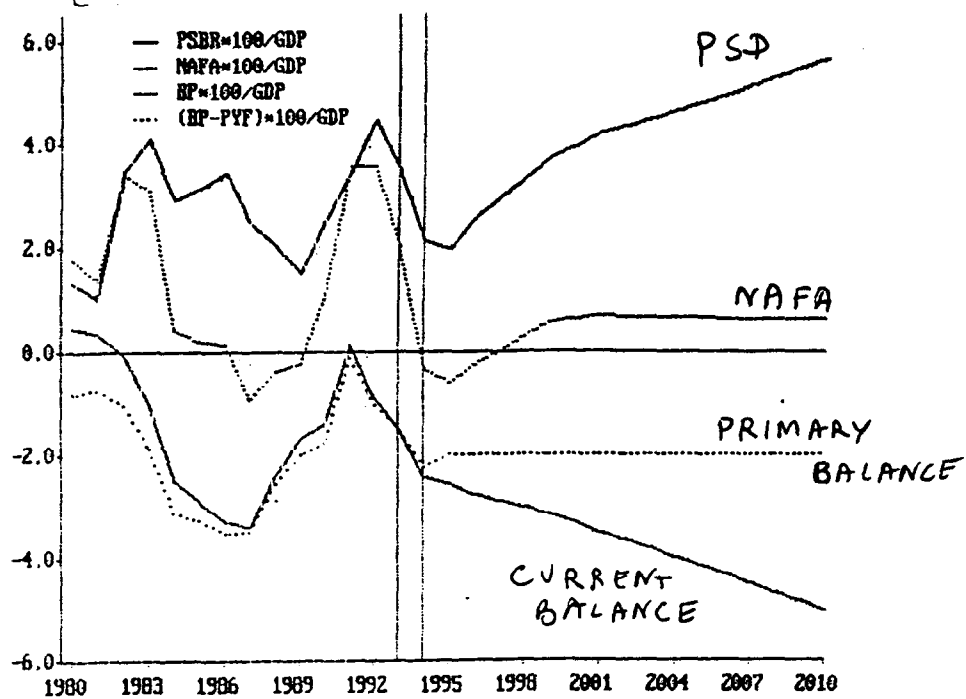
As levels of asset and liability stocks are made up from increments over long periods of time they are relatively insensitive to short term cyclical influences and we should expect to see the trend deterioration in the balance of payments generating an increase in public sector debt which does match the rise in foreign debt. That a process of this kind has been taking place is shown in Chart 11, which also shows how the net stock of financial assets has indeed been a fairly stable proportion of GDP, at least during the last few years. People should perhaps have been discussing twin debts rather than twin deficits.

#### THE MEDIUM TERM PREDICAMENT

The following section presents some conditional projections, using a range of assumptions about the primary balance, real interest rates, real growth and inflation. These are in each case combined with the assumption, (a neutral assumption since the whole exercise abstracts from cyclical fluctuations) that the NAFA of the private sector settles down at 0.6% of GDP. This makes it possible to draw in the public sector deficit implied by the other components of the projection since this is, by definition, equal to the current account deficit plus the private surplus. The reader is warned that the projections which follow are nothing more than the arithmetical consequences of the assumptions made and therefore that they have a strictly ex ante status. This point is emphasised since all of them describe situations which, it is very sincerely hoped, could never really happen.

For Projection 1, illustrated in Chart 12, the assumptions made are as follows. The primary balance share improves slightly compared with its end 1994 level and remains constant at 2% of GDP thereafter; the growth rate of GDP is 2.5% per annum throughout; the real rate of interest is 4.25%; and the inflation rate is 3.25%. The key assumptions in this projection are

CHART 12



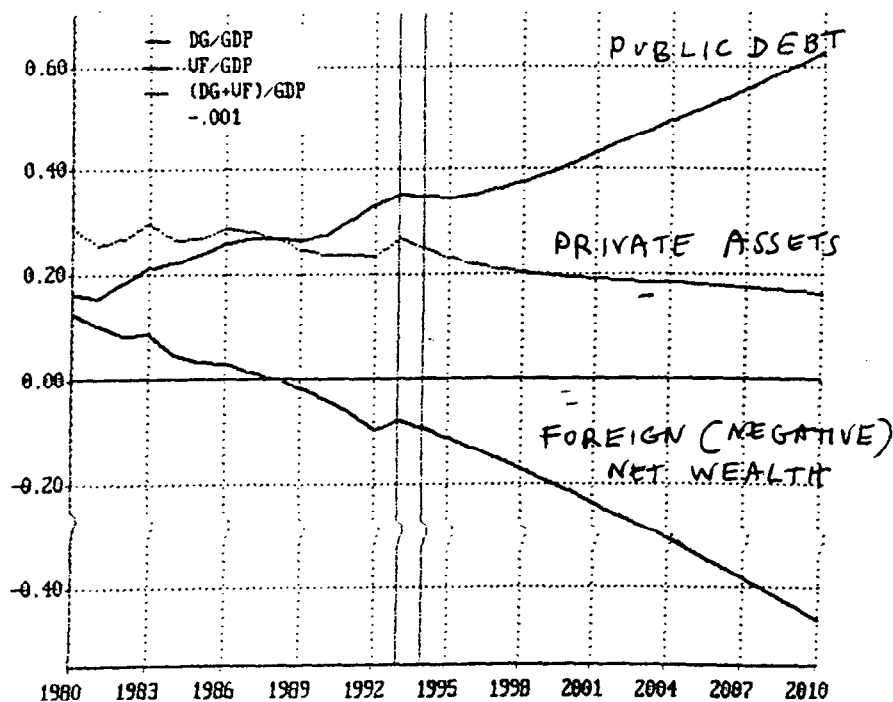
believed to be on the optimistic side, since it is assumed that the trend deterioration in the primary balance comes to an abrupt halt in 1995 and is even reversed a little compared with end 1994; also the real rate of interest is assumed to be lower than at the time of writing (January 1995, when the relevant real rate was about 4.75%).

Some of the main features of the projection are that outflows of factor income build up rapidly from the end of 1994, so that the current account deficit reaches 3% of GDP 1998, 4% in 2004 and 5% in 2010. The foreign debt to GDP ratio, which was 8% at the end of 1993, rises to 19% in 1999, 30% in 2004 and 46% in 2010. The general government deficit, which is expected to come out at about 2% in 1994, rises to 3% in 1997, 4% in 2000 and 5% in 2006.

While the projected government deficit comes out as the inevitable, logical, implication of the other balances (the foreign deficit plus NAFA), its rise obviously has an economic rationale which must

be understood if the whole story is to carry plausibility. A situation is being described in which the current account deficit is rising rapidly while the growth of output is maintained at a steady 2.5% - something quite close to the normal growth of capacity. Yet the growing external deficit is bleeding the circular income flow on an ever increasing scale, so output can only be sustained if transfusions are applied in the form of comparably large, and increasing, net inflows from the government sector. This does not imply that the government would, in any ordinary sense, be pursuing a profligate fiscal policy since most of the increased deficit would be taking the form of interest payments as government debt accumulated; on plausible assumptions the interest payments would be so large that a very severely restrictive fiscal policy would be necessary, with rising taxes or severely curtailed public expenditure. This last point is brought out quite dramatically if the implications of Table 12, which shows flow variables, are drawn for stock variables as shown in Table 13. The counterpart of negative net stocks of foreign wealth worth 46% of GDP is that public sector debt reaches about 60% of GDP.

CHART 13



Before commenting on this projection, we show two others, in the first of which the assumptions are a little more favourable, in the second a little less.

CHART 14

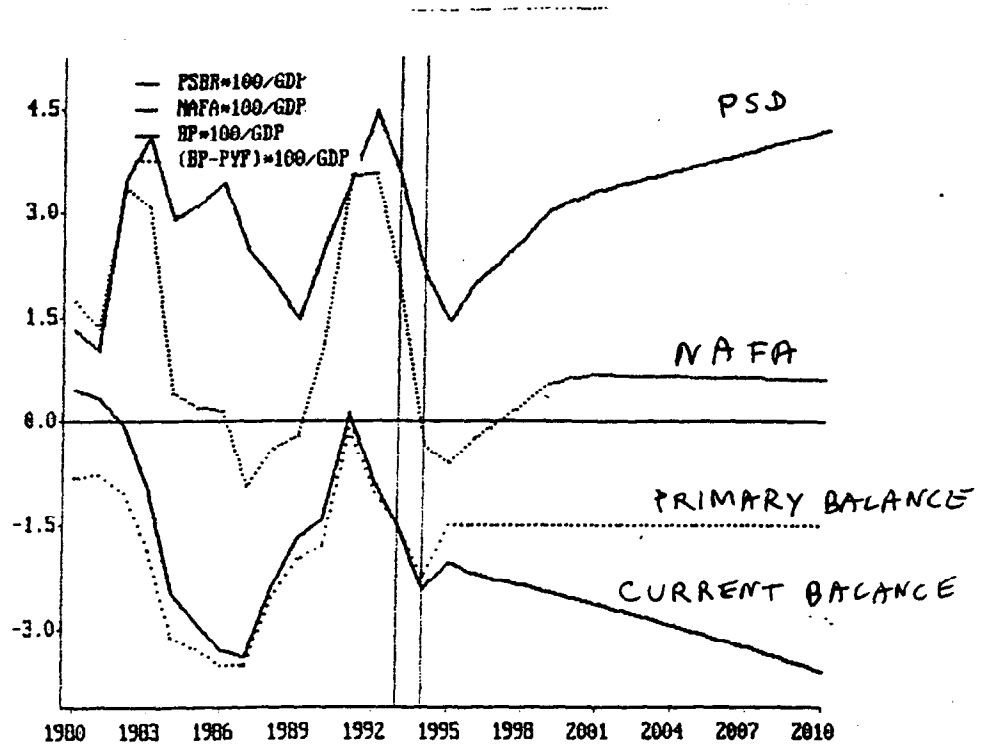
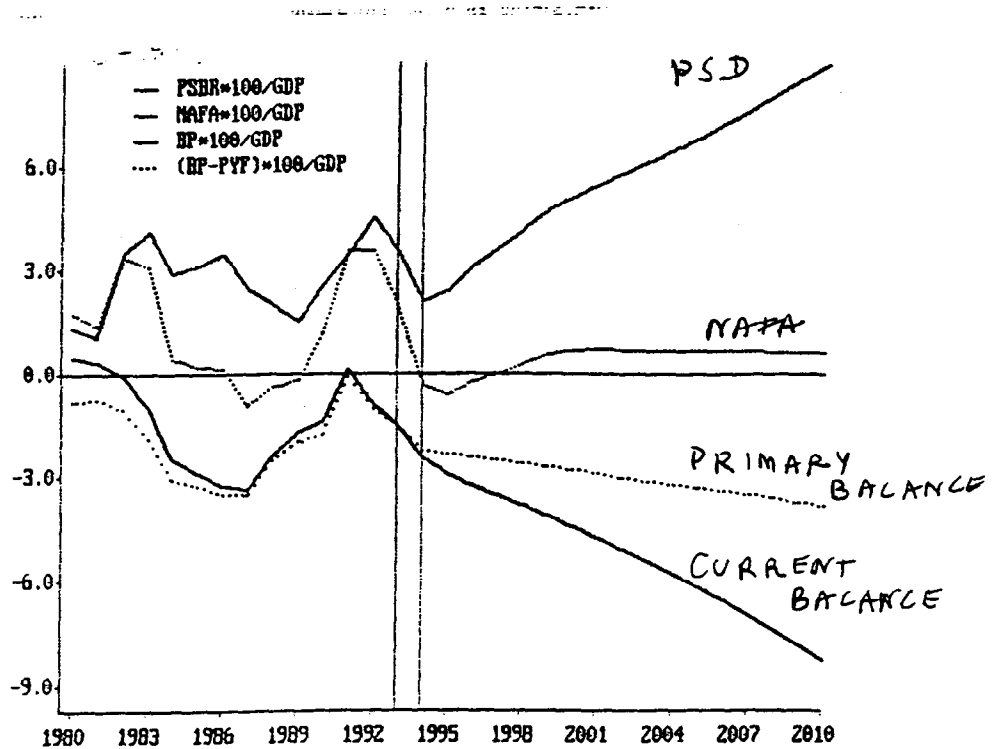


Chart 14 assumes that the real rate of interest is 4% - well below its present rate and only 1.5% more than the rate of growth of output, while the primary balance improves quite perceptibly, to 1.5% from 1995 onwards. Using these assumptions, the current account deficit is considerably lower than in projection 1, reaching 3% in 2004 and 3.6% in 2010. The government deficit also rises much more slowly, but quite inexorably, reaching 3.5% by 2004. The foreign debt rises to 20% in 2001, 25% in 2004 and 35% in 2010.

CHART 15



Finally, Chart 15 assumes that the real interest rate is 4.6% (roughly its present level), while the primary balance deteriorates by one tenth of a percentage point every year.

The outcome depicted in the chart, though based on assumptions which, taken individually, are not extreme, is something of a horror story. The current account deficit rises to 4% in 1999, 5% in 2003 and 8.3% in 2010. The government deficit rises to 5% in 2000, 6.8% in 2005 and 9% in 2010. The foreign debt rises to 20% in 1998, 29% in 2001, 52% in 2007 and 66% in 2010.

#### ASSESSMENT

All the projections described in the previous section and illustrated in Charts 12 through 15 follow, essentially, from assumptions about the future of the primary balance and real rates of interest; once these assumptions have been made, everything else follows automatically and inevitably. In the author's view, there

is nothing exaggerated about these assumptions. Even the worst case shown (in Chart 15) uses assumptions which, taken individually, are well within the bounds of possibility. The course of the primary balance in this projection looks very like a continuation of the adverse trend which has been in evidence for the last fifteen years or so. And there must be a serious possibility, should the US current account deficit and the net debt really get as bad as that shown in the chart, that the real rate of interest would rise to levels well above those assumed.

Yet each of these simulations, even the "best" one shown in Chart 12, describe situations which are, in the technical sense unstable, that is to say they imply an accumulation of debt which is on an explosive path. The point is really an obvious one which needs no formal expression in algebra or elaborate language. A country which is in debt cannot, in the end, pay interest on its debts except by having the value of its exports exceed the value of its imports. The only alternative to paying interest by selling goods and services is to pay interest by borrowing on a scale which grows without limit. Even foreign aid provided by the US would have to be borrowed from other countries. As a debtor nation, the US must eventually attain a surplus in its primary balance. Anyone who disputes this must reckon with the reductio ad absurdum question - is there no limit whatever to the permissible extent of indebtedness? Could it be 100% of GDP? Or 500%? The only legitimate questions are when, to what extent and by what means a primary surplus has to be achieved.

It is sometimes supposed that a strategic problem of the kind adumbrated will be solved automatically and relatively painlessly if market forces are allowed free play. I know of no theory which

explains just how the automatic mechanism is supposed to work<sup>9</sup>, but the view is decisively confuted by the fact that many countries have, in the past, run up international debts which did indeed threaten to generate explosive interest payments and which did, as a consequence, force those countries into painful retrenchment programmes.

Some economists, including in particular Robert Eisner, dismiss the matter on the grounds that the real burden of foreign indebtedness is so small, at least until it reaches levels enormously higher than it is today, that the whole thing can be ignored. The core of the Eisner argument is that it will always be a sufficient target to keep any particular level of debt constant as a proportion of GDP, and that to meet this target it is only necessary to run a primary surplus equal to about 2%<sup>10</sup> of the debt. In other words, if the debt were as high as 30% of GDP, the primary surplus necessary to maintain stability would only be 0.6% of GDP; and even if the debt got to 100% of GDP, the primary surplus needed would only be 2% of GDP; and these numbers look small.

However, in the contention of this brief, the notion that it will always be a sufficient target of policy to stabilise the debt to GDP ratio, however high the debt ratio may be, is defective because it ignores the fact that, even after "stability" has been achieved there remains a balance of payments deficit which needs to be financed; and the larger the debt, the larger will be this current

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<sup>9</sup>There is a textbook story which defines an "equilibrium" as a situation in which enough capital is flowing into the country to balance any current account deficit. But this perversely ignores the fact that so long as there is a current account deficit stocks of liabilities must be in process of depletion - a situation which it is a travesty to call "equilibrium".

<sup>10</sup>Precisely, the percentage must be the excess of the real interest rate over the real growth rate. Most people seem to accept, as a "stylised fact", that 2% is a reasonable estimate of this excess under normal circumstances.

account deficit. For suppose there is a debt equal to 100% of GDP and that this is assumed, according to the Eisner definition of stability, to be rising at the same rate as GDP; suppose furthermore that nominal GDP is rising at, say 6% per annum, (2.5% real growth plus 3.5% inflation). Then in this "stable" situation, while there is, by assumption, a primary surplus equal to 2% of GDP, there is also a current account deficit equal to 6% of GDP<sup>11</sup> - the amount of the increase in the debt - and this is a sum which must be borrowed year in, year out. Parenthetically, it is to be noted in confirmation of this that countries which have actually reached the crisis point (Ireland and Denmark both provide good examples) have not been content merely to achieve stability in their debt ratio. They have gone a long way further and run enormous primary deficits which have had the effect of bringing their debt ratios down.

Perhaps it is the magnitude of the current account deficit which must be assumed to persist in any "stable" situation which will give us a criterion for judging what the maximum debt ratio can be. Surely a stable debt ratio of 100%, implying a current account deficit (i.e. financing requirement) equal to 6% of GDP looks very dangerously large. Even a debt ratio stable at 50%, implying a primary surplus equal to 1% of GDP and a current account deficit equal to 3% of GDP, looks too large to be safe.

It is very tentatively suggested that the highest debt ratio on which strategic policy can prudently be based might be in the

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<sup>11</sup> It is possible to get into an argument at this point about nominal vs real interest rates. According to one system of concepts, it is an exaggeration to say that the balance of payments deficit in the example given would be 6% it ignores the fact that inflation is eroding the stock of debt. While the point is formally correct it doesn't help with the financing problem which would have to be faced on the ground. If you have to borrow \$425 billion (6% of GDP), potential lenders will not be impressed by the fact that "in real terms" your stock of debt is only going up by half that amount.



region of 25%, in which case the primary surplus would have to be about 0.5 of GDP and the current account deficit about 1.5%. There is, indeed, reason to suppose that this may be too sloppy a target. For

a) With net foreign debts about \$1.75 trillion (i.e 25% of today's GDP) and a foreign borrowing requirement running at about \$100 billion per annum, the US would be vulnerable, much more vulnerable than at present, to bouts of speculation against the dollar. Interest rates would most likely have to be raised to levels which would prove damaging to investment and growth. And the US would have undergone a serious and permanent loss of power in the international scene.

b) For reasons set out earlier in this brief, if there were foreign indebtedness equal to 25% of GDP, the government sector would have become indebted to at least the same extent, with ruinous consequences for the public sector's finances. The Government would have to find some 3% of GDP (\$200 billion at today's values) simply to meet its interest obligations.

Yet the dubiously "sustainable" situation just described, with the foreign debt ratio held constant at 25%, is one in which the primary balance is assumed to have been transformed from its present minus 2.5% of GDP to about plus 0.5%<sup>12</sup>.

We are reaching a the conclusion that it is not a moment too soon to bring the improvement of the primary balance to the forefront among the objectives of economic policy. The following two graphs present aspects of a barely acceptable scenario, which yet assumes that the primary balance improves steadily from 1996 onwards, reaching the small surplus adequate to stabilise the growth of debt in the year 2002.

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<sup>12</sup>That is the real rate of interest (4.5%?) less the growth rate (2.5%?) times the assumed debt ratio (25%)

CHART 16

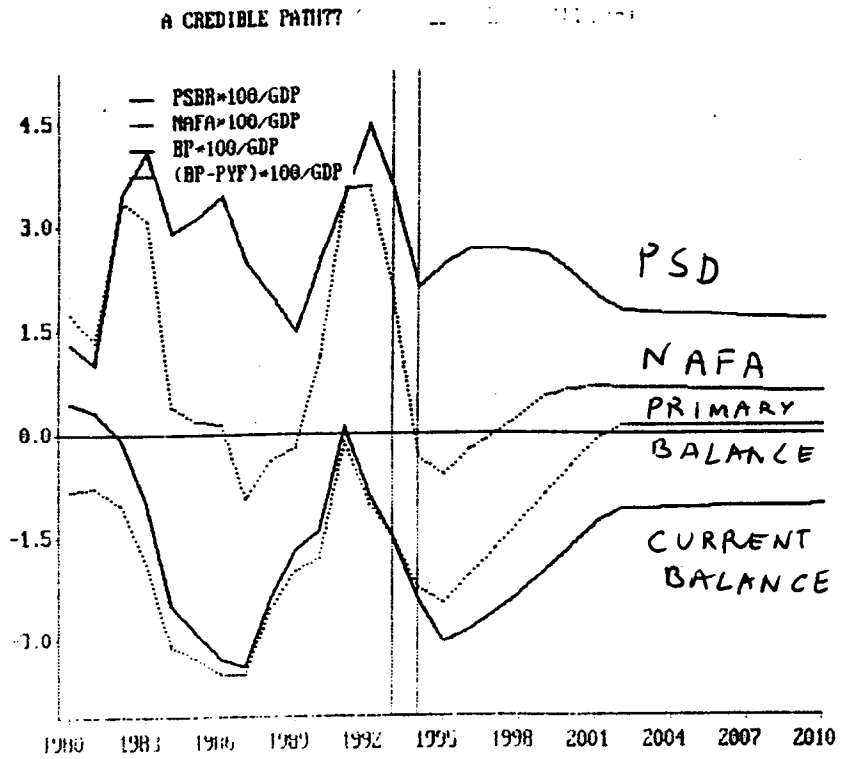
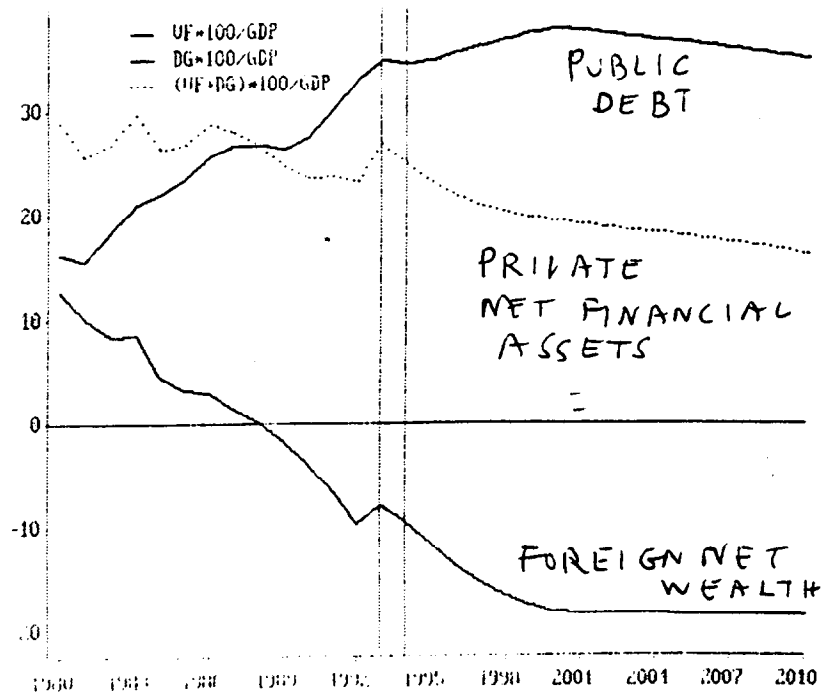


Chart 17 shows the implications of the simulation shown in Chart 16 for asset and liability stocks.

CHART 17



The improvement depicted in the previous two charts is, it is suggested, something like the minimum acceptable. The foreign debt stabilises at about 20% of GDP, so the running balance of payments deficit is under 1.5% at the end, which is probably small enough to present no financing problem. And the public sector debt stabilises at about 35% which is not too far from its present level.

To show how important it is to get an early and rapid improvement we add a final simulation which shows what happens if the primary balance only gets into surplus in the year 2008.

CHART 18

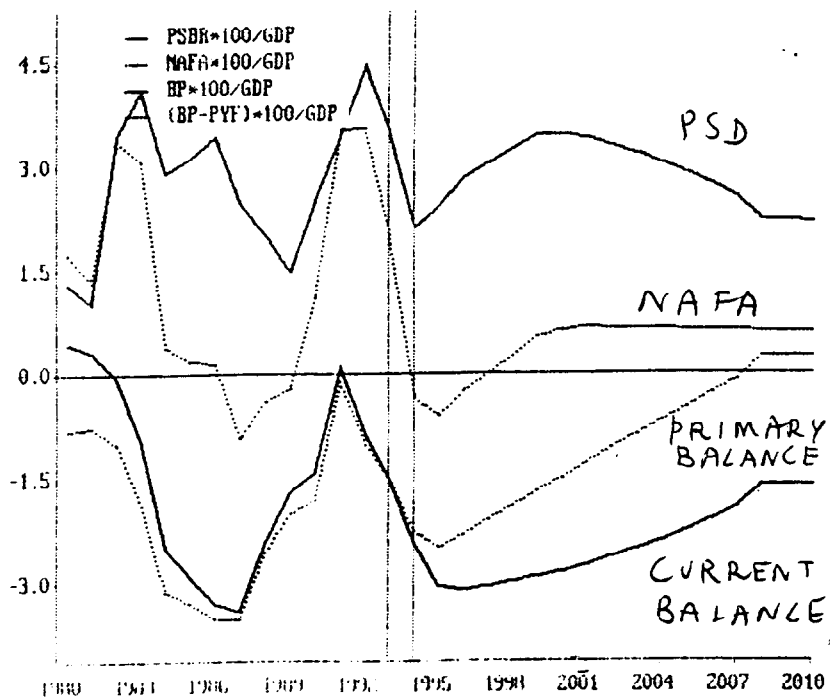
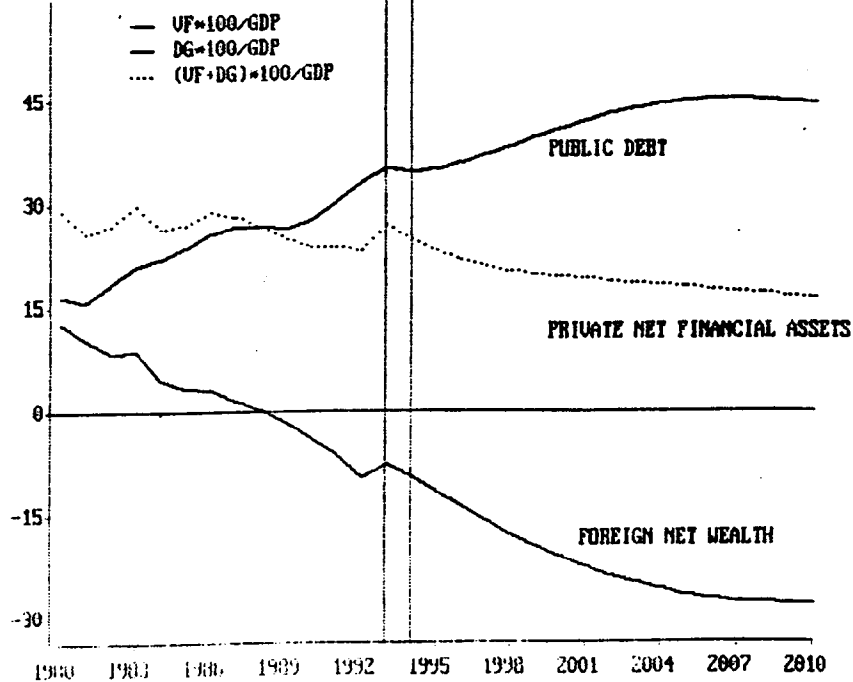


CHART 19



The story depicted in this simulation is almost certainly unacceptable. Ignoring the possibility that en route to the "stable" situation, the strategy is blown off course by a series of exchange crises, we end up with an abiding current account deficit nearly 2% of GDP and a public debt ratio of about 45%. In this world, interest payments on the public sector debt would be well in excess of the public deficit itself, implying an extremely tough fiscal stance in the form of onerous combination of tax increases and cuts in public expenditure.

IS THE ADJUSTMENT "LARGE"?

It has occasionally been suggested that the scale of the change in the primary balance which (by common consent) will at some stage be necessary, is so small that it will not be either particularly difficult or particularly painful to achieve it. After all, we are only talking about the transfer of 2.5-3.5% of GDP "into" the balance of trade.

Such a suggestion is probably inappropriate because, with exports and imports of goods and services only about 11% of GDP, it is necessary, in order to improve the primary balance by, say, 3% of GDP to get exports to rise very substantially - by nearly 30% - relative to imports; alternatively it would do if imports fell by the same proportion relative to exports. Moreover, the sectors of the US economy producing potentially tradeable goods and services has now shrunk to probably not more than 30% of GDP. So what looks like a small transfer of resources when expressed as a proportion of GDP, looks much bigger as a proportion of tradeables. 2.5%-3.5% of GDP turns into 8-12% of the tradeable sector.

#### AND HOW WOULD THE TRANSFER BE MADE?

There are alternative routes to a solution to the problems described in this brief which would have drastically different consequences for the US economy and for the rest of the world as well.

On the one hand there is the deflationary solution associated with tax increases and expenditure cuts. This is the solution habitually adopted by debtor countries, often under the pressure from the IMF. One way of getting imports to fall the necessary (say) 20% relative to exports is to make the GDP fall by a sufficiently large amount. Most researchers have found that there is a high income elasticity of demand for imports in the US; a common finding is that imports respond proportionately around 1.5 times as much as changes in output. According to such arithmetic, a fall of 12.5% in GDP (implying a rise of 6% in unemployment?) might be sufficient to reduce imports by the required amount. The trouble with this story, however, is that a fall of 20% in US imports would give such a disinflationary shock to rest of the world that we that US exports would be adversely affected. So the reduction in US output would have to be even greater to get the needed improvement in the primary balance. Of course the US budget problem, if it is a

problem, would be solved, but only at the cost of severe depression both here and throughout the world.

The alternative to solving the problem by deflation is to solve it by expenditure switching policies which would by hook or by crook increase the value of US exports or reduce the import propensity of the US economy. If expenditure switching could successfully be brought about on a large enough scale, all the main problems adumbrated in this brief could be solved without any deflationary impulse being imparted to the US economy. The net effect of adding to exports while reducing the propensity to import would be to simultaneously add to domestic output, reduce the primary balance of payments and also (through its benign effect on the net tax yield) reduce the public sector deficit. Expenditure switching may, indeed, be the only way the public sector deficit can be reduced, or even eliminated, without any increases in tax rates or cuts in public expenditure.

ENVOI

Why is there such a quietist attitude in the US to the problems described in this brief? Perhaps with interest payments on the foreign debt only recently turned negative, and the financing of the current account deficit (so far) not a serious problem, there is simply not enough unpleasantness at hand to generate significant concern, particularly when there is so much else to worry about<sup>13</sup>.

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<sup>13</sup>This plus a national habit of thinking as though the US economy is closed - a habit sponsored, seemingly, by the way macroeconomics is habitually taught. For instance, two of the leading graduate textbooks (Sargent and Blanchard & Fischer) deal only with the closed economy. So far as undergraduate texts go, it is unusual to find stock variables other than the stock of "money" mentioned at all - so these texts cannot be very helpful with the problem of indebtedness.