

WORLD GOLD COUNCIL

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America's Deficit, the Dollar & Gold

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America's Deficit, the Dollar & Gold

by Tim Congdon

1. Introduction: Can the dollar remain the world's dominant currency?

With the USA accounting for over a quarter of global output, American economic leadership is an established feature of the international financial scene at the start of the 21st century. The dollar is accepted as the world's main currency, and it dominates both governments' reserve holdings and trading on the foreign exchanges. But in one key respect the dollar looks vulnerable. In the last few years the USA has run a vast current account deficit on its balance of payments. The deficit has been the largest in money terms, and the highest as a share of gross domestic product, in American history; it has also dwarfed the largest deficits incurred by other nations, including nations that have been a byword for financial mismanagement and bankruptcy. Further, as shown by Chapter 2 in this study, the deficit is not new. The story of the USA's external payments since 1945 is one of a remorseless slide, from a massive trade surplus and a commanding status as the world's biggest creditor in the late 1940s, to the erosion of the surplus and the emergence of a trade deficit in the 1950s, 1960s and 1970s, to an increase in overseas obligations which reduced the surplus on investment income in the 1980s, and finally to the unprecedented trade deficits and the position of the world's biggest debtor today.

A vital question raised by the USA's external debt and deficits is, "can the dollar remain the world's dominant currency, and in particular the favourite asset in government holdings of foreign exchange reserves, while the USA continues to build up external liabilities at the recent rate?" Further, if the dollar's pre-eminence is weakened by the USA's external imbalances, "what other reserve asset can compete with it?" These questions have become more relevant with the introduction of the single European currency, the euro. Several leading European statesmen have said – openly and in forthright terms – that one aim of the euro is to supplant the dollar as the world's principal currency.

The dollar's prospects are also fundamental to the future monetary role of gold. Gold has diminished sharply as a share of international reserves since the 1970s. Although many explanations could be provided for the reduced official demand for gold, undoubtedly important have been the decline in inflation and the restoration of respect for paper currencies. Under the guidance of two outstanding chairmen of the Federal Reserve, Paul Volcker and Alan Greenspan, American monetary policy has successfully lowered the USA's inflation rate and so, by example, played a central role in the reduction of inflation around the world. Are the USA's large external deficits a sign of a weakening of anti-inflationary resolve? Do they foreshadow a collapse in the dollar? And would a collapse in the dollar not only benefit the euro's international prestige, but also renew gold's monetary role?

These are the some of the questions which the present study tries to answer. The questions are not new. Indeed, an argument could be made that they have been inherent in the post-war international financial system. The USA has been expected to create easily traded financial instruments, including large and ever-growing dollar balances, to meet the world's rising demand for liquidity. But to create such balances it has to incur external deficits and the deficits undermine the dollar's credibility. This tension – between the need for deficits to provide the world with claims on the USA and the risk that such deficits makes the claims unattractive to hold – was brilliantly described in Triffin's *Gold and the Dollar Crisis*. (1) The book emphasised “the Triffin paradox”, that the USA could not indefinitely expand the world's dollar holdings and maintain the convertibility of the dollars into gold as the fixed price of \$35 an ounce. Published in 1960, Triffin's book anticipated the suspension of the dollar's convertibility into gold (in August 1971) by over a decade.

Of course, the situation today is very different from that in the late 1950s and early 1960s when Triffin was writing, but a link remains between the quality of the USA's management of its currency and the appeal of non-dollar assets, including gold, to international investors. As this study will demonstrate, the scale of the USA's external deficits in recent years has undoubtedly given new relevance to long-standing questions about the dollar's international role.

Note

(1) Robert Triffin *Gold and the Dollar Crisis* (New Haven: Yale University Press, 1960).

2. Trends in the USA's external payments

Trends from 1945 to the suspension of the dollar's convertibility into gold in 1971

In 1945 and the immediate post-war years the USA enjoyed a huge economic advantage over the rest of the industrial world. Japan and most European countries had suffered significant damage to their productive capacity from direct military action, quite apart from the strain of having had to commit so much of their resources to re-armament and the war effort over several years. The USA accounted for over a third of world output, making it the dominant market for raw materials of all kinds as well as the only supplier of many key products. Not surprisingly, it built up substantial financial claims on other countries, in the expectation that eventual economic recovery would enable them easily to service and perhaps to repay their debts. American companies also invested heavily around the world, exploiting an undoubted technological and managerial superiority over smaller, less efficient foreign competitors.

In 1946 the USA's exports of goods were more than double its imports; in 1947 its exports of goods exceeded its imports by over two-and-a-half times. On trade in services also it ran an immense surplus. The overall surplus on the current account of its balance of payments was \$4.9bn in 1946 and \$9.0bn in 1947, both figures larger than the gross domestic product of Italy at that time. (See Table 2.1 on the USA's balance of payments in 1946.) Yet such was the scale of the USA's economy that 1947's current account surplus was less than 4% of its own GDP. Because the USA had generally recorded a surplus on the current account of its balance of payments in the first half of the 20th century, its overseas assets dwarfed those of other countries. The United Kingdom – which had been similarly placed only 40 years earlier – had been forced to sell the bulk of its overseas assets in order to cover heavy external deficits in the two world wars. Negotiations between the USA and the UK about the institutional framework of post-war international relations took it for granted that the USA was the world's dominant creditor nation. In the resulting Bretton Woods system the dollar and the pound sterling were the two reserve currencies, but in reality the dollar was pre-eminent.

Some rebalancing of the world economy over the next two or three decades was to be expected, as Europe and Japan returned to pre-war levels of output. The scale of the American lead in the late 1940s was exceptional and could not last. In the event economic growth in Europe and Japan in the 25 years from 1950 ran at an unprecedented rate, removing much of the initial gap between them and the USA in output per head and living standards. The post-war liberalizations of trade and payments encouraged nations to specialize in areas of comparative advantage, which reduced the diversity of their production as they concentrated on products to be sold in foreign markets. The reduction in tariff barriers by the USA was an important part of the wider process and stimulated rapid growth in its imports.

In fact, the USA's imports of goods grew far more than its exports – with only occasional cyclical interruptions – throughout the period of Europe's post-war economic

Table 2.1: The structure of the USA's balance of payments in 1946

		\$m.
Exports	11,764	
Imports	5,067	
- Net merchandise balance		+6,697
Service transactions:		
Net military	-424	
Net travel and transport	733	
Other services, net	310	
- Net services balance		+619
Investment income:		
Receipts on US assets abroad	772	
Payments on foreign assets in U.S.	-212	
- Net investment income		+560
Unilateral transfers, net		-2,991
Balance on current account		+4,885
In 1946 the USA's gross domestic product was \$209.2b. So the trade surplus was 3.2% of GDP and the current account surplus 2.3% of GDP.		
(In 1947 the trade surplus was \$10,124m and the current account surplus \$8,992m. With GDP at \$232.2b., the trade surplus was 4.4% of GDP and the current account surplus 3.9% of GDP.)		
Source: <i>Economic Report of the President</i> , various issues		

renaissance. In the 25 years from 1946 imports rose over nine times from \$5.1bn to \$45.6bn, whereas exports increased less than four times from \$11.8bn to \$43.3bn. As a result, the in 1971 USA recorded its first deficit on trade in goods since the nineteenth century. Nevertheless, trade in services was roughly in balance and a substantial surplus had been achieved in investment income. This surplus on investment income was the USA's return on the assets it had accumulated in the first three-quarters of the 20th century. American investments around the world, and the profits on those investments, benefited hugely from post-war prosperity. In 1946 the USA's surplus on investment income was under \$0.6bn; in 1971 it was \$7.3bn. The favourable trend in investment income was a valuable offset to the slide into deficit on trade in goods.

Table 2.2 shows the structure of the USA's balance of payments in 1971. The pattern was far less imposing than in 1946, but the underlying strength of the USA's external position seemed not to be in doubt. As in the three previous post-war years when the USA had run a current account deficit (1950, 1953 and 1959), the imbalance could be blamed on "unilateral transfers", principally spending around the world by the US Government on military assistance to allies, aid, payments to the multilateral agencies and so on. Excluding such transfers, the USA continued to have a meaningful current account surplus.

Although the USA remained a big creditor nation in 1971, the erosion of the current account position since the early post-war years undermined international confidence in the dollar. The USA's money supply growth had also been rather high in the late 1960s, so that the world economy arguably had "too many dollars." (1) As the world's central banks

wanted to increase the proportion of their assets in gold, they asked the US Government to exchange their surplus dollars into the precious metal. The consequent drain on the USA's gold reserves forced it to suspend the convertibility of the dollar into gold, removing a foundation stone of the Bretton Woods structure. Whatever the exact causes of the dollar's fragility in the late 1960s and early 1970s, the episode demonstrated the relevance of trends in the USA's external payments to international perceptions of the dollar, both against other currencies and against the ultimate reserve asset, gold.

Table 2.2 : The structure of the USA's balance of payments in 1971

		Sm.
Exports	43,319	
Imports	45,579	
- Net merchandise balance	-2,260	
Service transactions:		
Net military	653	
Net travel and transport	-2,038	
Other services, net	2,330	
- Net services balance		+945
Investment income:		
Receipts on US assets abroad	12,707	
Payments on foreign assets in U.S.	-5,435	
- Net investment income		+7,272
Unilateral transfers, net		-7,402
Balance on current account		-1,433
In 1971 the USA's GDP was \$1,097.2b. So the trade deficit was 0.2% of GDP and the current account deficit was 0.1% of GDP.		
Source: <i>Economic Report of the President</i> , various issues		

Trends from 1971 to 1991, the last year of current account surplus

The elimination of the USA's vast payments surplus between the immediate post-war period and the early 1970s could be interpreted as mostly due to the restoration of peacetime normality. The USA continued to record current account surpluses for most of the 1970s. Because of substantial domestic oil production, it was less badly hit by the two oil prices shocks, of 1973/4 and 1979/80, than other industrial countries. With the value of its international assets still rising strongly, the surplus on investment income became even more impressive. By 1980 receipts of international investment income of \$72.6bn exceeded payments of \$42.5bn by just over \$30bn.

However, the accumulation of new foreign assets now relied on the re-investment of profits, dividends and interest from old investments. In the 1970s, as in the 1950s and 1960s, the USA's imports grew more rapidly than its exports. In the early 1970s trade in goods and services was sometimes in surplus and sometimes in deficit; in the late 1970s it was in deficit year after year. The current account remained in surplus only because of the buoyancy of international investment income. The apparent entrenchment of a trade

deficit was accompanied by unconvincing monetary policies, with the USA's Federal Reserve overshadowed by the German Bundesbank and the Swiss National Bank in the commitment to sound money. The dollar lost half its value against the Swiss franc between 1973 and 1979, and also fell heavily against the German mark and the Japanese yen. High inflation rates around the world hit confidence in paper money. The dollar price of gold – still officially \$35 an ounce in early 1971 – averaged \$614.50 in 1980 and briefly touched \$850 in January 1980. Gold was favoured as an investment vehicle because in several industrial countries the rate of inflation exceeded the interest rate on deposits, implying a negative real return on money balances.

Mr. Paul Volcker was appointed Chairman of the Federal Reserve Board in 1979, with the task of curbing American inflation. In the year to December 1979 the USA's consumer price index rose by 13.3%. Volcker recognized that a sharp rise in interest rates was needed, both to restore a real return to savers and confidence in paper money, and to dampen excessive growth of credit and money. The Federal Reserve limited the quantity of reserves supplied to the US banking industry, letting the critical Fed funds rate find a market-clearing level. In 1980 and 1981 it bounced around from month to month, but was typically in the teens. US banks' prime rates – which had to give a profit margin above the Fed funds rate – reached 20% in March 1980, exceeded 20% in December 1980 and stayed at over 20% for most of 1981.

These very high real interest rates came as a shock to borrowers. As intended, they did lead to lower money supply growth and inflation in 1981 and 1982; they were also vital in lowering medium-term inflation expectations and restoring confidence in American economic policy-making. However, in the process of making the dollar once more attractive to hold compared with gold and other assets, they also caused it to appreciate sharply on the foreign exchanges. The dollar was strong until early 1985, when its exchange rate against the German mark, the Swiss franc and the Japanese yen had recovered to values similar to those in the early 1970s.

Unfortunately, inflation in the USA had typically been higher than in Germany and Japan. The dollar's appreciation therefore made it heavily over-valued and handicapped American exporters in world markets. The USA's imports of goods jumped from \$249.8bn in 1980 to \$368.4bn in 1986, whereas its exports of goods in 1986 of \$223.3bn were slightly lower than 1980's \$224.3bn. The surplus on services also narrowed a little in these years. The deficit on trade in goods and services combined – which had been only \$19.4bn in 1980 – climbed to \$139.8bn in 1986 and \$152.8bn in 1987.

The surplus on investment income remained the bright spot in the USA's international accounts in the early 1980s. The surplus on investment income moved ahead further from \$30.1bn in 1980 to a peak of \$36.3bn in 1983. But the sequence of current account deficits implied that foreigners were accumulating financial claims on the USA to a greater extent than the citizens of the USA were accumulating claims on the rest of the world. According to estimates prepared by the Department of Commerce, in 1985 the value of assets held by foreigners in the USA exceeded the value of assets held by US citizens abroad. The USA's "net international investment position" had become negative for the first time since the First World War.

The USA nevertheless continued to enjoy a surplus on investment income. The combination of the surplus on international investment income and the shortfall on international assets may seem anomalous, but can be partly explained by the importance of foreigners' holdings of low-yielding equities in their claims on the USA. At any rate, the surplus on investment income began to fall. It went down from \$36.3bn in 1983 to \$14.2bn in 1987. With the deficit on trade and services now well established and the surplus on investment income under threat, alarming projections could be made of an ever-growing current account deficit.

In these circumstances key American policy-makers – notably the Treasury Secretary, Baker – worried about the eventual damage to their country's international financial standing if the current account deficit were not corrected. At a meeting in the Plaza Hotel, New York, in September 1985 the major industrial countries agreed on concerted policies to lower the dollar's exchange rate. As the dollar had in fact already peaked in early 1985, the Plaza agreement accelerated its downward trend. In 1985 its average value against the German mark was 2.942 and against the yen 238.47; in 1988 the average value against the mark was 1.757 and against the yen 128.17.

The policy-induced collapse in the dollar did have the desired effect on trade flows. Between 1986 and 1991 both the value and the volume of exports grew faster than those of imports. The impact on trade in services was particularly clear. For example, where as the balance on travel and transport receipts was almost \$10bn in the red in 1985, it was in surplus by over \$15bn in 1991. Meanwhile the drop in the dollar increased the dollar value of the USA's receipts from its international investments. The surplus on investment income doubled from \$14.2bn in 1987 to \$28.4bn in 1990. A further more adventitious boost came in 1991, when the USA asked its allies in the industrial world to contribute to the cost of the heavy defence expenditure incurred in the Gulf War. In that year the current account recorded a small surplus of \$4.3bn. The surplus followed nine consecutive years of deficit, in which the cumulative shortfall had totalled almost \$900bn.

Trends in the 1990s

The surplus in 1991 reflected and may have seemed to justify policy-makers' efforts to devalue the dollar since 1985, but it was also a by-product of cyclical fluctuations in the American economy. The dollar's big devaluation in 1986 and 1987 had aggravated domestic inflation pressures, taking the annual increase in the consumer price index up from 1.1% in December 1986 to over 4% during 1988 and 6.1% in December 1990. The Federal Reserve – now under the chairmanship of Mr. Alan Greenspan – tightened monetary policy with a sequence of interest rate increases, with Fed funds rates rising from 6.75% in late 1987 to almost 10% in the spring of 1989. In the usual cyclical manner the growth of demand and output slowed, and a recession was recorded in the fourth quarter of 1990 and the first quarter of 1991.

This recession – although mild – lowered the USA's appetite for imports and was an important influence on the favourable swing in the USA's external accounts. Growth resumed in late 1991 and 1992. The revival in demand was not particularly strong, but it

was sufficient to reverse the improvement in the external accounts. A current account deficit of over \$50bn re-emerged in 1992, and it increased to \$50.6bn in 1993 and \$85.3bn in 1994. Once again, the USA's imports were rising faster than its exports. In fact, the deficit on trade in goods widened relentlessly, year after year, in the 1990s. The deficit on trade in goods and services could not resist the adverse trend on trade in goods. It also rose steadily throughout the 1990s, apart from one year (1995) when a bout of dollar weakness gave the USA's industries a temporary competitive boost.

The cumulative deficit on trade in goods and services in the six years from 1992 to 1997 was over \$500bn and on the current account almost \$650bn. By the end of 1997 the USA's foreign assets were greatly exceeded by its foreign liabilities, with the Commerce Department estimating the gap to be roughly \$1,000bn (2). In 1998 payments of investment income on foreign-owned assets exceeded the USA's investment income receipts for the first time in the post-war period. The investment income deficit was minor compared with other elements in the USA's external accounts at only \$12.2bn, but the loss of the investment income surplus was another stage in the erosion of the USA's international creditor status. Less than 20 years earlier the investment income surplus had been equal to 1% of GDP.

Table 2.3: The structure of the USA's balance of payments in 1996

		\$m.
Exports	612,113	
Imports	803,113	
- Net merchandise balance		-191,000
Service transactions:		
Net military	5,385	
Net travel and transport	25,015	
Other services, net	58,757	
- Net services balance		+89,157
Investment income:		
Receipts on US assets abroad	225,846	
Payments on foreign assets in U.S.	204,859	
- Net investment income		+20,987
Unilateral transfers, net		-40,081
Balance on current account		-120,937
In 1996 the USA's gross domestic product was \$7,913.2b. The trade deficit was therefore 2.4% of GDP and the current account deficit was 1.5% of GDP.		
Source: <i>Economic Report of the President</i> , various issues		

Despite the clear adverse trends in international flows of both trade and investment income, the late 1990s was a period of great investor enthusiasm for American assets. This enthusiasm owed much to the success of American entrepreneurs in developing new computer, telephone and information technologies, which encouraged talk of a "New Paradigm" of endless prosperity. Heavy capital inflows into the USA reflected investor excitement about the New Paradigm and made it easy to finance the current account deficit. The spread of American investment banks and news media around the world reinforced the image of the USA as the dominant participant in the world economy.

American leadership was obvious, even obtrusive, in the summer of 1997. A severe financial crisis erupted in South-East Asia, following the failure of the Bank of Thailand to prevent a devaluation of the baht in July. Share prices fell heavily around the world, and for a few weeks in October and November the bond market was virtually closed as a source of corporate funding. Mr. Greenspan decided that the USA had to act as “importer of last resort” to the world economy. The Federal Reserve cut interest rates to boost demand in the USA. The deliberate intention was to stimulate purchases from the over-indebted countries of South-East Asia and Latin America, and so to overcome their balance-of-payments difficulties.

But the result was to widen yet further the USA's trade and current account deficits. Indeed, the slide into deficit in the late 1990s was far more rapid than at any other time in the post-war period. Using national accounts data in constant price terms (i.e., 1996 prices), in the second quarter of 1997 “net exports” – the excess of exports of goods and services over imports – were negative by 1.2% of GDP. Three years later they were negative by 4.5% of GDP. Even the slide into deficit in the early 1980s had not been so abrupt. In terms of actual numbers on a balance-of-payments basis, the deficit on trade in goods and services widened from \$24.2bn in the second quarter of 1997 to \$41.6bn in the second quarter of 1998, when the Asian crisis broke, and then quarter by quarter to \$86.2bn in the first quarter of 2000. The monthly trade deficits by mid-2000 were as large as the quarterly trade deficits only three years earlier. The wider trade deficit added to the current account deficit, while the sequence of large current account deficits increased foreign claims on the USA. Inevitably, the deficit on investment income also became larger. In the fourth quarter of 1999 and the first quarter of 2000 combined, the deficit on investment income was almost \$10bn, equivalent to \$20bn at an annual rate.

In spring 2000 the stock market – particularly the fashionable high-tech sectors which had benefited from the New Paradigm talk – began to fall. The USA's widening external deficit was one reason for disappointment about American economic performance, although it did not play a major role in the public debate. In late 2000 and early 2001 the slide in the stock market undermined consumer confidence and deterred companies from raising cash by new equity issuance. Business investment fell heavily, leading to a mini-recession in the middle of 2001.⁽³⁾ The fall in demand curbed imports and led to a narrowing of the trade gap, in the usual cyclical manner. The trade deficit, which had been \$99.7bn in the fourth quarter of 2000, was down to \$85.0bn in the fourth quarter of 2001. But the trade gap did not return to where it had been before the Asian crisis began in 1997 and remained extraordinarily large by any standards other than those of the late 1990s. As the US economy began to recover in early 2002, the trade figures deteriorated once more. The lowest monthly value of the trade deficit in 2001 had been in September, at \$19.4bn, but in February it was back to \$31.5bn, similar to the highest deficit numbers seen in 2000.

Summarizing trends in the USA's external payments since 1945

This narrative account of trends in the USA's external payments in the second half of the 20th century has identified a persistent erosion of the creditor position held by the USA

in the immediate post-war years. In the late 1940s the USA had a surplus on trade in goods, and a larger surplus on trade in goods and services. Further, because it had acquired substantial foreign assets in the first half of the 20th century, it had a surplus on international investment income. The overall surplus on the current account – the sum of the trade surplus and the surplus on investment income (only slightly qualified by a deficit on transfers which reflected the USA's great power role) – appeared structural in nature. It was self-reinforcing year by year because the assets bought with the surplus implied increased surpluses on the investment income account. Further, there was a powerful economic justification in the world's most technologically advanced nation spreading its expertise to other countries by investing in them and acquiring claims on their future output. In 1950 the USA's creditor status seemed impregnable.

Over the next 50 years everything changed. Between 1950 and the early 1970s imports grew faster than exports, with only occasional cyclical interruptions. 1973 was the last year that the USA had a surplus on trade in goods and services. The slide in this part of the international accounts was nevertheless largely offset by a healthy and growing surplus on investment income, and even in the early 1980s the current account was roughly in balance. A possible sustainable outcome would have been for the USA to stabilize both the trade deficit and the surplus on investment income as proportions of GDP. This would have been a logical situation for a mature industrial nation, able to live off foreign assets built up in its years of overwhelming technological supremacy.

Instead extraordinarily high interest rates were required to restore faith in the dollar as a sound currency, after the shock of double-digit peacetime inflation rates in the 1970s. The resulting dollar over-valuation hampered US exports, and the gap between exports and imports widened again. A deficit on the current account – as well as on trade in goods and services – became the norm. Despite the return to a more sensible dollar valuation in the late 1980s and a brief recession at the start of the 1990s, the USA was able to achieve only a few quarters of surplus in 1991. Thereafter a current account deficit was recorded year after year.

Whereas in 1947 the USA's exports of goods were more than two-and-a-half times its imports, in 1999 its imports of goods exceeded its exports by over 50%; whereas in the late 1940s the USA's surplus on goods and services was typically 3% - 5% of GDP, in 1999 the deficit on goods and services was of almost the same size relative to American national output, at 2.9% of GDP. Inevitably the sequence of current account deficits caused the USA's foreign liabilities to overtake its assets. By 1998 its payments of international investment income also exceeded its receipts; by early 2000 the deficit on investment income was running at an annual rate not dissimilar to the typical surpluses recorded on this item in the previous 20 years.

To summarize, over 50 years a surplus on trade in goods had become a deficit, a surplus on trade in goods and services had become a deficit, a surplus on investment income had become a deficit, a persistent current account surplus had become a persistent deficit, and a substantial excess of foreign assets had been replaced by a substantial excess of foreign liabilities. Whereas in the middle years of the 20th century the USA was the world's dominant creditor nation, by the century's end it was the biggest debtor nation.

Moreover, no signs of a stabilization of the payments position had yet emerged. At mid-2000 the USA's current account deficit exceeded 4% of GDP and was by far the highest figure on record. Although the deficit fell slightly in the mini-recession of 2001, the fall was insignificant compared with the increase in the deficit in the previous decade. At the start of the 21st century it is realistic to forecast that the USA will soon register a current account deficit of almost 5% of GDP.

Table 2.4: The structure of the USA's balance of payments in 2001

		Sm.
Exports	718,762	
Imports	1,145,927	
- Net merchandise balance		-427,165
Service transactions:		
Net military	-2,978	
Net travel and transport	-1,926	
Other services, net	73,779	
- Net services balance		+68,875
Investment income:		
Receipts on US assets abroad	283,771	
Payments on foreign assets in U.S.	269,389	
- Net investment income		+14,382
Unilateral transfers, net		-49,463
Balance on current account		-343,908
In 2001 the USA's gross domestic product was \$10,082.2b. The trade deficit was therefore 4.2% of GDP and the current account deficit was 3.4% of GDP.		
Source: <i>Economic Report of the President</i> , various issues		

Notes

(1) A key theoretical uncertainty is whether the exchange rate depends more on a nation's external payments position or on relative money supply growth. The phrase "too many dollars" could be justified either by a wide payments deficit or by rapid money supply growth. The point is taken up in Chapter 5.

(2) Note that the Department of Commerce's estimates of the USA's net international investment position change every year. For example, whereas it was originally thought that the USA became a net debtor in 1985, the latest assessment is that this occurred in 1986 or 1989. (The date depends on the valuation method adopted. See Harlan King, 'The international investment position of the United States at year-end 2000', pp. 7 – 15, July 2001 issue of *Survey of Current Business* [Washington: Department of Commerce].)

(3) The downturn of 2001 was not a full "recession," because GDP fell in only one quarter, not in two consecutive quarters.

3. How easily can the USA achieve sustainability in its external payments?

Trying to define “sustainability”

One of the big problems in discussing the USA's international payments position is that the word “sustainability” can take a variety of meanings. It is plain that the situation is unsustainable either when the current account deficit is rising year after year or when imports are constantly increasing at a faster rate than exports. But that does not finalise matters, as the USA's circumstances in the late 1990s were undoubtedly extreme. To say that the USA must eventually limit the ratio of the current account deficit to its gross domestic product, in order to restore external sustainability, is correct. But this statement does not spell out when and at what level of the deficit-to-GDP ratio the limit has to be imposed. More careful analysis is required to define the boundary between sustainability and unsustainability.

An essential starting-point is to emphasise that the existence of a current account deficit is not, in itself, a sign of unsustainability. It is not true that nations with payments imbalances will confront an inevitable Day of Judgement when the debts have to be repaid and the deficits must be replaced by surpluses. Indeed, some countries – such as Australia or New Zealand – have had current account deficits ever since they were established as definable national entities. Typically, foreigners own a large part of the capital stock of a country of this kind, which therefore has a significant deficit on investment income. The current account deficit represents foreign investment in the country and implies ever-increasing external claims on its future output. But its citizens are pleased because domestic expenditure exceeds domestic output and overseas investors are happy because they are receiving sizeable investment income. Part of this income they can consume and part of it they can re-invest. Viable examples can be proposed, in which external indebtedness reaches remarkably high levels and yet the situation is sustainable. In the extreme foreigners could own a nation's entire capital stock and receive all its investment income, and still the ratio of the capital stock (and hence the external debt) to output could be stable.⁽¹⁾

Because of these examples, stability in the ratio of external debt to output could be suggested as a more relaxed, but much better criterion of sustainability than the elimination of current account deficits. With this criterion accepted, most analyses of the dynamics of external debt distinguish between two parts of the deficit (i.e., the increase in debt). One part is attributable to payments of income, typically interest, on the debt, while the other is attributable to all other payments between the debtor nation and its creditors. The second element is usually termed “the primary balance.” The contrasting roles of debt interest and the primary balance in the evolution of debt become two actors in a mathematical drama of financial damnation or redemption.

The algebra of debt sustainability

With a stable debt-to-income ratio accepted as a criterion of sustainability, these analytical concepts are readily applied to the American external payments deficit. The balance on investment income corresponds to “debt interest” in naïve theoretical statements of debt dynamics, and the sum of the trade deficit and unilateral transfers to “the primary balance.” Two simple formulae can be derived for the ratio of the current account deficit to national output that would stabilize the debt/output ratio, and for the associated split of that deficit between investment income and the primary balance.

Let D represent a nation’s net external liabilities (or “debt”) and Y represent its output. Let the debt/output ratio be denoted by a . Then

$$D/Y = a, \text{ and}$$

$$D = a Y.$$

Let the change in debt be denoted by dD and the change in output by dY . Then the growth rate of debt is dD/D and the growth rate of output is dY/Y , denoted by g . If the ratio of debt to output is stable, then the growth rates of debt and output must be the same. So

$$dD/D = dY/Y.$$

Now, for the sake of analytical tractability, the change in debt dD may be taken as the same thing as the current account deficit and dD/Y is the ratio of the current account deficit to national output.(2) So

$$dD/Y \times Y/D = dY/Y.$$

Remembering that Y/D is the inverse of a , and multiplying both sides of this expression by a , the key result emerges that – when the ratio of net external liabilities to output is stable –

$$dD/Y = g \times a.$$

In words, the ratio of the current account deficit to national output that stabilizes the debt/output ratio is the debt/output ratio multiplied by the economy’s growth rate.

What of the split between “the primary balance” and “debt interest”? Assume that a uniform interest rate, denoted by r , is paid on net external liabilities (3). Then debt interest is rD and the primary balance is $(dD - rD)$. After a little manipulation, the expression for the primary balance becomes $(g - r) \times D$. So the two components of the current account deficit – the two actors in the drama of debt sustainability - can be put together as follows,

$$dD = rD + (g - r)D.$$

Further, the ratio of the current account deficit to national income that stabilizes the debt/output ratio is

$$dD/Y = r.a + (g - r).a.$$

In words, the sustainable ratio of the current account deficit to national income is the sum of, first, the rate of interest on external debt multiplied by the ratio of debt to output and, secondly, the growth rate minus the rate of interest, also multiplied by the ratio of debt to output.

One crucial point quickly emerges. Perhaps surprisingly, it is *not* true that a country with net external liabilities must have a trade surplus to keep those liabilities stable relative to national output (4). If the economy's growth rate exceeds the interest rate on its liabilities, then the equation says that trade deficit can be positive and yet still keep the debt/output ratio constant. It is only when the interest rate exceeds the growth rate that a trade surplus must be recorded (i.e., the trade deficit must take a negative value) to maintain sustainability. If the USA has a particularly favourable combination of economic dynamism (i.e., high economic growth) and cheap external financing (i.e., low interest costs on its external borrowings), it may not have to run a trade surplus at any future date to secure sustainability.

The algebra set in the last few paragraphs is hardly complex, but it generates powerful and important insights. In particular, it highlights the key role of the relationship between the USA's growth prospects and the financing costs of its external borrowing in analysing the dynamics of its external debt. It also leads easily to the discussion of simplified, but not unrealistic, illustrative "scenarios" in which the USA moves to sustainability within a plausible time-scale. Two such scenarios are set out in the following section. They provide estimates of the positive swing on the USA's trade balance required to restore sustainability; they show the size of the resource shift into net exports that the USA must make, eventually, to keep its people, companies and government credit-worthy.

The analytical framework contained in the algebra is best understood as a way of thinking about today's trends in order to make sensible comments about the future. Of course, diagnosis is pointless unless it makes the tasks of prognosis and prescription more manageable. (However, the diagnosis here is rather crude. Some criticisms raise deep questions about the validity of the argument. They are discussed in a number of footnotes, particularly footnotes (2), (3), (4) and (5) to this chapter. The reader needs to be warned that the argument might be less compelling if the criticisms were incorporated in the main text.)

Achieving sustainability

Chapter 2 showed that by late 2000 the USA's deficit on the current account had reached 4.5% of its GDP and that, even after the mini-recession of 2001, it remained at about 4% of GDP in early 2002. (In 2002 as a whole it may again approximate 4.5% of GDP.)

Official data on the size of the USA's net external liabilities are a statistical nightmare, because so much depends on the valuation procedure adopted.⁽⁵⁾ Large inconsistencies between estimates made at different times on the same valuation basis, and at the same time on different valuations bases, muddle and complicate analysis. But a fair compromise between the different estimates is that the USA's net external liabilities amount to at least 20% of GDP. If the USA's GDP were static from now on, and the current account deficit stayed at 4.5% of GDP, the ratio of net external liabilities to GDP would be 24.5% of GDP a year from now, 29% two years from now, 33.5% of GDP three years from now and so on. Obviously, this could not continue.

At what figure might the USA's debt-to-GDP ratio stabilize? Plainly, stabilization is not going to happen in the next year or two. So it will occur at somewhat above – perhaps a great deal above – the 20% figure. For the sake of argument, consider two cases, one (“the favourable case”) with a debt-to-GDP ratio of 40% and the other (“the unfavourable case”) with a debt-to-GDP ratio of 50%. What about the values of the two other variables in the analysis of debt dynamics, the rate of interest on international investments and the rate of US GDP growth, both in nominal terms?

The specification of “the rate of interest” in international investments is extremely difficult, because of the huge variety of assets and liabilities involved. A short-cut is needed here to take the discussion forward. The *lowest* interest rate is also likely to be that on the safest asset, presumably government securities. In the last few years the typical annual interest rate on US government debt has been about 6%. The *average* interest rate ought to be somewhat higher, because foreign-owned assets include riskier, higher-return equities and real estate. But assume – for the purpose of the projection in the favourable case – that the interest rate on international investments is only 6%. Of course, a higher interest rate has to be adopted for the unfavourable case. American companies do indeed incur substantial liabilities – in the form of commercial paper and bonds – to foreign investors at the rate on US Treasuries plus a spread to reflect their credit standing. The assumed annual interest rate in the unfavourable case might reasonably be 7%.

A lively debate has proceeded in the last few years about the potential for the so-called “New Paradigm” to boost the USA's long-run rate of output growth. Some economists have argued that the long-run growth rate has increased, as investment in computers and information technology has raised the rate of improvement in business efficiency. They have suggested that this growth rate is now 3.5% a year or even 4% a year in real terms, above the historical norm of 2.5% or 3% a year. Assume, further, that long-run inflation expectations are about 2.5% a year, in line with the yield differential between conventional Treasury bonds and Treasury inflation-protected bonds (or “TIPS”). The implied long-run annual growth rate of nominal GDP is 6% or, most optimistically, 6.5%. If the right figure is 6.5%, it is above the interest rate of 6% assumed in the favourable case. A relatively pessimistic, but not unrealistic, view is that the trend growth rate of the USA's real output is still only 3% a year, giving an annual growth rate of nominal GDP of 5.5%. This number can be incorporated in the unfavourable case.

The sustainability formulae can now be put to work. In the favourable case, with the debt-to-GDP ratio at 40%, an interest rate of 6% and a growth rate of nominal GDP of 6.5% a

year, the sustainable current account deficit emerges as 2.6% of GDP and it is split between a deficit on investment income of 2.4% of GDP and a trade deficit of 0.2% of GDP. In the unfavourable case, with the debt-to-GDP ratio of 50%, an interest rate of 7% and a growth rate of nominal GDP of 5.5% a year, the sustainable current account deficit is 2.75% a year and it is split between a deficit on investment income of 3.5% of GDP and a trade surplus of 0.75% of GDP.

How do these numbers compare with the situation today? At the time of writing (May 2002) revised data are available only for the third quarter of 2001. In that quarter the USA's exports of goods and services were 9.5% of GDP and its imports 12.6% of GDP, while the deficit on unilateral transfers was a further 0.5% of GDP. (Figures for exports, imports and unilateral transfers are on a balance-of-payments basis, but are divided by a figure for GDP from the national accounts.) The trade deficit as such was therefore 3.1% of GDP and a wider concept of the deficit, including the unilateral transfers, was 3.6% of GDP. Meanwhile a further deficit of \$7.4bn, just above 0.3% of GDP, was recorded on net flows of investment income.

The latest situation may now be compared with the two sustainable outcomes identified at a future date. In the favourable case, the trade deficit has to be whittled down from 3.6% of GDP to only 0.2% of GDP; in the unfavourable case, a trade deficit of 3.6% of GDP has to be converted into a surplus of 0.75% of GDP. In other words, the resource switch has to be about 3.5% of GDP in the favourable case and over 4.5% of GDP in the unfavourable case. An allowance also needs to be made for the cyclicity of the starting-point in the third quarter of 2002, which saw falling output at the trough of a mini-recession. Some rebound in imports, and so in the trade deficit, has to be expected as the economy returns to a more normal cyclical position. If so, a sensible verdict is that the USA will need to switch between 4% and 5% of its GDP into net exports over some future period.

More detailed trajectories of imports, exports, the net international investment position and investment income flows can be derived, and one such path to sustainability is set out in an Appendix to this chapter. A standard feature of such trajectories is that the widening in the deficit on investment income account is greater than that on the current account as a whole. This is logical – indeed, inevitable – because the persistence of the current account deficit at high levels for some years implies the incurrance of more liabilities and, hence, the need to pay more investment income to foreigners. It could be argued, however, that the speed of the slide into deficit on investment income is implausibly large, compared with the behaviour of this item in the USA's external payments until now.⁽⁶⁾ At any rate, by conforming to the sustainability formulae outlined above, the USA can arrive towards the end of the coming decade, or more probably in the 2010s or 2020s, at a balance-of-payments pattern which could endure indefinitely. It does not repay its external liabilities and it never returns to current account balance, but its situation is stable in the sense that its net external liabilities are neither rising nor falling relative to national output.

How much strain will the shift into net exports impose on the US economy?

The precise numbers in the above paragraphs should not be pressed too hard, but they serve a useful purpose. They suggest the broad order of magnitude of the shift of US output into net exports that will be required to restore sustainability. The results are not apocalyptic, particularly if the return to sustainability takes place over a 20-year period. (This is the time-scale in the detailed trajectory in the Appendix.) In particular, the required transfer of the USA's national output into net exports is far from drastic when compared with the upheavals which developing countries undergo cycle after cycle because of price swings in their commodity exports.

But – if a 4% - 5% switch of GDP into net exports does prove necessary – it would be the largest such switch in US production away from domestic consumption and investment since the Second World War. In that sense the scale of the adjustment task would be unprecedented. The nearest equivalent was in the late 1980s. In the four-and-a-half years to the first quarter of 1992 the USA achieved a favourable swing in net exports amounting to 3.5% of GDP. If the prospective move of resources into net exports were at the same pace as in the late 1980s, it would have to go on longer; if it took place in the same period of time, it would demand a greater wrench in the pattern of national production (i.e., 1% of GDP a year, not 0.75%, would have to be switched).

The comparison with the late 1980s is valuable. The USA has made a big resource shift into net exports in the past; it can and will do so again in the future. But the events of the late 1980s need to be recalled and emphasised. A nation which moves 0.75% or 1% of its output into net exports every year must also – because of the national income accounting identities – restrict the growth of domestic demand (i.e., private and government consumption, and investment) to a rate 0.75% or 1% a year less than the increase in its output. With the level of the USA's output today perhaps only slightly beneath the long-run trend, restraint over domestic demand will be needed. If this sounds harsh, it may be salutary to note what happened in the four-and-a-half years to the first quarter 1992. Domestic demand grew in real terms at a compound annual rate of under 1.75%. Indeed, from the second quarter of 1990 to the first quarter of 1992 domestic demand fell. Moreover, as discussed in Chapter 2, the dollar was extremely weak on the foreign exchanges from 1985 to 1988, and this weakness fed into domestic inflationary pressures.

To repeat, the numbers set out here should not be understood as an exact forecast of the USA's demand and output growth, and its balance of payments, in coming decades. But the central conclusion – that the USA will have to secure a resource shift into net exports of about 4% - 5% of GDP over a multi-year horizon – is robust. Further, the analytical framework helps to clarify thinking about the USA's balance of payments and thereby to reject some of the more extravagantly optimistic comments about American economic prospects.

It is clear, for example, that – unless the trade deficit narrows in the next year or two – the eventual adjustment task will be more arduous. Suppose that the reduction in the trade deficit is postponed two years so that it starts in 2005 instead of in late 2002 or

early 2003. Then the debt/GDP ratio will be up to 10% of GDP greater – *and that increases the debt/GDP ratio in the calculation of the sustainable ratio of the current account deficit to GDP.* With an interest rate of 6%, the steady-state deficit on investment income is 0.6% of GDP higher for every 10% increase in the debt/GDP ratio; with an interest rate of 7%, it is 0.7% of GDP higher; and so on. Ultimately, the required shift of US output into net exports has to be larger to offset the extra deficit on investment income. The later that the reduction in the trade deficit begins, the larger must that reduction be in order to achieve sustainability.

Some American economists have claimed that the external deficit is good news, because it demonstrates the USA's attractions as a magnet for the world's savings. A common theme is that the deficit is explained by the relative rates of return on investments in the USA and the rest of the world. The USA is said to have a higher rate of return on capital than Europe and Japan, and it is therefore identified as an appropriate destination for capital flows. Writing in the May/June 1999 issue of *The International Economy*, Professor Gary Hufbauer proposed that the current account deficit was best understood as "an investment surplus." The deficit was "a sign of strength," since capital was being attracted to the USA whose economy was "the envy of the world." (7) If this claim were true, an unwelcome implication would flow readily from the analytical framework. If the high rate of return on capital implies an increased interest rate on international investments, the larger is the USA's future deficit on investment income for any given stock of foreign-owned capital and the larger also must be the offsetting trade surplus.

A variant of the envy-of-the-world thesis is that the USA's leadership in high-tech trade will enable it to launch an overwhelming export drive in the next decade, as its technologically superior products dominate world markets. The trouble with this thesis is twofold. First, in 1999 and 2000 the USA incurred deficits on trade in high-tech goods. It had a surplus on high-tech trade when royalty payments and license fees are included to give a concept of high-tech trade in *goods and services*, but it was quite small, running at only \$15bn in 2000. High-tech exports are not big enough to outweigh adverse trends in the rest of the USA's trade. Secondly, the behaviour of most items of high-tech trade has been similar to that of traditional exports. A surplus of over \$10bn on high-tech trade was recorded in 1997, but this dwindled to almost nothing in 1998 and moved into deficit in 1999 and 2000. There is no clear-cut evidence that high-tech exports are growing more quickly than high-tech imports.(8)

The conclusion has to be that the USA has to shift 4% - 5% of GDP into net exports, probably over the next five to ten years, to secure a sustainable payments position in which its net external liabilities are stable at no more than half of its national output. Moreover, it has to make this adjustment to a large extent by achieving faster growth in its traditional exports (relative to its imports). The USA's high-tech leadership is not so decisive that a big export boom is already in prospect and can be pushed through without effort. A resource shift of 4% - 5% of GDP will require restraint over domestic demand, a dollar devaluation or some combination of the two. It may put more strain on the American economy than any other comparable resource shift in the post-war period.

Notes

(1) The point was made by the author in an October 1989 Lombard Street Research occasional paper. ('Do economists know how to recognise a "balance-of-payments problem"?', Occasional Research Paper no. 2 [London: Lombard Street Research, 1989]) The paper is available from the author at tim.congdon@lombard-streetresearch.com.

(2) This assumption is common to most forecasts of the USA's external payments. However, in the real world it is not generally true. The change in net external liabilities may not be equal to the current account deficit, because of revaluations and devaluations of such assets as equities, real estate and direct investment. A particularly serious difficulty arises when, because much of the value of an asset is "goodwill," the asset's market value is well above its book cost. Large divergences between market value and book cost create fundamental problems in the analysis of long-run international payments trends. See the annual surveys of 'The international investment position of the United States' in the Department of Commerce's publication, *Survey of Current Business*.

(3) A key finding of the Federal Reserve's annual surveys of the USA's international payments is that the rate of return on the USA's direct investments overseas is much higher than the rate of return on the rest of the world's direct investments in the USA. (The Federal Reserve's survey of 1999 noted that "the overall rate of return on US direct investment abroad increased only slightly in 1999 – to 9.7%; this figure is considerably below the 11.9% earned in 1997." By contrast, the rate of return on foreign direct investment in the USA was 5.7% in 1999, up from 5.3% in 1998 but lower than 6.5% in 1997. The Federal Reserve commented that "the reasons for the differential in the rates of return are not well-understood." See p. 311 of *Federal Reserve Bulletin* (Washington: Federal Reserve, 1999). The return differential has a very important consequence, that the economic value (and – in the normal course of events – the market value) of any given amount of US investment abroad is higher than the economic and market value of the same amount of foreign investment in the USA. It follows that – if the USA receives foreign investment above its own investment abroad (i.e., runs a current account deficit) – the increase in the value of the USA's stock of investments abroad may be so far ahead of the increase in the value of the foreign investment in the USA as to match, or even to exceed, the alleged "current account deficit". This point raises fundamental questions about the validity of the analytical exercise in the present study. See also the previous footnote.

(4) What about the credit-worthiness of the US government? The claim that the private sector always knows what it is doing – and therefore that a country with a budget surplus cannot have a balance-of-payments problem – is yet another fundamental criticism of the analytical framework in the present study. (See Tim Congdon 'A new approach to the balance of payments', *Lloyds Bank Review* [London: Lloyds Bank, 1982], pp. 1 – 14. The paper developed some ideas originally proposed by Professor Max Corden in some lectures at the University of Chicago in 1976.) While the USA incurred heavy current account deficits in the late 1990s, its government simultaneously ran large budget surpluses.

(5) See Harlan King 'The international investment position of the United States at Yearend 2000', pp. 7 – 15, in the July 2001 issue of *Survey of Current Business* for the Department of Commerce's latest assessment. "With direct investment valued at the current cost of tangible assets, the [USA's] negative net position increased to \$1,842.7bn at yearend 2000 from \$1,099.8bn at yearend 1999; with direct investment valued at the stock market value of owners' equity, it increased to \$2,187.4m. at year end 2000 from \$1,525.3bn at yearend 1999." Obviously, the extent of the USA's "net external debt" depends on how the assets and liabilities are measured.

(6) The widening in the USA's investment income deficit in recent years has been less than might have been expected from the simple application of a realistic rate-of-return number to the accumulated value of its current account deficits. See footnote (3) above for further discussion.

(7) Gary Hufbauer, contribution to a symposium on the USA's external deficit, May/June 1999 issue of *The International Economy* (Washington).

(8) The point was developed at more length in 'Totally unsustainable, part V: high-tech leadership will *not* restore sustainability to the USA's external payments', pp. 3 – 12, in October/November 2000 issue of the *Lombard Street Research Monthly Economic Review* (London: Lombard Street Research).

Appendix to Chapter 3

This appendix sets out an illustrative example in which the USA's external payments return to "sustainability", as defined in the text, within a meaningful time-frame.

The starting-point is late 2001. In the third quarter of 2001 the USA had a deficit on investment income of \$7.4b., equivalent at an annual rate to \$29.6b. If this deficit were capitalised at 6%, the USA's net external liabilities would be \$493.3b. (This is the figure chosen for the USA's net external liabilities (or "negative net international investment position") at the end of the second quarter 2001. Note that the figure is much less than the Department of Commerce's estimates, which are typically in the range of \$1,500b to \$2,000b. In the second half of 2001 the build-up of external liabilities is driven by the model's assumptions, not the actual figures for net international investment income.

In the projection nominal GDP is assumed to be rise by 5.5% a year, nominal exports of goods and services by 6.5% a year, and nominal imports of goods and services by 4.5% a year. Unilateral transfers are assumed to rise in line with GDP, or by 5.5% a year. The return on international investments is assumed to be 7% a year. The numbers for 2001 are actual, apart from investment income and the NIIP. The numbers for 2002 and later are taken from the projection.

Note that the assumptions about nominal GDP growth and the rate of return on international investments therefore correspond to those in the "unfavourable case" mentioned in the text.

The numbers in the exercise were calculated on a quarterly basis, but are presented below on an annual basis in order to make them more compact and manageable. The numbers (which are all in \$b., except when they are ratios) obtained in the projection were as follows:

	Nominal GDP	Goods and services: Exports Imports	Unilateral transfers	Deficit on investment income	Current account deficit
2001	10233	1005 1352	51	15	414
2002	10717	1028 1337	53	54	416
2003	11306	1094 1397	56	84	442
2004	11928	1166 1460	59	116	469
2005	12584	1241 1525	63	149	495
2006	13276	1322 1594	66	185	523
2007	14007	1408 1666	70	222	549
2008	14777	1499 1741	73	261	576
2009	15590	1597 1819	77	302	601
2010	16447	1701 1901	82	345	627
2011	17352	1811 1986	86	389	650
2012	18306	1929 2076	91	436	674
2013	19313	2054 2169	96	483	694
2014	20375	2188 2267	101	532	712
2015	21496	2330 2369	107	583	728
2016	22678	2482 2475	113	634	740
2017	23925	2643 2587	119	686	749
2018	25241	2815 2703	125	739	753
2019	26630	2998 2825	132	791	750
2020	28094	3193 2952	140	844	743
2021	29639	3400 3085	147	895	727
2022	31270	3621 3223	155	945	703
2023	32989	3856 3369	164	994	670
2024	34804	4107 3520	173	1040	626
2025	36718	4374 3679	182	1082	569
2026	38738	4658 3844	192	1120	498
2027	40868	4961 4017	203	1153	412
2028	43116	5284 4198	214	1179	307
2029	45487	5627 4387	226	1197	183

	Net external liabilities: As % of Q4 GDP at annualised Amount rate		Net exports of goods and services: As % of GDP Change, compared with Q3 2001, % GDP		Deficit on investment income % of GDP
2001	692	6.7			
2002	1108	10.1	-2.9	0.2	0.1
2003	1551	13.4	-2.7	0.4	0.5
2004	2020	16.6	-2.5	0.6	0.7
2005	2516	19.6	-2.3	0.8	1.0
2006	3038	22.4	-2.0	1.0	1.2
2007	3588	25.1	-1.8	1.2	1.4
2008	4163	27.6	-1.6	1.4	1.6
2009	4765	30.0	-1.4	1.6	1.8
2010	5392	32.1	-1.2	1.9	1.9
2011	6042	34.1	-1.0	2.1	2.1
2012	6716	36.0	-0.8	2.3	2.2
2013	7410	37.6	-0.6	2.5	2.4
2014	8122	39.1	-0.4	2.7	2.5
2015	8850	40.4	-0.2	2.9	2.6
2016	9590	41.4	0.0	3.1	2.7
2017	10339	42.4	0.2	3.3	2.8
2018	11091	43.1	0.4	3.5	2.9
2019	11841	43.6	0.6	3.7	2.9
2020	12584	43.9	0.9	3.9	3.0
2021	13311	44.0	1.1	4.1	3.0
2022	14014	43.9	1.3	4.3	3.0
2023	14684	43.6	1.5	4.5	3.0
2024	15310	43.1	1.7	4.8	3.0
2025	15878	42.4	1.9	5.0	3.0
2026	16377	41.4	2.1	5.2	2.9
2027	16788	40.3	2.3	5.4	2.9
2028	17095	38.9	2.5	5.6	2.8
2029	17279	37.2	2.7	5.8	2.7

The accompanying charts show the dynamics of net exports and net external liabilities, relative to GDP, given the assumptions.

With exports rising by 6.5% a year and imports by 4.5% a year, while GDP is increasing by 5.5% a year, the USA shifts about 0.2% of GDP into net exports a year. Net external liabilities rise, as a share of GDP, to just under 45% in 2021 and then start falling. The shift of GDP into net exports by 2021 is slightly above 4% of GDP.

By the early 2020s the deficit on international investment income is substantial at about 3% of GDP, but it levels out in 2022 and then starts to fall. In the late 2020s the USA's net external liabilities start to fall relative to GDP and by the end of the projection the current

account deficit is falling sharply. From about the mid-2020s it is no longer necessary for the USA's exports to rise faster than its imports.

The USA's external payments position would be stable if exports and imports grew at roughly the same rate.

Chart 1: Composition of the current account

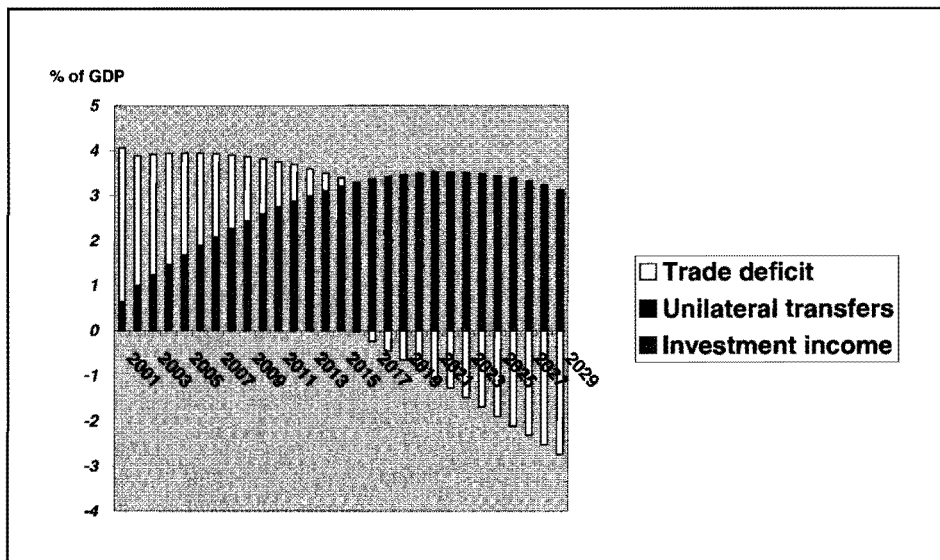


Chart 2: The trade deficit and the current account

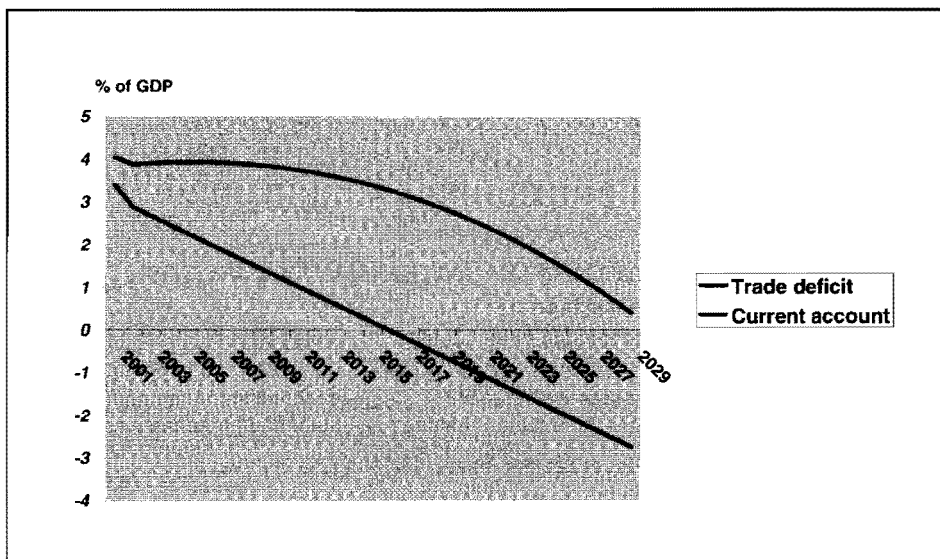
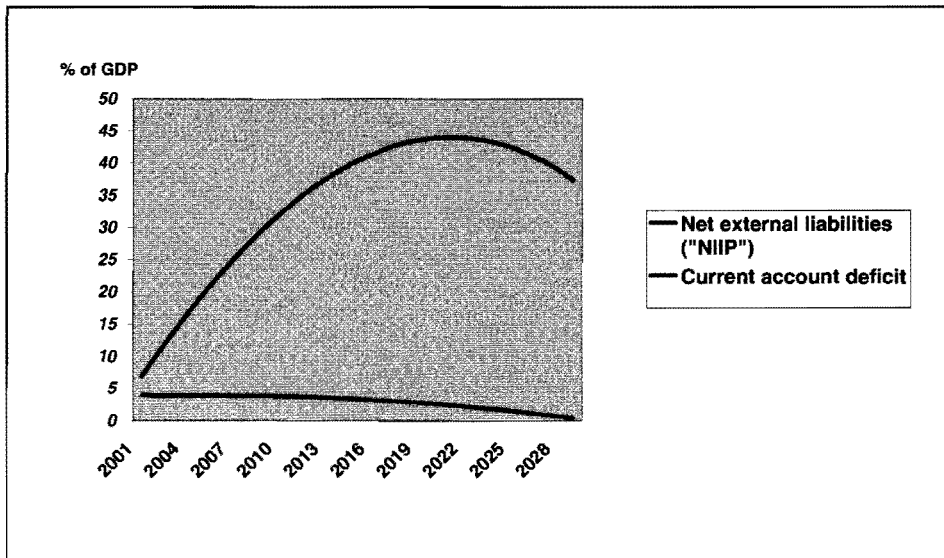


Chart 3: The current account and the build-up of external liabilities



4. Is a big fall in the dollar needed?

Some theory: “expenditure-reduction” versus “expenditure-switching” to correct external deficits

The last chapter explained why the USA has to shift between 4% and 5% of its GDP into net exports at the some period in the foreseeable future, probably in the next five to ten years. The next question is “how?”. Following a distinction made by Johnson, economists propose two main types of policy response to a large external deficit.⁽¹⁾ The underlying thought is that the essence of the deficit problem is that imports are too large relative to exports. (This may sound banal, but it is not. Payments deficits can also be attributed to unsound public finances and irresponsible monetary policy.)

The first type of policy – known as expenditure-reducing – takes it for granted that imports are a reasonably stable proportion of expenditure. If so, policy can reduce imports only by cutting domestic expenditure. A possible by-product of expenditure-reducing policies is that exports may grow more strongly than would otherwise have been the case, because the contraction in demand lowers output and so frees up resources for exports. Nevertheless, as a broad generalisation, the focus of expenditure-reducing policies is on attacking the import bill. Expenditure-reducing policies include tax increases to lower disposable income, retrenchment in public expenditure and increases in interest rates. In principle, expenditure-reducing policies could eliminate an external deficit without a change in the exchange rate.

The second type of policy response is “expenditure-switching.” Here policy aims to harness the price mechanism, first, to lower the proportion of their expenditure that people in the deficit country spend on imports and, secondly, to encourage foreigners to devote a higher proportion of their expenditure to buying the goods and services that it supplies. The classic type of expenditure-switching policy is a devaluation, a sudden, once-for-all and policy-determined change in the exchange rate. But a milder version of the same basic strategy is a gradual decline in the exchange rate unimpeded by foreign exchange intervention and blessed by policy-makers. Tariffs are also sometimes included in the armoury of expenditure-switching weapons, although nowadays their use is restricted by international agreements.

How will the USA tackle its external deficit? Will the emphasis be on expenditure-reduction rather than expenditure-switching, on demand restriction rather than devaluation, or will policy-makers be indifferent to the question and take no active policy steps whatsoever?

Policy options

The option of total indifference – or of “benign neglect” – should not be dismissed out of hand. There is at least an argument that policy-making politicians and bureaucrats cannot know the deep-seated determinants of payments deficits and surpluses between

nations, just as they cannot know the ultimate causes of corporate and personal financial deficits and surpluses within nations. However, governments do have to be concerned about sharp changes in the international demand for their debt and in the repercussions for their banking systems of abrupt swings in international sentiment towards their currencies. The Asian crisis of 1997 showed that a sudden loss of confidence may interrupt the banking flows – notably loans from the international banks – which have previously financed a large current account deficit. Given the scale of the USA's external deficit, it would be foolhardy for American policy-makers to ignore it altogether.

A standard textbook argument is that the expenditure-switching approach is facilitated by a high responsiveness of international trade flows to changes in relative prices. This responsiveness is measured –technically - by the price elasticities of demand for imports and exports, or by the elasticity of substitution between traded and non-traded goods.⁽²⁾ Broadly speaking, the implied policy conclusion is that the higher are the price elasticities, the more attractive are expenditure-switching policies compared with expenditure-reducing policies. Quite elaborate statistical models can be developed, to show the relationship between the size of the dollar devaluation needed and the extent of the resource shift into net exports. Three such models are discussed here for illustration, although the literature on the subject is vast and many other academic papers could be cited.

The studies in which the three models appeared have plainly been motivated by the USA's slide into deficit since the mid-1990s. The first is by Obstfeld and Rogoff, and was presented to the Jackson Hole conference of central bankers in August 2000. ⁽³⁾ (When giving the paper, the dollar was worth 1.11 euros and 108 yen.) They pointed out that the estimate of the required dollar devaluation could not be cast in stone. It depended on circumstances, particularly the assumed length of the period of adjustment to the USA's external accounts and the size of the traded goods sector (i.e., the factories, farms and mines more or less permanently competing in foreign markets or with imports in the US market) relative to the non-traded goods sector. Assuming that the traded goods sector was a quarter of the USA's GDP, and that the adjustment occurred gradually (i.e., over two or three years, with the elasticity of substitution between traded and non-traded goods being held at one), "the real exchange rate would fall by 12%." Different assumptions would give different numbers. If a sudden reversal in trade flows became imperative, "we would need to see a dollar depreciation on the order of 45% - pretty much exactly the short-run number one gets from old-fashioned large-scale black box macro models."

The second study is by Mann and was published by the Institute for International Economics in September 1999. ⁽⁴⁾ (When the study was published, the dollar was worth 0.95 euros and 107 yen.) She recognised the difficulty of defining the notion of "sustainability" in a nation's external payments and reviewed experience from a large number of countries in order to identify "sustainability benchmarks." After examining data from 10 industrial countries in the 1980s and 1990s, she found that the average current-account-deficit-to-GDP ratio was 4.2%, "when the current account [deficit] started to narrow". Even after the narrowing began, the net ratio of foreign-owned claims to the deficit nations' GDPs "continued to climb" and so she questioned whether this variable had been

crucial in triggering the “the change in the current account trajectory”. She then explored three future paths for the USA’s external payments – a base case, a devaluation case and a “structural change” case. In the first two paths the income elasticities of demand for the USA’s exports and imports were taken from the most commonly-cited empirical studies; in the third these elasticities were overridden and it was assumed that the income elasticity of demand for the USA’s exports and imports were closer together than had been true in recent decades.

The base case relied on assumptions about growth in the USA and the rest of the world, and about the rate of return on international investments, which seemed plausible given patterns in the last few years, *but did not include a change in the exchange rate*. (The assumed rate was “about 120 on the IMF’s nominal effective exchange rate index”, with 1995 = 100.) The outcome was external deficits which – after only a few years – became plainly unsustainable. Even with “high performance” in the American economy (i.e., a good supply-side record), the current-account-deficit-to-GDP ratio moved out to 5.0% in 2005 and 7.0% in 2010, well ahead of Mann’s 4.2% sustainability benchmark. The second case shared most of the same assumptions as the base case, *except that the exchange rate was devalued by 25% immediately (i.e., in late 1999) and kept at the same lower level throughout the period of the projection*. The effect was to slash the current-account-deficit-to-GDP ratio to “less than 2% in the next two or three years,” which would restore sustainability.

Unhappily, “after about five years...the trade account and the current account deficit” widened “again”, because the import elasticity of the demand for the USA’s exports was taken to be lower than that for its imports. With the USA’s output growth ahead of that in other countries, this “income asymmetry” condemned the current account to slither into the red. The only escape came in the third case, which rejected statisticians’ estimates of the income elasticities. If the rest of the world could become more receptive to the USA’s exports, and particularly to the service exports in which the USA appears to excel, there would be the necessary “structural change” in the export income elasticity. The USA’s trade would again be “on a sustainable trajectory,” with the current account deficit staying at around 3% of GDP (i.e., lower than the unacceptable 4.2% figure).

A third recent analysis of the USA’s external payments is by Papaioannou and Yi, and appeared in the Federal Reserve Bank of New York’s *Current Issues in Economics and Finance* of February 2001. (5) (When the paper was published, the dollar was worth 1.09 euros and 116 yen) One novelty of their analysis was the notion of a “potential output trade balance.” This was the level of a nation’s trade balance associated with its trend output. (“Trend output” is that at which unemployment is at its natural rate and inflation is stable.) The purpose of deriving a “potential output trade balance” was to separate cyclical from non-cyclical influences on changes in the trade balance, and to quantify their relative sizes. More specifically, the authors wanted to answer the question, “how far was the deterioration in the USA’s trade balance between 1996 and 1999 due to cyclical forces?” Like Mann, they had to insert values of the import and exports income elasticities into their model (i.e., they had to accept the famous “income asymmetry”) before they could make estimates.

In their central case Papaioannou and Yi calculated that, “cyclical forces in the USA – in particular, the import surge produced by the economic boom – accounted for \$45bn, or almost one-third, of the \$142bn increase in the deficit between 1996 and 1999”. This assessment was robust; it had to be amended, but not fundamentally changed, if different assumptions were made about the income elasticities. In other words, the dominant reason for the widening of the USA’s trade gap in the late 1990s was not the cyclical vibrancy of American domestic demand in a relatively weak world economy, but non-cyclical forces “such as relatively low interest rates, a strong dollar, and high productivity growth.”

The three studies considered here had different approaches to the subject, but one common message emerged. It was that sustainability – however defined – could not be easily restored by policy actions which ignored the exchange rate. The Papaioannou and Yi paper implied this result in a simple and compelling way. If the boom of the late 1990s was not the main cause of the widening of the trade gap, something else had to be the culprit. Their paper was cautious in its even-handed references to three “non-cyclical forces,” but in reality surely only one such force – the strong dollar – had to take much of the blame. (Central bank economists may be well-trained and objective, but – if they work for the Federal Reserve Bank of New York – they have to be careful what they say about the dollar exchange rate!) The analyses by Obstfeld and Rogoff, and by Mann, were more frank in their comments on the exchange rate. While acknowledging that the scale of the downward exchange rate move could be moderated the longer the adjustment period, Obstfeld and Rogoff mentioned dollar depreciations in the 12% - 45% range. Mann conceded the dependence of her results on the divergence between the income elasticities of demand for the USA’s exports and imports, but her base case without devaluation was obviously unsustainable and even a 25% devaluation was insufficient in the long run.

When three separate research exercises arrive at the same broad view, that view becomes difficult to challenge. The conclusion has to be that expenditure-reducing policies cannot, by themselves, take the USA back to external sustainability. The three studies were published at different times – in September 1999, in August 2000 and February 2001 – but events soon confirmed their message. In 2001 the USA suffered a sharp slowdown in the growth of domestic demand, with numerous media references to “the recession” by late in the year. The slowdown reduced the current account deficit somewhat, but it was not enough to bring the deficit down to the levels generally regarded as sustainable. With the bounce-back in the economy in early 2002, the trade and current account deficits again started to widen. No doubt expenditure-reducing measures could work if they were on the necessary scale, but this might involve a big recession and serious damage to the world economy as well as to the USA. The verdict has to be that expenditure-switching action will have to occur sooner or later. More concisely, the dollar will have to fall in value against other major currencies.

Heavy fall in dollar is inescapable

Chapter 3 showed that, to restore sustainability to its external accounts, the USA has to shift 4% - 5% of its GDP into net exports. By reviewing key contributions to the literature,

this chapter has demonstrated that – realistically – the shift can only happen if the dollar falls heavily against the other major currencies. The major currencies in the context are the euro and the yen.

As in the previous chapter, it is helpful to recall the 1980s. After the sharp increase in the USA's trade and current deficits in the early 1980s (which occurred in conjunction with substantial dollar appreciation), the dollar slumped between 1985 and 1988. Economists were baffled by the strength of the dollar in 1983 and 1984, but eventually they were right that a major devaluation was needed to put the USA's external payments back onto a viable path. The same sort of comment, backed up by the same kind of analyses, is being made today. The economists will again be right, with the big uncertainties being the length of time over which the adjustment proceeds and the scale of the dollar devaluation needed to correct the disequilibrium. It may be that the adjustment lasts over a decade and that the fall in the dollar is only 10% or 20% from its level in early 2002. But a more plausible assessment is that the adjustment will occur in under a decade and require the dollar to fall by between a quarter and a half (against competitor currencies, on a trade-weighted basis) from its peaks. (6)

Notes

(1) Harry Johnson 'Towards a general theory of the balance of payments', pp. 46 – 63, in Jacob Frenkel and Harry Johnson (eds.) *The Monetary Approach to the Balance of Payments* (London: George Allen & Unwin, 1976). (The paper originally appeared in 1958.) The distinction between expenditure-reducing and expenditure-switching policies appears on p. 56 of the Frenkel and Johnson volume.

(2) The price elasticity of the demand for a product is defined by the ratio of the proportional change in the quantity demanded to the proportional change in the price. If quantity demanded quadruples, when the price halves, the elasticity of demand is two. The income elasticity of the demand for a product is the ratio of the proportional change in quantity demanded to the proportional change in incomes.

(3) Maurice Obstfeld and Kenneth Rogoff 'Perspectives on OECD economic integration: implications for US current account adjustment', pp. 169 – 208, in *Global Economic Integration: Opportunities and Challenges* (Kansas: Federal Reserve Bank of Kansas, 2000).

(4) Catherine Mann *Is the U.S. Trade Deficit Sustainable?* (Washington: Institute for International Economics, 1999). The following account of Mann's position borrows heavily from chapter 10 of the study and, in particular, from pp. 156 – 71.

(5) Stefan Papaioannou and Kei-Mu Yi 'The effects of a booming economy on the US trade deficit', pp. 1 – 6, February 2001 issue of *Current Issues in Economics and Finance* (New York: Federal Reserve Bank of New York).

(6) These conclusions are rather general and cannot claim to be scientifically exact. It is worth noting the forecasting failure of an exercise carried out at the Washington-based Institute for International Economics in 1989. The institute published a study on *American Trade Adjustment: the Global Impact by Cline*, which warned about the medium- and long-run consequences of the deficit which the USA was running at the time. A sense of perspective is given by noting that in 1988 the current account deficit was \$126bn, about 2% of GDP, and that Cline judged this as risky in its eventual implications for the USA's external solvency. He took a ratio of external debt to gross national product of 14% as a higher limit, and envisaged a large dollar devaluation to limit the external deficit and foreign debt. The dollar was in fact a weak currency until 1995, but it is clear that Cline was too alarmed by ratios of deficits and debt to GNP/GDP which would not now be regarded as a matter for comment. Economists must accept, in all humility, that they have trouble in spotting and defining a "balance-of-payments problem."

5. Can the coming slide in the dollar be reconciled with its status as the world's dominant reserve currency?

Why do nations hold foreign exchange reserves?

Any discussion of the future of the dollar has to be set within the broader context of financial geopolitics. An argument can be made that – in a world of floating exchange rates – governments do not need to hold reserves of foreign exchange and gold at all. The underlying thought is that changes in exchange rates will ensure that payments between nations balance, without the need for official purchases or sales of foreign exchange. As such purchases and sales are therefore unnecessary, so also is a government-owned stock of gold and foreign currency.⁽¹⁾ The world today has a hybrid currency system, with the currencies of big countries and the European currency area floating against each other, while the currencies of small countries are sometimes fixed against a big-country currency and sometimes floating. There is good evidence that the small countries' reserves tend to be mostly in the currency of the big country to which their own currency is linked, or with which they have close trading and financial ties.⁽²⁾ Nevertheless, virtually all governments – including the governments of big countries with floating exchange rates – hold reserves. Clearly, the nature of the international currency system cannot be the only determinant of their demand for reserves.

Insight is gained by recalling the historical development of international financial arrangements and the geographical distribution of reserve holdings today. The salient feature of the historical record is that – until the late 20th century – governments' international reserves were dominated by gold. In the 19th century this was a necessary and inevitable by-product of the gold standard, which was managed by the principal trading nation, Britain. In the early 20th century British decline implied the absence of a global hegemon and considerable geopolitical instability. This instability was evidenced not only in two world wars, but also by severe restrictions on trade and financial flows between nations in the inter-war period. Because of the prevailing uncertainties, the governments and peoples of different nations were unwilling to build up large paper claims on each other. Quite simply, they were afraid that debtor nations – or even debtors in creditor nations – would not pay up. Gold had the key virtue that it had intrinsic value; its credibility in payment did not depend on the promise of a particular nation or government. In extreme circumstances, when nations were at war or faced trade embargoes, gold was a reliable international money. Unlike paper money, it could be expected to serve as a cross-border store of value and medium of exchange at all times.

In other words, governments held monetary reserves not merely to protect a particular exchange rate, but because of geopolitical instability. In times of national emergency, and in particular when war was threatened or had broken out, these reserves could be mobilized to buy weapons and essential imports, such as food and oil. In the polycentric world economy of the early 20th century – when several powers were striving for leadership – gold was the most basic reserve asset. At the start of the 21st century, when

the leading industrial nations are at peace and a book has been written on *The End of History*, to recall this element in the demand for reserves may seem anachronistic, even eccentric. But its continued relevance is demonstrated by focussing on an obtrusive fact about the current geographical distribution of reserves.

The greater part of world output is produced in North America and Europe, but countries in these two continents do not hold most of the world's foreign exchange reserves. Instead Asian countries are by far the largest holders. The discrepancy between their share of world output and their share of world foreign exchange reserves is striking. A possible explanation is the recent Asian crisis, which reminded nations such as South Korea and Thailand that their governments ought to have foreign exchange reserves in order to facilitate the servicing of their private sectors' international debts. But this cannot be the whole story. Asian countries had a disproportionately high share of total foreign exchange reserves well before the beginning of the crisis with Thailand's devaluation of the baht in July 1997. Moreover, as Table 5.1 shows, the most sizeable foreign exchange reserves are held in Japan, China and Taiwan, two of which (Japan and Taiwan) are international creditors. Singapore also has unusually ample foreign exchange reserves for a small country, particularly in view of its massive net foreign assets apart from its reserves.

Table 5.1: The composition of the world's foreign exchange reserves, end-2001

The following table shows that the main Asian holders of foreign exchange reserves hold almost half of the world's foreign exchange reserves, although they account for under a fifth of world output.		
	Value in \$b.	% of world total
All countries	2156.4	
North America	90.3	4.2
Euro Area (inc. ECB)	235.4	10.9
Rest of Europe	258.2	12.0
Major Asian holders		
- Japan	394.1	
- China (Mainland)	227.7	
- China (Hong Kong)	111.8	
- Taiwan	122.2	
- South Korea	106.0	
- Singapore	75.1	
Total	1036.9	48.1
Rest of world	535.6	24.8
Source: <i>International Monetary Fund</i>		

Why, then, does Asia have such a large demand for foreign exchange reserves? A case can be made that a vital underlying factor in these countries' demand for foreign exchange reserves is continuing diplomatic instability in East Asia and, more specifically, the unpredictability of China. China is not only the world's most populous nation, but also potentially a leading economic power, yet its policies remain hard to read. By holding large quantities of dollars deposits and US Treasury bonds, other Asian governments may believe they have diplomatic clout in Washington. In the extreme, they may believe these holdings give them the means to apply pressure on US policy.

The coming slide in the dollar: how will it affect the demand for the dollar as a reserve asset?

The message of the last section may be summarized by saying that nations' need to hold foreign exchange reserves and their demand for particular reserve assets are influenced by both economic and non-economic considerations. Reserves are held for economic reasons – to give governments some power over exchange rates (particularly if the exchange rate is fixed), to facilitate the servicing of external official debt and to provide support to the banking system in the servicing of its external debt. But they are also held for non-economic reasons, particularly to reinforce governments' diplomatic and military capability in an uncertain geopolitical environment.

How much would the international demand for the dollar as an international reserve asset be undermined by a large and protracted fall in its value? The answer depends partly on the relative importance of the economic and non-economic considerations in the demand to hold it. A fair comment is that the non-economic demand to hold the dollar – the demand based on geopolitical imperatives – may be little affected by a fall in its value. The diplomatic and military motives for holding dollars may be insensitive to exchange rate fluctuations. (But that may not be entirely comforting for the USA. By bringing the role of non-economic factors in the Asian demand for dollars more to the fore, the USA's perhaps unwilling involvement in a major theatre of international tension is clearly anticipated.)

On the other hand, the economic demand to hold the dollar in foreign exchange reserves seems certain to be undermined by a decline in its value. This economic demand for reserves seems to be the relevant one for most European and Latin American nations. A dress rehearsal for the possible future foreign exchange dramas was provided in the 1960s and 1970s, when the appreciating deutschemark and yen gained ground relative to the two traditional key currencies, the dollar and the pound, as reserve assets. The fall in the international value of both the dollar and the pound must have affected their appeal to official holders of foreign exchange. If the dollar were again to lose over a quarter of its value (as suggested at the end of Chapter 4), these holders could not be indifferent. They would want to have another asset of more stable and predictable value.

The euro has been widely canvassed as an alternative to the dollar. The combined GDP (about \$7,000bn) of the eurozone's members is smaller than the USA's GDP (over \$10,000bn) at current prices and exchange rates (May 2002), but the difference between them is a gap, not a chasm. At present the euro's weight in the world's foreign exchange reserves is much less than implied by the eurozone's and the USA's relative economic size. If the dollar were to plunge heavily in value against the euro, an adjustment to a more balanced pattern of reserve holding would be logical. (Similar remarks might also be ventured about the yen, but Japan's economic difficulties over the last few years appear to disqualify it from an expanded reserve currency role for the time being.)

However, the euro has two fundamental weaknesses as a reserve currency. The first is that it is a most unusual construct, the currency of an area with 12 national governments. No other example can be cited of significant sovereign nations sharing a single legal-tender

currency. The debate about the relationship between monetary union and political union is far from settled, and a case could be made that the 12 “governments” are members of a *de facto* political union. But they continue to think of themselves as national governments, with responsibilities for banking supervision, deposit protection, debt management and so on. The extent of these responsibilities, and in particular the demarcation of their roles relative to the European Central Bank’s, are questions of great institutional complexity and political difficulty. But these questions are also important to governments and central banks in Asia, Latin America and the rest of the world, when they decide the currency denomination of their reserves. A fair comment is that – unless a fully-fledged political union emerges in Europe – the euro will be handicapped in its competition with the dollar. The dollar would have to be extremely weak over a long period for the euro to overcome the unattractiveness inherent in the circumstances of its birth.

The euro’s second weakness is more deep-seated. The nations of the Eurozone face an unprecedented economic and social challenge in the early 21st century from demographic trends. Not only will the number of old people be rising relative to the working-age population, but the working-age population will be falling in most of the eurozone’s members. From the late 2010s the fall will exceed 1% a year in some countries, severely restricting economic growth. The contrast with the USA, where immigration seems likely to cause labour force expansion more or less indefinitely, is marked. Their different demographic patterns imply that the USA will increase in economic importance compared with the Eurozone in the opening decades of the 21st century.⁽³⁾

Will gold become more attractive as a reserve asset?

A reasonable case can therefore be made, on institutional and strategic grounds, that the euro will not rival the dollar as a reserve asset in coming decades. Yet this study has argued that dollar has to fall heavily against other leading currencies, with its exchange rate down by perhaps between a quarter and a half, to facilitate a resource shift of 4% - 5% of GDP into the USA’s balance of payments. On the one hand, the dollar seems irreplaceable; on the other hand, it looks thoroughly unattractive. How is the conundrum to be resolved? And is this where gold can make a comeback?

Much will depend on the return on dollar assets. It is worth emphasising that the dollar may be losing value relative to, say, the yen, but dollar bonds could still give a better overall return than their yen-denominated alternatives because they have a higher yield. If the yield on dollar assets rises to persuade international money managers to keep them, dollar assets will remain worthwhile investments even in a weak-dollar environment. Gold has the serious disadvantage that, by itself, it offers no yield. It is true that an income return can be secured nowadays by gold loans in the derivatives market, but the return is modest compared with that available in dollar bonds. Gold could overcome this drawback only if the real return on dollar paper assets were to be hit by rapid inflation. If inflation were to exceed the interest rates on dollar deposits and bonds (as it did in the 1970s), the negative real return on dollar assets would cause wealth-holders around the world – including governments and central banks – to reconsider the investment merits

of gold. If the gold price were rising in line with or faster than the general price level, the return on gold would be above that on dollar paper assets. Gold would again be a more attractive reserve asset.

The key issue here is whether dollar depreciation is associated with high American inflation. As the double-digit annual inflation rates of the 1970s came as a shock to savers, it took them time to catch up with the different investment context. Interest rates lagged behind inflation and real interest rates became negative, creating the ideal conditions for rising prices of gold and other so-called "hard assets" (oil, real estate, commodities). No one can say for certain whether the dollar's coming fall will be accompanied, once again, by an upturn in inflation. Crucial will be central banks' – and particularly the Federal Reserve's – attitude towards the causes of inflation. The intellectual underpinnings of Volcker's assault on inflation in the early 1980s, that inflation is caused by excessive growth of the quantity of money, is now profoundly unfashionable in the USA and other English-speaking countries.

Perhaps the greatest imponderable of all is whether the global political and economic stability of the 1990s will prove to be transient or more lasting. Tension between Western values and Islamic fundamentalism has been a background theme in much geo-political discussion for many years, but the events of 11th September 2001 made the subject more urgent and problematic. The Middle East has traditionally been a significant importer and holder of gold, and the demand for gold in jewellery remains stronger in Saudi Arabia and the Gulf states than in other societies with a similar level of income per head. If these nations were to weaken their military and economic alliances with the USA, there could be a reduction in the official reserve demand for the dollar as well as an increased private sector interest in gold as a safe haven asset.

At any rate, it must be true that a sudden collapse in the dollar's external value is likely to feed back to the USA's domestic inflation rate. (4) As Preeg has warned in *The Trade Deficit, the Dollar and the US National Interest*, the most serious threat from the payments deficits is "the familiar syndrome of financial markets tending to overshoot equilibrium levels when reacting to perceived imbalances," with the result being "an excessively large decline in the dollar". (5) Although policy-makers around the world accept that exchange rates are set by market forces and are understandably reluctant to meddle with currency fluctuations, they need to be alert to the dangers of continued large American payments deficits. They cannot avoid the message that such deficits will have to be countered – sooner or later – by a fall in the dollar; they also cannot deny that, if the dollar's fall is too large and compressed into too short a time-scale, it will raise American inflation and shatter the confidence in paper assets built up in the 1980s and 1990s.

Notes

(1) A large academic literature on “the demand for foreign exchange reserves” exists, but much of it assumes a peaceful world in which the demand is essentially economic. (It is a function of the level of imports, of terms-of-trade shocks and such like.) The literature appears to overlook that in the real world governments must sometimes fight wars and that to pay for sophisticated weapons they must hold large amounts of the currency of the world’s leading military power.

(2) Michael Dooley and others ‘The currency composition of foreign exchange reserves’, pp. 385 – 434, *IMF Staff Papers* (Washington: International Monetary Fund, 1989).

(3) The demographic constraint on Europe’s future growth was discussed in research papers in the November 2001 and January 2002 issues of the *Lombard Street Research Monthly Economic Review*.

(4) An article by Robert Rich and Donald Rissmiller in the July 2000 issue of the Federal Reserve Bank of New York’s *Current Issues in Economics and Finance* argued that the low inflation of the late 1990s was not due to a fundamental improvement in the USA’s supply-side performance, but “to a large and persistent decline in import prices.” The strong dollar must have been vital to this decline, although the authors in fact excluded exchange rate movements from their model.

(5) Ernest Preeg *The Trade Deficit, the Dollar and the US National Interest* (Indianapolis: Hudson Institute, 2000), p. 89.

Statistical Appendix

Table 1: Global reserve changes (end-year; SDR bn)

	1971	1981	1991	2001	Change over whole period
Foreign exchange	74.6	291.9	646.2	1,616.7	+2,067%
Gold*	41.4	326.2	232.3	203.3	+391%
SDRs	5.9	16.4	20.6	19.6	+232%
Reserve position in the IMF	6.4	21.3	25.9	56.9	+789%
Total	128.3	655.8	925.0	1,896.5	+1,378%

Source: IMF *Gold at market prices

Table 2: Composition of global reserves (end-year)

	1971	1981	1991	2001
Foreign exchange	58%	45%	70%	85%
Gold*	32%	50%	25%	11%
SDRs	5%	2%	2%	1%
Reserve position in the IMF	5%	3%	3%	3%

Source: IMF *Gold at market prices

Table 3: Currency composition of foreign exchange reserves (end-year)

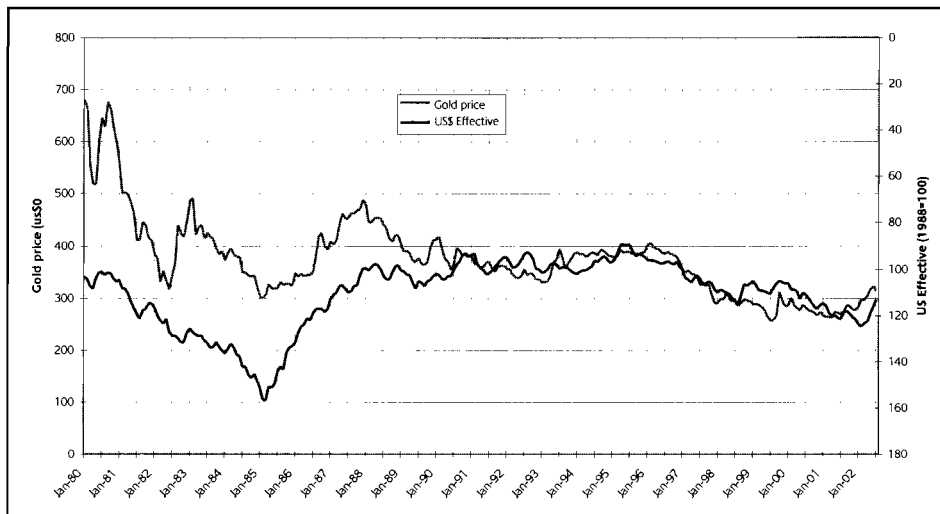
	1991	2000
US dollar	51.3%	68.2%
Yen	8.5%	5.3%
Pound sterling	3.3%	3.9%
Swiss franc	1.2%	0.7%
Euro*	29.7%	12.7%
Other	6.0%	9.2%

Source: IMF
* for 1991, means current constituent currencies of the Euro

Global distribution of gold reserves (tonnes) throughout the latter half of the 20th Century

	1950	1960	1970	1980	1990	2000	2001
Institutions	1,375	2,148	3,605	6,115	6,369	4,168	4,185
North America	20,795	16,609	10,542	8,874	8,605	8,174	8,182
Western Europe	5,927	14,126	18,053	15,439	15,147	15,010	14,577
Japan	6	220	473	754	754	764	765
Other developed	104	163	213	248	249	827	847
Other developing	2,648	2,578	3,680	4,407	4,454	4,784	4,906
Total	30,855	35,842	36,566	35,836	35,578	33,726	33,463

Gold (scale reversed) vs US\$ Effective Exchange Rate, Monthly 1980-2002



Central Bank Gold Holdings since 1948

