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Michael D. Bordo  
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**ABSTRACT**

This paper takes an historical perspectives approach to the current episode of global imbalances. I consider four historical episodes which may give some indications as to whether the adjustment to U.S. current account deficit will lead to a 'benign' or 'gloomy' outlook. The episodes are: the transfer of capital in the earlier era of globalization the late nineteenth century; the interwar gold exchange standard; Bretton Woods; and the 1977-79 dollar crisis. I conclude that adjustment in earlier era of globalization has more resonance for the current imbalance than the other scenarios.

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## **Historical Perspectives on Global Imbalances**

### **1. Introduction**

Current concern over the possible unpleasant consequences of unwinding the global imbalances reflected in a large U.S. current account deficit and comparable current account surpluses in East Asia has led to a discussion of reform of the international monetary system. Some have called for a new Bretton Woods system (Uzan 2004) others for strengthening the mechanisms of policy coordination developed in the 1980's (King 2005).

An historical approach may be useful in putting matters in perspective. The present international monetary regime of managed floating was preceded by three regimes which had different experiences with imbalances and their adjustment. Under the classical gold standard with fixed exchange rates, smooth adjustment to imbalances occurred through the price specie flow mechanism and capital flows with a very limited role for monetary policy.

The interwar gold exchange standard which tried to replicate the performance of the gold standard failed because, opposite to the gold standard, monetary authorities subsumed external balance to domestic considerations and because the U.S. and France, key surplus countries, were unwilling to allow the necessary adjustment of rising prices, thereby imposing the burden of deflation and recession on the U.K., the key deficit country.

The Bretton Woods system was established in 1944 to overcome the fatal flaws of the interwar. Adjustment to imbalances was supposed to be symmetrical between deficit and surplus countries with international reserves and IMF assistance to serve as buffers to

international shocks. It broke down because it evolved into a gold dollar system under which the central reserve country did not have to adjust to a growing balance of payments deficit and which required the central reserve country, the United States, to follow stable monetary policy, which it did until 1965 when it shifted to an inflationary policy; and because the Bretton Woods system required capital controls, which as time went by, became ineffective (Bordo 1993).

The present system of managed floating has gone through several cycles of perceived misalignment since 1973, which like today, were viewed with alarm. After a rocky start in the 1970's adjustment has been relatively smooth working primarily through the exchange rate, relative prices and domestic expenditure.

In this paper I first discuss the current set of imbalances, contrasting the views of those who consider its resolution as benign with those who expect it to be painful. I then give some historical evidence from each of the four regimes which may have some resonance for today. I consider the smooth adjustment to the massive international transfer of capital in the pre 1914 period and then contrast them to three episodes which were less benign: the late 1920's and early 1930's; the breakdown of Bretton Woods 1965 to 1971; and the so called dollar crisis of 1977-79. In conclusion I consider the questions: how does today's experience fit in with the historical patterns and is there a valid case for international monetary reform.

## **2. The Current Situation**

### **The Gloomy view**

Recent concerns over global imbalances associated with the U.S. current account deficit to GDP ratio in excess of 5 % (see figure 1) and U.S. net foreign liabilities of \$2.7 trillion or 25% of GDP (see figure 2) have raised fears of a drastic readjustment involving a massive depreciation of the dollar (as large as 90% in some scenarios [Blanchard et al 2005]) - - it has already fallen about 30% in nominal trade weighted terms against our major trading partners (see figure 3) - - with attendant potentially serious effects on the U.S. and global economies [ See e.g. Obstfeld and Rogoff (2004)]. The adjustment would involve reallocation of consumption and production in the U.S. from non traded to traded goods, a possible rise in inflation, leading to greater tightening of monetary policy which would induce a recession. The decline in income would reduce both the demand for imports and domestic consumption and encourage domestic saving, simultaneously improving the two faces of imbalance - - the current account and the savings investment gap.

At the same time the adjustment would have opposite effects in Europe and Japan, areas with current account surpluses and excess savings (see figures 4 and 5). To the extent that European nominal rigidities prevent it from adjusting to the decline in demand for its exports to the U.S., its real economy could suffer. China with its currency pegged to the dollar would not have to adjust much and would gain a competitive advantage in the U.S. market especially against Europe.

In addition, it is argued that to the extent that the imbalances have been financed by foreign, especially East Asian central banks accumulation of U.S. treasury bills (up to

65% of their international reserves) that some point will be reached where they will dump their depreciating dollar assets and shift their portfolios towards the euro, thereby aggravating the situation.

The current situation is often attributed to the IT boom of the 1990's which induced a massive private capital inflow into U.S. equity markets. The bursting of the tech boom (bubble) in 2000 followed by 9/11, a U.S. recession and the Afghanistan and Iraq wars led to a shift of the U.S. budget deficit from surplus to a deficit of close to 4% of GDP. This twin deficit problem is viewed as a key determinant of the deteriorating situation (Frankel 2004).

### **The Benign View**

An alternate view does not regard the outlook in such bleak terms. It posits that adjustment will be smooth, protracted and benign, very much like what happened in the late 1980's when the U.S. current account deficit recorded a peak of about 4% of GDP. This view (see e.g. Greenspan 2003) stresses the underlying force of financial globalization - - a burgeoning phenomenon since the 1970's, which has encouraged residents of open economies to increase their holdings of foreign assets as a way to diversify portfolios and smooth out shocks to consumption.

Global assets and liabilities have mushroomed in the past 3 decades, especially in the 1990's [Lane and Milesi-Ferreti (2005)]. Globalization and a decline in home bias - - a tendency of domestic investors to prefer domestic assets in their portfolios - - have deepened and broadened financial markets around the world and above all in the U.S,

which has seen a disproportionate growth in the demand for its assets because it offers a higher real rate of return based on the economy's long-run good performance.

Moreover according to Bernanke (2005), the imbalances largely reflect a glut in global savings partially reflecting the aging of populations in Japan and some European countries but primarily reflecting a reaction by East Asian monetary authorities to the effects of the Asian financial crisis of the late 1990's. These central banks prefer to hold dollar assets to protect themselves against similar shocks.

Thus in this view the current account deficit and the rise in U.S. net foreign liabilities reflect the demand for U.S. instruments by foreigners. Adjustment, to the extent it needs occur will be benign because the underlying long-run positive fundamentals will continue, and for two additional reasons: valuation effects - - that to the extent dollar depreciation is unexpected, it will reduce the value of U.S. foreign liabilities (Gourinchas and Rey 2004); and a reduced pass through - - recent empirical evidence shows that only a very small fraction of dollar depreciation passes through to higher inflation (Greenspan 2005).

### **3. Globalizing Capital Flows and the adjustment mechanism: a benign outcome a century ago.**

A different and perhaps enlightening perspective on the issue is to delve into economic history for earlier episodes of global imbalances which may have some resonance for today and which may tell us what is in store for the future. An important precedent for the benign outcome view is the previous era of financial globalization from

1870-1914. It was characterized by a rapid global buildup of external assets and liabilities and also of long-standing current account imbalances comparable to today's experience.

The fifty years before World War I saw massive net private flows of capital from the core countries of Western Europe to the countries of recent settlement overseas (mainly the rapidly developing Americas and Australasia), financing railroads and other infrastructure as well as budget deficits (especially in the form of bonds but also in the form of foreign direct investment). At the peak, the associated current account surpluses in Britain reached 9 percent of GDP and were almost as big in France, Germany, and the Netherlands (See figure 6). For the principal capital importers in the late nineteenth century (Argentina, Australia, and Canada), current account deficits exceeded 5 percent of GDP on average. Earlier in the century, the U.S. experienced similar flows but by century's end it began to run current account surpluses.

In addition data on ratios of stocks of foreign assets and liabilities to GDP for selected countries and regions compiled in Obstfeld and Taylor (2003), presents a picture of a u – shaped pattern. At its pre 1914 peak the share of foreign assets to world GDP was approximately 20%. It declined from that level to a low point of 5% in 1945 with the prewar level only being reached by 1985. Since then it has risen to 57% by 1995. A similar picture emerges from the ratio of liabilities to overall GDP.

The British held the lion's share of overseas investments in 1914, 50% followed by France at 22%, Germany at 17%, Netherlands at 3% and the U.S. at 6.5%. This compares with the U.S. holding of global assets in 1995 at 25%. These funds in turn represented up to one half of the capital stock of one of the major debtors (Argentina) and close to one fifth for Australia and Canada.

A striking feature of the pre 1914 data is the persistence in the current account imbalances. Bordo, Eichengreen and Kim (1998), using the coefficients of an AR(1) regression as well as augmented Dickey Fuller (ADF) test find evidence of significantly greater persistence in both the deficits of the principal capital recipients and the capital exporters compared to the recent experience. Similar evidence is seen in variance ratios calculated by the authors.

Finally the adjustment mechanism to the massive capital transfer worked very smoothly. It occurred through the price specie flow mechanism of the classical gold standard (Bordo 1984). The transfer of long-term capital from Europe to the New World to finance railroads and other infrastructure was also accompanied by gold flows as the demand, for example for U.S. railroad bonds by British investors led to a demand for dollars hence pushing the dollar to the gold import point. The gold inflows in turn tended to raise the price of U.S. exports relative to imports, i.e. to improve the terms of trade, (as well as raise the ratio of the prices of traded and non traded goods). It also allowed the U.S. to import more goods than otherwise – much of these imports consisting of capital goods e.g. rails from Britain. As relative prices adjusted the gold flows would tend to be reversed closing the imbalance. Moreover short-term capital movements speeded up adjustment as gold flows into the U.S. reduced interest rates relative to Britain.

The smooth adjustment to the capital transfers of the pre 1914 era many believe reflects the fact that the world was on the gold standard which provided a stable and credible nominal anchor. The gold standard also served as a signal of fiscal rectitude (“a good housekeeping seal of approval” which assured investors that their debt would be repaid and serviced. [Bordo and Rockoff 1996]). Also many of the capital recipients were

part of the British Empire. The latter established institutions and safeguards such as giving colonial (Dominion) government debt trustee status in the UK (i.e. having a de facto British government guarantee) which virtually eliminated country risk.

However the adjustment mechanism in the earlier era of globalization was not always benign. Indeed although current account imbalances were more long-lived in the pre 1914 era than in the recent period, they were punctuated in some countries by severe reversals, especially in the crisis ridden 1890's (Bordo and Eichengreen 1999). The classic financial crisis of the era was the Barings crisis of 1890 which began with a debt default in Argentina and spread like wildfire to the rest of the emerging world. Lenders in London and Paris cut off capital flows to emerging countries like Brazil (Triner and Wandschneider 2005) with fundamentals similar to those of Argentina, while other countries deemed sound such as Canada were only marginally effected (Bordo and Murshid 2000). Thus the emerging market crisis problem had historical precedents. Most of the countries affected, those of Latin America and Southern Europe, lacked the fundamentals i.e. institutions and policies, associated with the more successful recipients.

Although the imbalances of the previous age of globalization has considerable resonance for today - - especially the fact that both eras were characterized by stable meta regimes - - the gold standard then and the adherence by many countries today to credible domestic nominal anchors such as inflation targeting and norms for fiscal balance, there are also considerable differences. First, under the gold standard, countries of new settlement—the emerging markets of the time—ran current account deficits while the major European economies ran surpluses. In the current era, major economies as well as emerging markets can run both persistent deficits or surpluses.

Second, gross capital flows are much larger today and gross asset and liability positions were very close to net positions before 1914, in contrast to today where most major industrial countries are both major creditors and debtors. The earlier pattern reflects the prevalence of long-term investment by the core countries in the countries of new settlement. The substantial growth of two-way flows between advanced countries since 1980 have been associated with both international financial diversification and intertemporal consumption smoothing.

Third, the adjustment mechanism is different. The historical record shows that adjustment to the significant and persistent external imbalances in the pre-1914 era occurred largely through the Humean price-specie-flow mechanism of the classical gold standard. In contrast, the global economy is now on a managed floating exchange rate regime and instead of gold flows, the brunt of the external adjustment occurs through changes in the exchange rate and international reserves, along with relative price movements, short-term capital flows, and valuation effects (Obstfeld, 2004).

Finally in the pre 1914 era, Great Britain was the dominant country. Its currency the pound, served as the international medium of exchange and as a key reserve asset. Great Britain ran considerable current account surpluses throughout the period. By contrast, the U.S. is the dominant economy today and the dollar is the key currency. However the U.S. has been running persistent current account deficits.

#### **4. Further lessons from history: Some Bad Outcomes**

History also gives three other not so rosy scenarios of global imbalances and how they were adjusted too: the interwar gold exchange standard, the Bretton Woods system and the 1977-79 dollar crises.

##### The Interwar

World War I ended the classical gold standard as all of the belligerents except the US abandoned gold convertibility. Private capital flows also ceased. After the war, by 1926, the major countries returned to a variant of the gold standard, the gold exchange standard in which members held most of their international reserves in dollars, sterling, and francs and the US, Great Britain and France held gold.

But the interwar gold standard had serious flaws which prevented smooth adjustments to the imbalances that built up (Meltzer 2003, Eichengreen 1992). The key problem was that the major countries returned to gold at misaligned real exchange rates. All the belligerents had serious inflations during the war and the restoration of the original gold parities involved deflation and recession. As it turned out Britain restored parity at \$4.86 with an overvalued real exchange rate while France and Germany each greatly devalued their currencies and restored parities at undervalued real levels (see figure 7). The U.S. never left the gold standard but U.S. prices did not return to the prewar level so that its real exchange rate was also undervalued. This misalignment meant that the U.S., France and Germany tended to run current account surpluses while Britain, and its empire and countries economically linked to it, ran deficits. Under the gold standard, this meant that gold tended to flow towards the surplus countries. Also under the gold standard rules, both creditors and debtors were supposed to adjust to the

imbalances: creditors by allowing domestic price levels to rise; debtors by deflation. As it turned out both the U.S. and France continuously sterilized their gold flows and prevented adjustment (Meltzer 2003). As a consequence they imposed deflationary pressure on Britain and on the rest of the world.

Another important difference between the classical and interwar gold standards that impaired the adjustment mechanism in the latter, was the lack of credibility in the member countries' adherence to gold convertibility. Unlike in the earlier period, markets had limited confidence that countries would always put external balance considerations before domestic policy concerns (Eichengreen 1992). This meant that short-term capital movements could be destabilizing. In the end the system collapsed after 1929 in the face of the Great Depression. Speculative attacks against countries that used expansionary monetary policy to alleviate banking panics and to stabilize the real economy, forced country after country to abandon the gold standard (Eichengreen 1992). This was not the case for the U.S. however, it had adequate gold reserves to withstand speculative attacks (Bordo, Choudhri and Schwartz 2002). The U.S. left the gold standard in 1933 as part of Roosevelt's policy package to reflate the U.S. economy (Meltzer 2003).

### Bretton Woods

Under the post world war II Bretton Woods system, a distant variant of the gold standard, the U.S. was the dominant country, with the largest gold reserves (Bordo 1993). Under Bretton Woods rules, the U.S. had to peg the dollar to gold at \$35.00 per ounce and the rest of the world pegged to the dollar. The rest of the world used dollars as

international reserves and the dollar served as the international medium of exchange. The U.S. was also supposed to follow stable monetary and fiscal policies.

During the period 1959-1971, when the system fully operated (most members had current account convertibility), the U.S. ran persistent current account and trade surpluses and also engaged in considerable foreign investment. The overall balance of payments was generally in deficit and the rest of the world absorbed dollar claims (see figure 8). At the same time it is argued that the principal continental European countries and Japan kept their real exchange rates deliberately undervalued in order to foster export driven growth in their economies (Dooley et al 2002). This policy meant that they kept accumulating dollars which as did the U.S. and France in the interwar, they sterilized. It has been argued that during this period the U.S. acted as financial intermediary to the rest of the world, importing short-term capital (dollar claims) and exporting long-term capital (McKinnon 1969).

From 1961 to 1967, Europe and Japan's holding of dollar claims convertible into gold kept increasing relative to gold holdings in the U.S. suggesting the possibility of a run on the dollar (see figure 9).

McKinnon (1969), Meltzer (1991) and others have argued that the system could have continued for an extended period as a de facto dollar standard. However two factors led to the collapse of the Bretton Woods system. First the French resented the U.S. 'exorbitant privilege' of not having to adjust to its payments imbalances because it was the principal reserve country. They wanted a return to a pure gold standard and to facilitate this outcome they converted their outstanding dollar claims into gold. Second

the U.S. began following inflationary monetary and fiscal policies beginning in 1965 - - to finance the Vietnam War and the Great Society.

The expansionary policies increased both the U.S. payments deficit and European central bank reserves as the U.S. exported its inflation abroad. As a consequence the Europeans begin converting their dollar claims into gold, threatening U.S. gold reserves. The system collapsed when Richard Nixon closed the gold window in August 1971.

It has been argued that a reincarnated Bretton Woods system exists today. China, possibly India and other countries are seen as deliberately running an undervalued peg against the dollar to encourage export driven growth the way Europe and Japan did 40 years ago (Dooley et al 2002). The central banks of these countries willingly accumulate dollar assets consequent upon their current account surpluses. Dooley et al argue that such a relationship could persist for as long as a decade to allow China to absorb its 200 million surplus agricultural workers into the manufacturing sector.

Others argue that unlike Bretton Woods, the reincarnated system will not last for 10 years but will collapse much sooner because, unlike the Europeans in the 1960's Asian central banks do not have a stable cartel (Eichengreen 2004). Furthermore, in the Bretton woods era there were no good substitutes for the dollar as the world's reserve asset (the pound was a reserve asset but it was weak) but today we have the euro. They predict the system will collapse quickly.

## The U.S. 1977-1979

After the Bretton Woods regime finally collapsed in 1973, the major countries of the world shifted to managed floating exchange rates. Countries used exchange market intervention to both smooth disorderly markets, and as a residual from Bretton Woods, to maintain what were perceived to be equilibrium exchange rates. The 1970's was also the decade with the highest peacetime inflation rates in U.S. history. Inflation which began in the mid 60's, did not abate. A similar pattern occurred in most other countries with the principal exception of Germany and Switzerland. Rising inflation (see Figure 10) was fueled by monetary growth (see figure 11). There is considerable debate over the causes of the Great Inflation: explanations include a mistaken belief in the Phillips curve tradeoff; basing policy on the wrong indicators of monetary policy; and errors in the data central bank used.

Two oil price shocks in 1973 and 1979 were also said to have contributed heavily to the upward trend in inflation, although some have argued that the OPEC oil price hikes were an endogenous response to prior inflation (Barsky and Kilian 2004). The U.S., the U.K., Canada and others used expansionary monetary policy to prevent the shocks from reducing output and employment, Germany and Switzerland did not accommodate the oil shocks, Japan accommodated the first but not the second. These countries had lower inflation than the U.S. ,U.K. and Canada.

Between 1975 and 1977, the  $\$/\text{Dm}$  and  $\$/\text{¥}$  traded in a narrow range (see figure 12), then in the fall of 1977 the dollar began a rapid depreciation which continued into 1978. At the same time the U.S. was running ever larger current account deficits while

Germany (also Switzerland) and Japan were running significant surpluses (see figure 13). According to Solomon (1982) the imbalances triggered capital flight from the U.S. which made things worse. The flight was triggered by concerns over the effectiveness of the Carter administration and the belief that the U.S. was following a policy of “benign neglect.”

The Europeans blamed the U.S. for encouraging the depreciation of the dollar to gain competitive advantage and for destabilizing their economies. The U.S. criticized the Europeans and Japan for not dealing with their surpluses. Intervention by the Federal Reserve and the Treasury in January 1978 was viewed by Solomon (1982, p. 347) as ineffective and beginning in the late spring of 1978, the dollar fell “at a disorderly rate.” The Fed then reacted by raising the discount rate to 8% in late September and the Carter administration promised to trim the fiscal deficit. The dollar continued to fall.

Then in a speech given on October 24, 1978 Carter proposed an anti inflation package with tighter monetary and fiscal policy; voluntary wage, price controls and regulatory reform to improve competitiveness. According to Solomon, the dollar strengthened by close to 2% against the DM. Carter’s speech was soon followed by a rescue package put together by the Treasury and the Fed. It included : \$30 billion to defend the dollar via an IMF drawing; increased swap lines and the issuance of \$10 billion in Carter bonds (U.S. securities denominated in foreign currencies); Treasury gold sales; and the Fed raising the discount rate to 9.5% and establishing a supplementary reserve requirement of 2% against large time deposits.

In response to this package the dollar appreciated 7% against the DM and 5% against the yen. According to Solomon (1982, p. 350) the package led to the end of belief in the 'benign neglect' doctrine.

In the summer of 1979, the dollar resumed its decline, attributed by Solomon to the trouble the Carter administration was having in handling recession, continued inflation, the second oil price shock and the Iran hostage crisis. In July Paul Volcker replaced G. William Miller as chairman of the Federal Reserve Board. The inflation rate kept rising, reaching double digit figures in September 1979. On October 8, Volcker announced his famous "shock" involving a rise in the discount rate to 12%, an increase in reserve requirements, and a change in operating procedure away from targeting the federal funds rate towards a non borrowed reserves aggregate. Following that announcement the pressure on the dollar eased.

Compared to the present period the imbalances of 1977-1979 may seem small, at less than 2% of GDP, but the underlying problems were far more serious. They reflected bad monetary policy in the U.S. which created the Great Inflation. The depreciating dollar just reflected the poor record of inflation and recession and the expectation that monetary policy would not improve. In that sense the adjustment well reflected the underlying fundamentals.

## **5. Conclusion: What will happen?**

We have illustrated four historical episodes of external imbalances and their adjustment. The first worked remarkably well. Two ended in a collapse of the

international monetary regime. The fourth led to a fundamental change in the monetary regime. Which episode is more relevant to today's environment ?

My bet is a benign outcome like that of the pre war gold standard era. In today's world the underlying fundamental of globalization and the basic strength of the U.S. economy which will continue to underpin the dollar as a reserve asset, suggest that adjustment to the present set of imbalances will be gradual and when all is said and done the experience will be viewed as similar to what happened in the late 1980's.

What is the case for international monetary reform? The interwar and Bretton Woods debacles both reflected the collapse of regimes with fundamental flaws and the pursuit of inappropriate policies by the major countries. The 1970's U.S. experience reflected a failure in domestic monetary policy and had little to do with problems in the international monetary framework being followed. The reaction to the 1970s experiences and to later large swings in the major country's exchange rates led to a concerted move by the G-7 countries towards policy coordination of which the most well known examples were the Plaza (1985) and Louvre (1987) accords. Subsequent research has concluded that these efforts were not very successful. To the extent that the situation today is not too dissimilar to the earlier episodes in the 1980's the case for coordination does not seem evident. Moreover calls for a reinvented Bretton Woods System given the inherent flaws the last time and its sorry experience if heeded, will no doubt lead to the same outcome.

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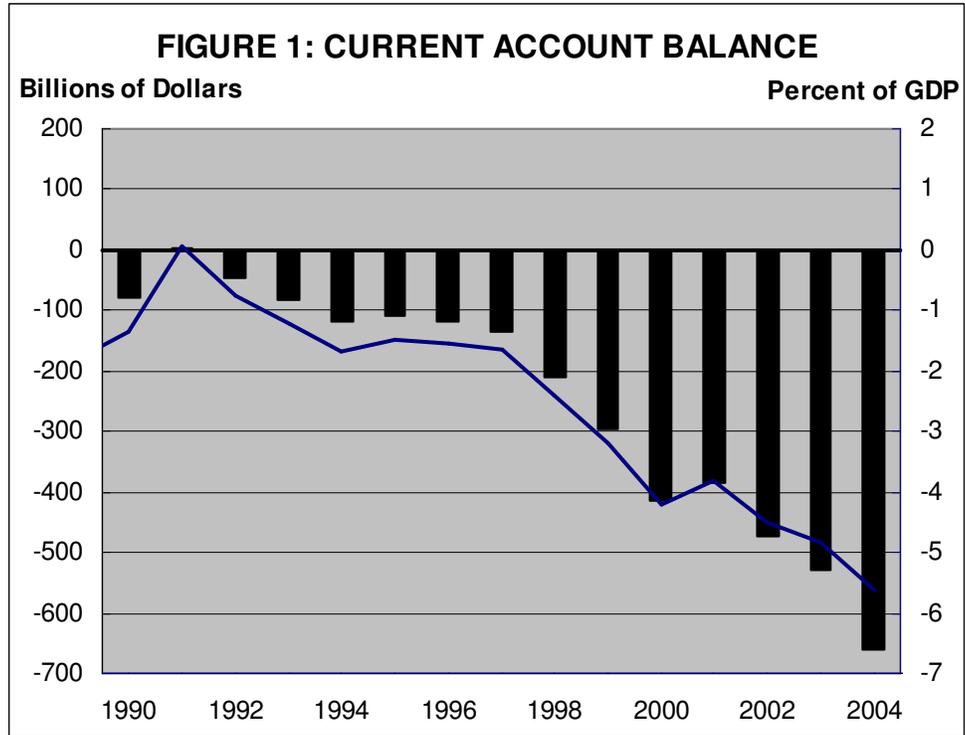
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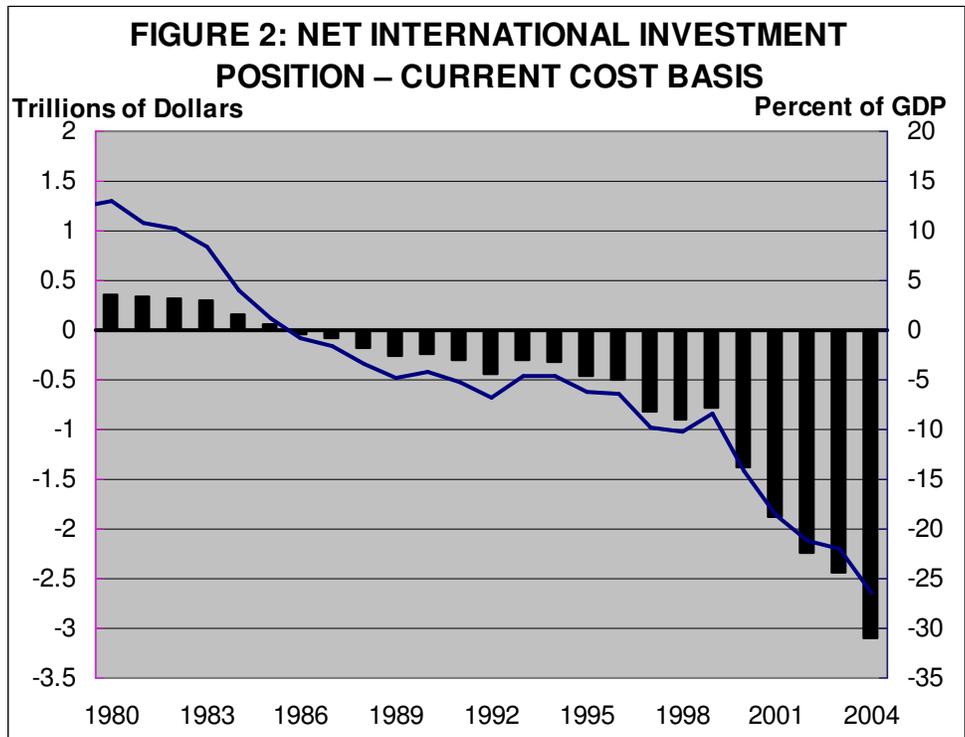
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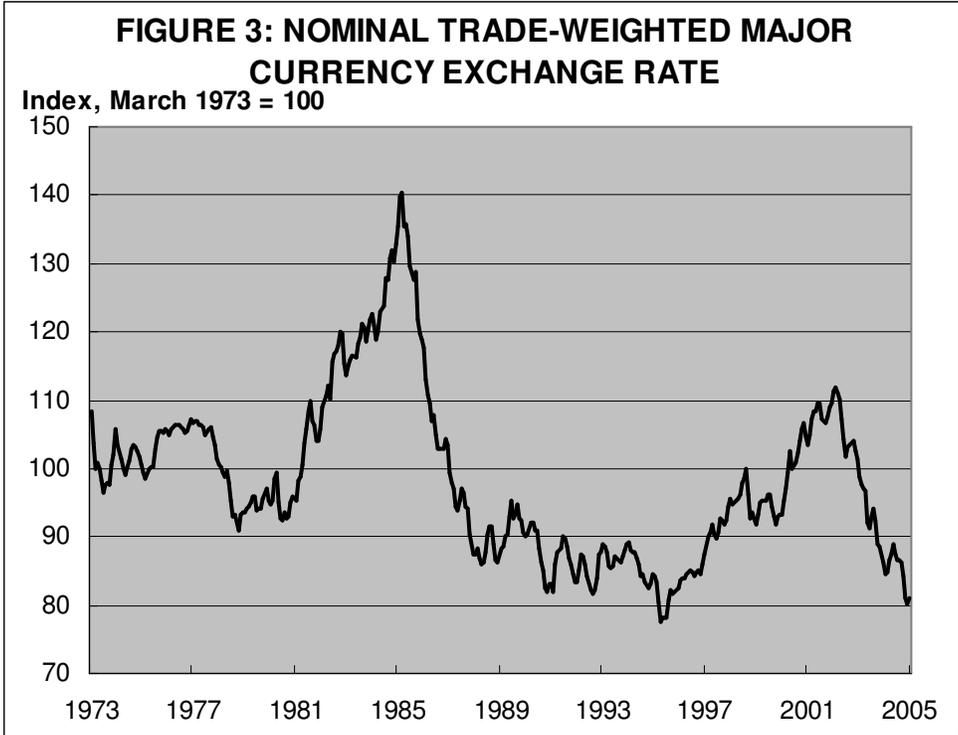
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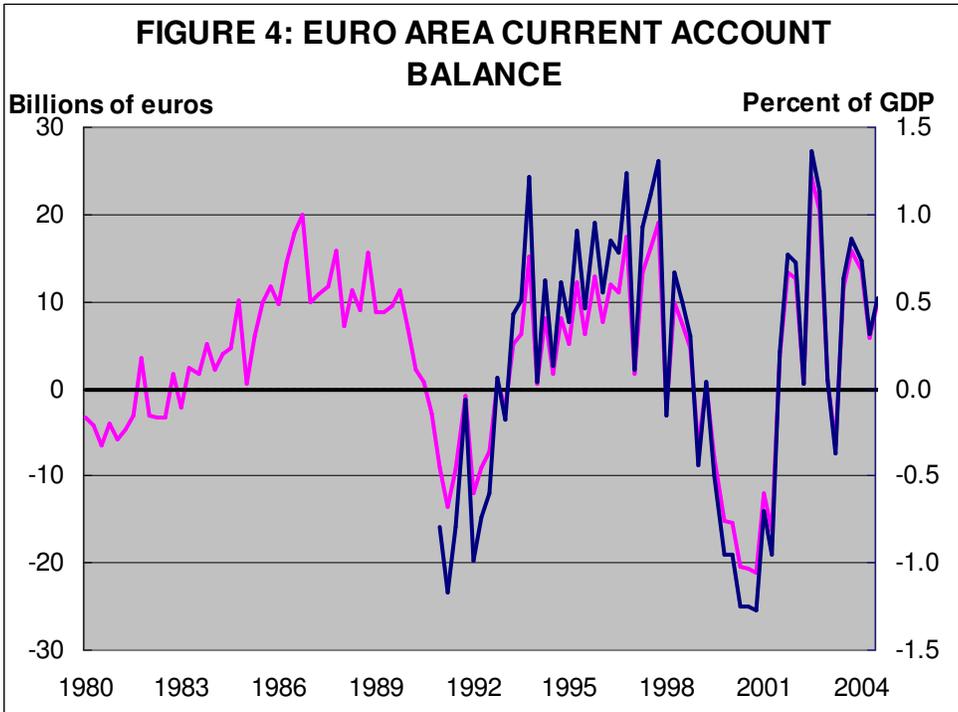
Source: Federal Reserve Bank of Cleveland



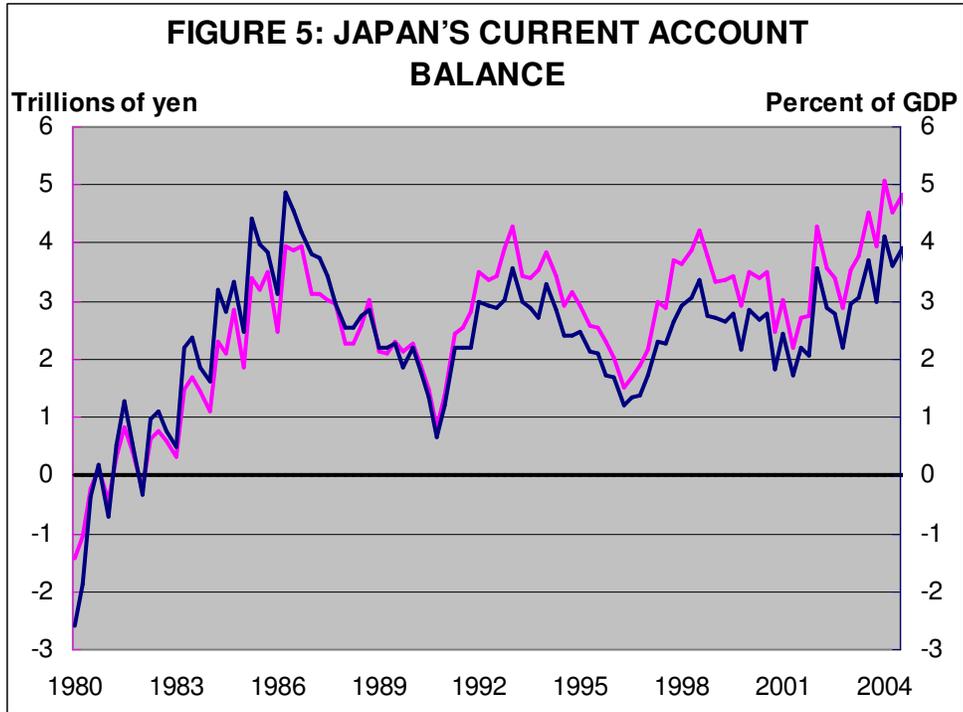
Source: Federal Reserve Bank of Cleveland



Source: Federal Reserve Bank of Cleveland

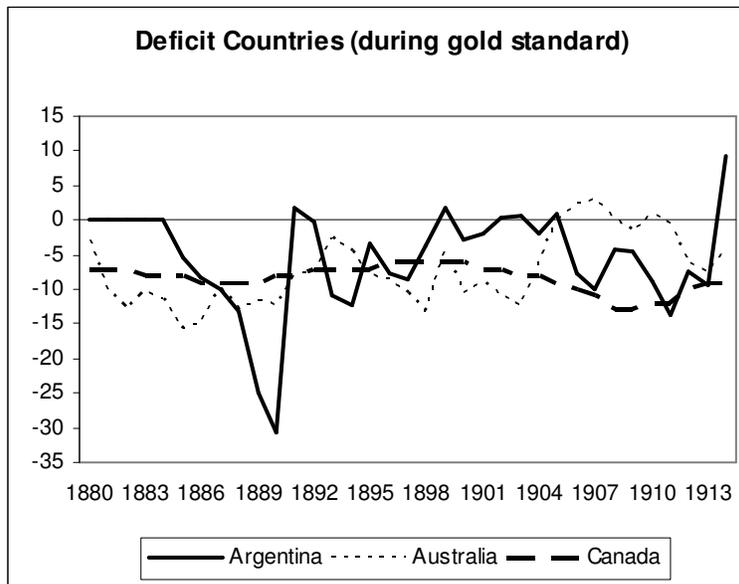
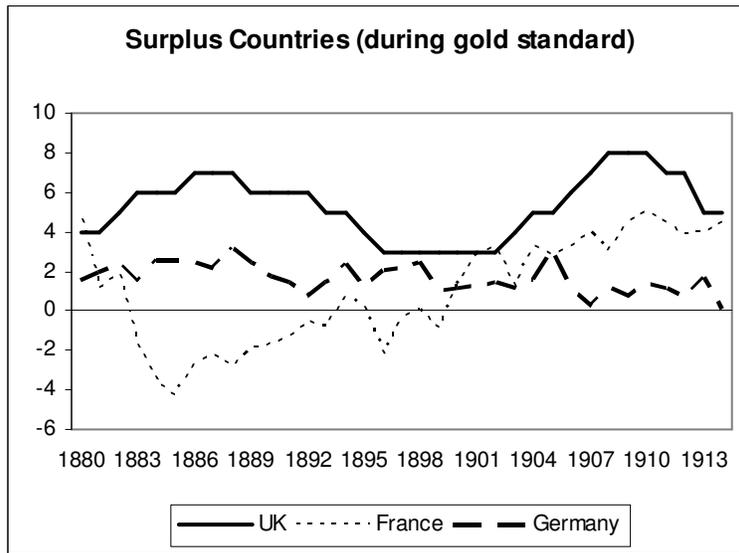


Source: Federal Reserve Bank of Cleveland

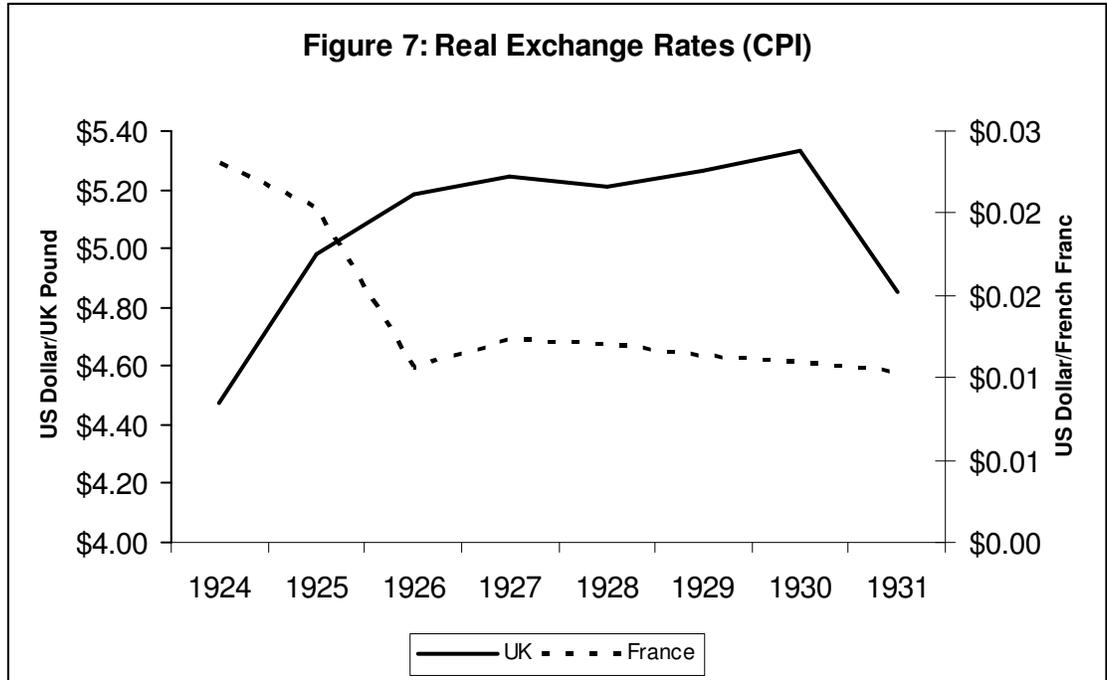


Source: Federal Reserve Bank of Cleveland

**Figure 6: Current Account Balances (Percent of GDP)**



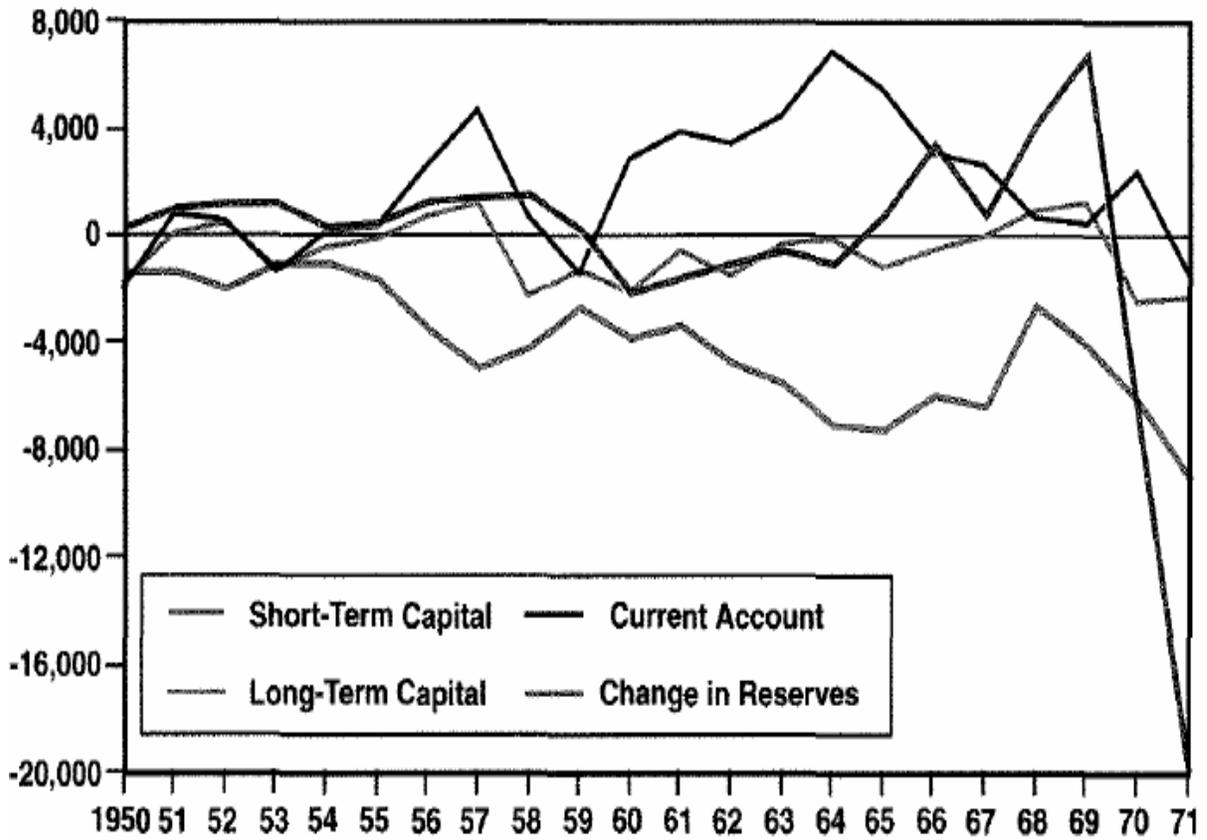
Source: Obstfeld and Taylor (2003)



The Dollar-Pound parity in 1925 was \$4.86 and the Dollar-Franc parity in 1927 was \$0.0392.

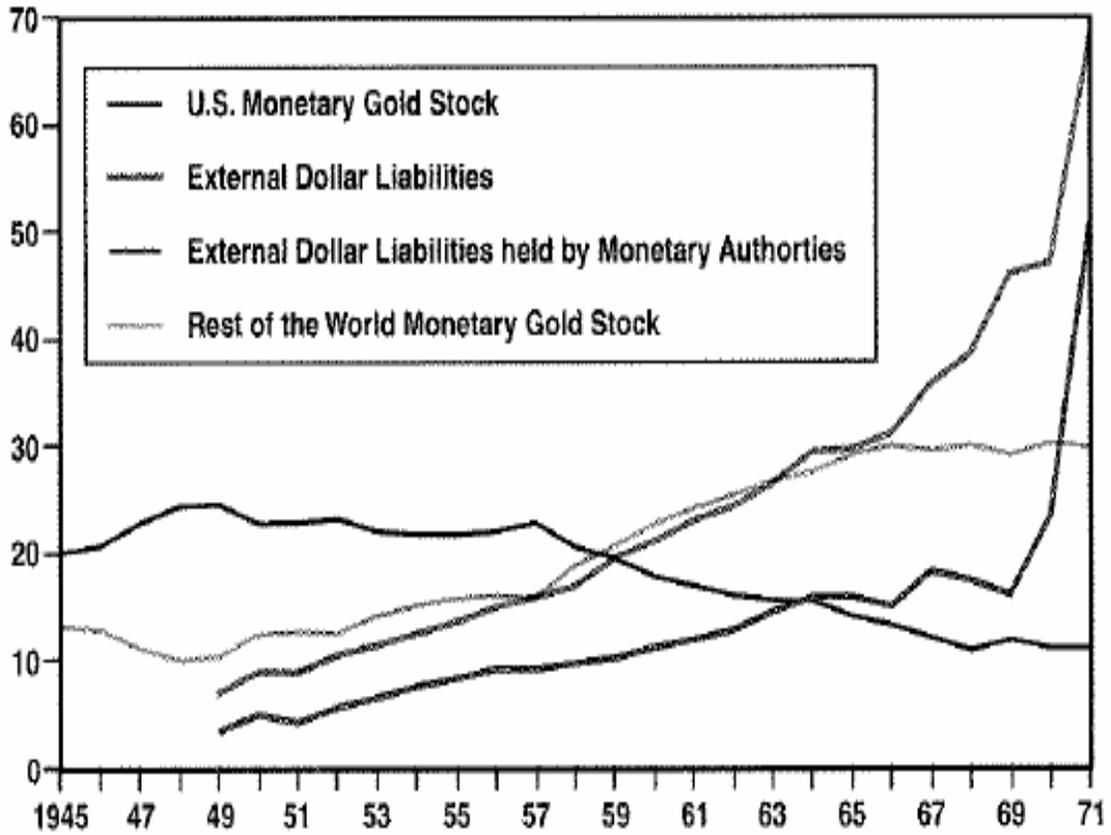
Source: Bordo et al (2001)

Figure 8: Balance of Payments: United States, 1950-1 971 Millions of U.S. dollars

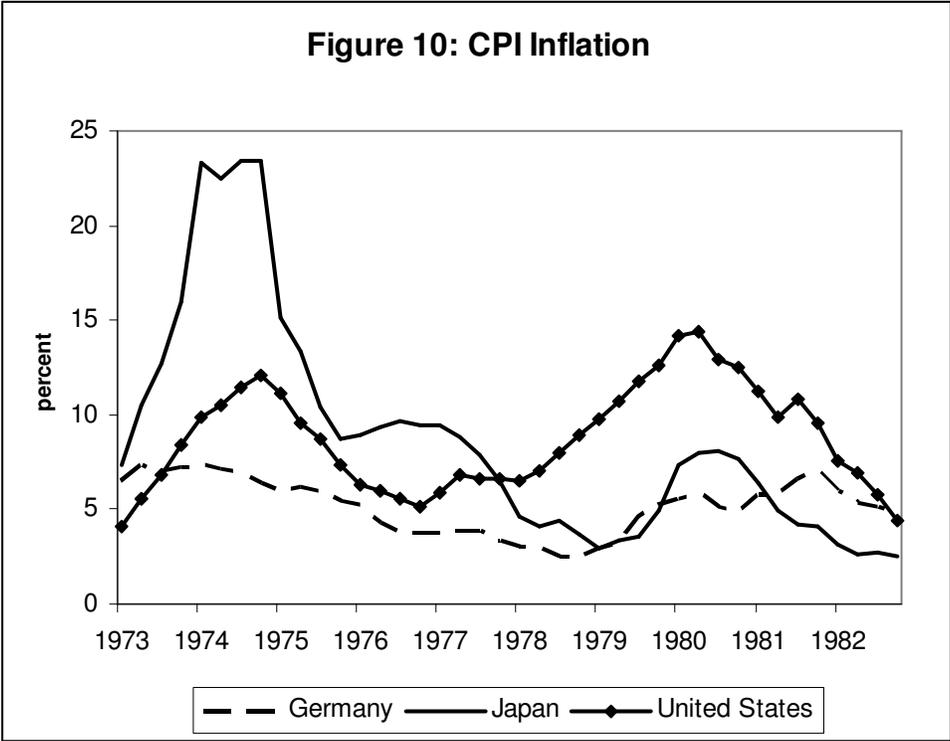


Source: Bordo (1993).

**Figure 9: Monetary Gold and Dollar Holdings: the United States and the Rest of the World, 1945-1971 (Billions of U.S. dollars)**



Source: Bordo (1993).



Sources: International Monetary Fund, Deutsche Bundesbank, Bureau of Labor Statistics

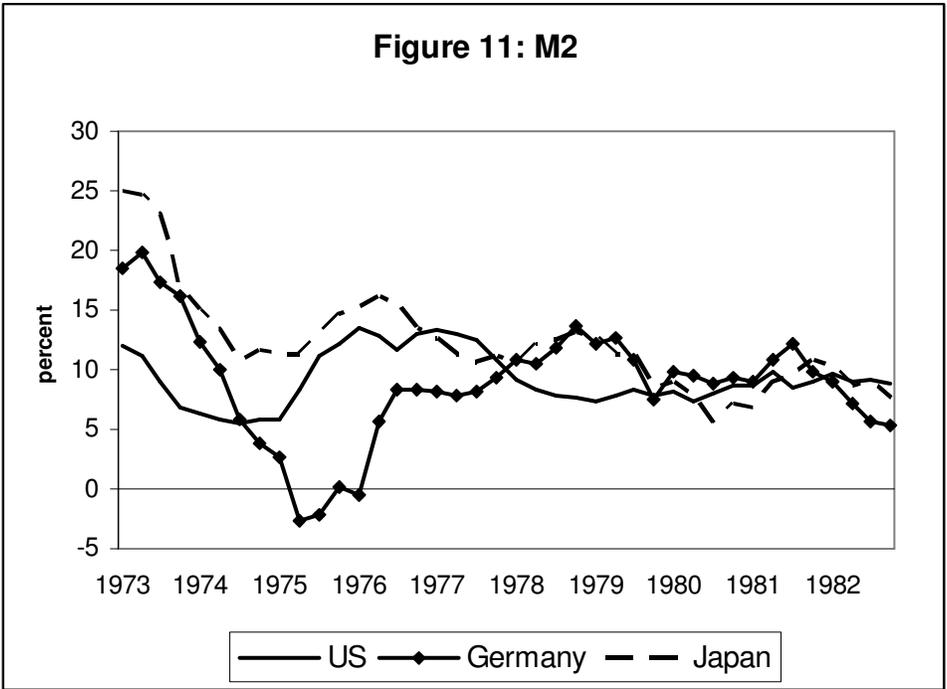
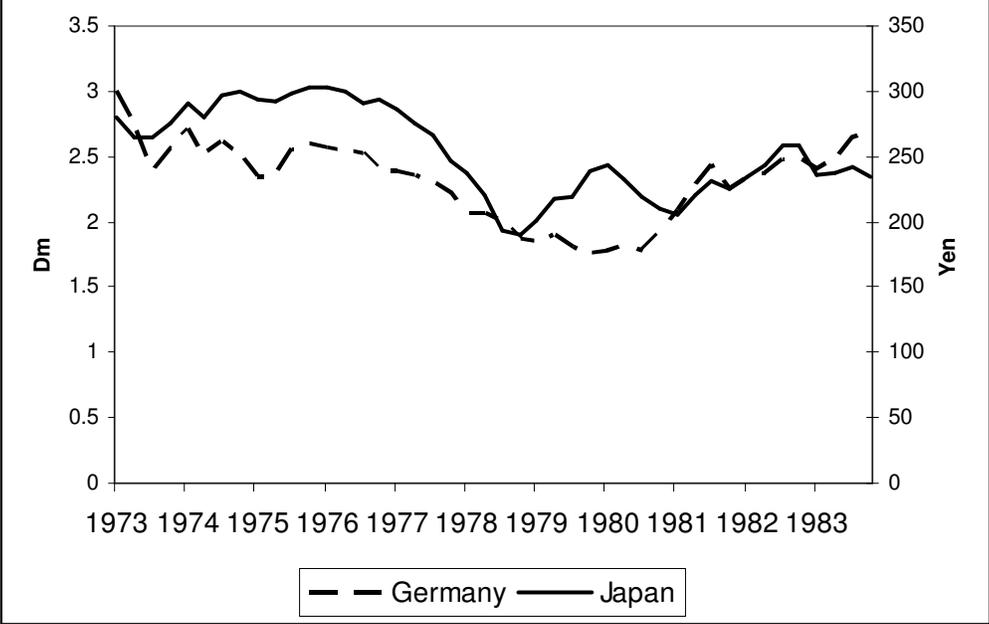
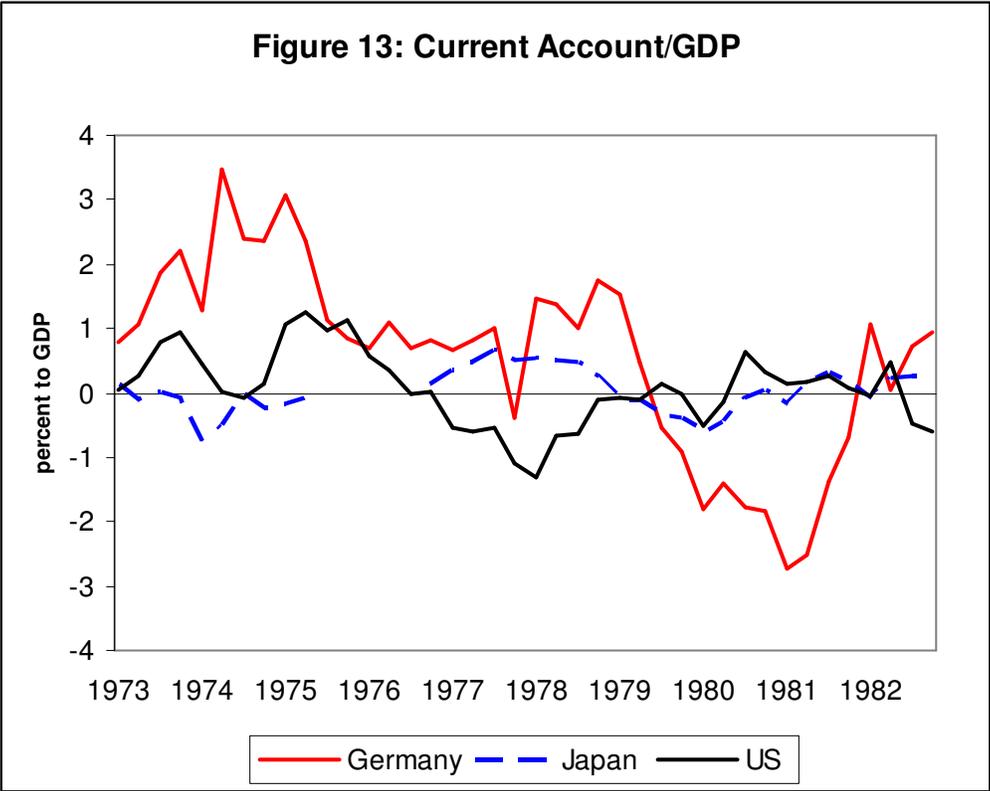


Figure 12: Exchange Rates



Source: Federal Reserve Board



Note: Japanese data from 1975 Q3 to 1976 Q4 unavailable  
 Sources: International Monetary Fund, Deutsche Bundesbank, Bureau of Economic Analysis, Federal Reserve Board