

THE RESOLUTION OF GLOBAL IMBALANCES: Soft Landing in the North, Sudden Stop in Emerging Markets?

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I. Introduction

A plane in flight is an eminently “unsustainable” object: sooner or later it has to land. Years ago, crashes were alarmingly frequent, so it was hard to fault Aunt Agatha for believing that any flying plane was an accident waiting to happen. Today, of course, her concerns are brushed off by her younger relatives with a condescending smile. Technological advances ensure that the majority of landings are smooth. Global Imbalances (i.e., large and persistent US current account deficits, henceforth CADs) are the topic of this note and their inherently unsustainable nature has prompted observers to borrow aeronautical terms to catalog possible denouements as Soft or Hard Landings (or Crashes). Present imbalances are large by historical standards and, in many instances, large imbalances have not had happy endings. Thus, we find ourselves in Aunt Agatha’s shoes, worrying whether the present episode will end up very badly. But, are Aunt Agatha’s concerns justified? Could it be that the US is so unique that a dramatic cut in capital inflows into the US, a Sudden Stop, is very unlikely—and, therefore, that the only

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plausible resolution of present imbalances is a Soft Landing, like most airplanes nowadays traversing the skies?

Looking at capital markets in the last 15 to 20 years we cannot help sharing Aunt Agatha's concerns. Emerging Market economies, EMs, provide plenty of examples in which Sudden Stops in the presence of large CADs end up in a crash. However, most of the dramatic episodes have been associated with imperfections in global capital markets for EMs stemming from financial frictions and EM financial vulnerabilities (e.g., regulatory constraints, margin calls, Liability Dollarization, imperfect information and contagion).¹ It is not easy to find examples in which a large drop in output and employment is simply the result of overspending. Thus, we believe that the imbalances themselves are not a sufficient statistic for predicting an imminent crash. There must be something else. Finding little else to worry about in the US but a lot to concern us in EMs, drives us to give an affirmative answer to the question in the subtitle of this note.

Having stated our beliefs, we will now summarize how we will try to persuade the reader that the US is likely to adjust in an orderly manner, while EMs may encounter serious turbulence and exhibit Sudden Stop episodes. To help clear up the air, Section II will discuss one central fallacy that stands in the way of rightly assessing the situation. According to this fallacy, if Rest of the World (ROW) central banks, more specifically, China and other Asian central banks, stop accumulating US public debt instruments, the dollar will plummet and interest rates will go through the roof. Section III, in turn, will pick up what we think is the central issue at hand, namely, the allocation of world saving and investment, and the possibility of *accidents* in the capital market that may result in Aunt Agatha's worst fears, especially for EMs. Section IV concludes.

¹ See for example Calvo (2006) .

Section II. A Central Fallacy

The view that if Asian central banks stop buying US public debt, hell breaks loose, has wide appeal and has been eloquently expressed by Paul Krugman in a recent *New York Times* column:

“ Dollar purchases by China and other foreign governments have temporarily insulated the US economy from the effects of huge budget deficits. This money flowing in from abroad has kept US interest rates low despite the enormous borrowing required to cover the budget deficit. (...) When China changes its current policy and those cheap loans are no longer available, US interest rates will rise; the housing bubble will probably burst; construction employment and consumer spending will both fall; falling home prices may lead to a wave of bankruptcies (...) In other words, we’ve developed an addiction to Chinese dollar purchases, and will suffer painful withdrawal symptoms when they come to an end”.²

As shown in Figure 1, in recent years Asian central banks have in fact revealed a voracious appetite for US public debt. The accumulation of international reserves denominated in US dollars by foreign central banks has accelerated significantly, increasing from \$83 billion in 2001 to \$500 billion in 2004. Most of this accumulation was conducted by Asian central banks.

There may be several reasons for this. In the case of China, the central bank is aware that according to WTO rules, China will soon have to liberalize the banking sector, a risky policy given the weakness of China’s banking system. Chinese banks have been

² See Krugman (2005).

the instruments through which savings were channeled to bankrupt State-Owned Enterprises. As a result, banks are loaded with bad loans, a situation that may lead to serious financial turmoil as bank liberalization takes place. Thus, it makes a lot of sense for China's central bank to accumulate resources (e.g., international reserves) to capitalize or bail out weak banks. For the rest of Emerging Market Asia the situation is somewhat, but not completely, different. The 1997 crisis taught them that they could be subject to Sudden Stops despite their impressive economic performance. They fear that calling the IMF doctor may make things worse. Thus, they have opted for self-insurance, building up an impressive armor of international reserves.

This voracious appetite by Asian central banks for US dollar-denominated international reserves, has significantly changed the composition of financing of the US CAD. As illustrated in Figure 2, official financing of the US current account, i.e., the share of the US CAD “financed” by the accumulation of US dollar assets by foreign central banks, increased from less than 20 percent in 2001 to 75 percent in 2004. Thus, the question arises, will Asia's central banks continue accumulating reserves at the rate required to finance the large US CAD? What if they don't? Or, what if Asian central banks continue to accumulate international reserves but change the composition, dumping dollar for another hard-currency-denominated public debt obligations?³ As noted, *prima facie* central banks are major financiers of US profligacy. Thus, at first blush, losing this “official” credit line should be a major blow to the US economy, right? Wrong.

³ Korea announced it would start doing that a couple of times, making headlines in the financial press (although, it must be recalled, little else).

When a central bank buys international reserves, it typically does one of two things: (1) it issues high-powered money, i.e., resorts to *seigniorage*, or (2) it increases its debt—directly by issuing central bank bonds, e.g., CDs, or indirectly by selling from its stock of domestic public debt.⁴ Therefore, buying international reserves implies issuing non-interest-bearing money and interest-bearing domestic debt. If a central bank *stops accumulating* reserves (e.g., US dollar-denominated debt) it will simultaneously *stop issuing* interest-bearing domestic debt, since it is unlikely that the central bank will subordinate its monetary policy to the reserve accumulation objective. Consequently, this operation is tantamount to *changing the currency denomination of outstanding world public debt in private hands*.⁵ Thus, even in the extreme case in which a central bank completely ceases to intervene in the foreign exchange market, this brings about a change in composition, *not* a change in total world debt. Changing debt composition is a much less radical experiment than changing *levels*. Lowering world debt levels, for example, calls for lower expenditure in indebted countries, which may represent a serious economic disruption. Change in composition, in contrast, may merely call for a change in interest rates. If bonds are highly substitutable, then the corresponding change in interest rates need not be large to entice private investor to purchase US public debt directly rather than indirectly through Asian central banks. Actually, empirical studies on *sterilized intervention* suggest that this is the case, especially when major currencies are

⁴ Alternatively, international reserves could be purchased by the central bank with resources from fiscal surpluses by acquiring a liability with the Treasury, normally in the form of deposits by the Treasury at the central bank.

⁵ Abstracting from capital gains or losses.

involved.⁶ Thus, if Japan were to stop buying US debt instruments, the effect on US interest rates could be minimal.⁷

The situation may be different if Korea or China were to follow suit because their bonds could be claimed not to be close substitutes for hard-currency denominated bonds. Conceivably, that might change won or renminbi interest rates and the dollar/won or dollar/renminbi exchange rate, even if total world debt in private hands would remain unchanged.⁸ However, Asian countries have displayed very stable real exchange rates, and still appear to be reluctant to allow major currency appreciations. Since in the short run there is normally a close association between the real exchange rate and the current account, it follows that it is unlikely that Asian authorities will change their policy stance to induce a major deterioration in their current accounts. Hence, stopping the accumulation of US bonds by Asian central banks is likely to be accompanied by alternative policies that keep the net supply of saving to the rest of the world somewhat invariant (even in the face of currency appreciation), implying that the new policy stance is unlikely to have a sharp effect on US interest rates. This implication will not hold if Asian countries are willing to sustain large real currency appreciation without offsetting measures, a subject that will be tackled in the next section when we discuss the effects of sharp changes in world saving.

The above discussion assumes that Asian central banks stop buying international reserves altogether. However, that is probably too extreme. As noted, doing so might have major consequences on the real exchange rate. Thus, more likely Asian central

⁶ For a dissenting view see Dominguez and Frankel (1993).

⁷ According to preliminary figures, international reserve accumulation by foreign central banks decelerated significantly in 2005. The slack was covered by private flows to the US without major changes in long-term interest rates, appearing to validate our conjecture.

⁸ Abstracting from capital gains.

banks will merely change the composition of their hard-currency international reserves. In that case, their own debt will remain unchanged and there will only be a change in composition in hard-currency debt instruments, which, as noted above, should not have a major impact on US interest rates.

III. Saving, Investment and Financial Accidents

The key to the question of how global imbalances will unwind and who will pay the price must address the question of how likely it is that the availability of net saving in the ROW shrinks, and whether it may do so abruptly. To shed some light on this issue, let us consider how the ROW did adjust to the emergence of large CADs in the US. The deterioration in the CA position of the US between 1997 and 2005 amounted to \$665 billion or 5 percent of GDP in the US. Since the world current accounts must add up to zero, the CA of the ROW must have moved into surplus by an equivalent amount during the same period.⁹ Figure 3 shows which countries experienced the largest shifts towards surplus in their CA positions during this period. Actually, EMs were the ones who saw a sharp improvement in their overall current account position and not industrial countries, whose overall current account position deteriorated slightly during this period.¹⁰ Therefore, the flip side of the coin of the shift towards CAD in the US, was the shift towards surplus in the CA position of emerging market economies and no emerging region was exempted from this shift: the turnaround in the CA position in the Asian countries (excluding Japan) represented 35 percent of the shift of opposite sign in the US

⁹ CA statistics are subject to errors and omissions, implying that the sum of world CAs do not sum to zero. However, this statistical discrepancy is not quantitatively important for the analysis that follows.

¹⁰ However, individual countries such as France, Italy and Spain saw shifts toward deficit in their CA positions of similar magnitude as the US shift (as shares of their corresponding GDPs), while other countries such as Germany and Japan, moved towards either a smaller CAD or a higher surplus, respectively.

between 1997 and 2005, while the turnaround in Middle Eastern countries, Latin America and Eastern Europe represented 26, 15 and 9 percent, respectively.

Bernanke (2005) argues, and we agree, that events since the mid-1990s, such as the series of financial crises in EMs and the sharp rise in oil prices, led to a significant change in the collective CA position of EMs. Thus, EMs as a group shifted from being large net (flow) borrowers to net (flow) lenders in world capital markets, leading to a global saving glut and a decline in US interest rates. There are two key facts in support of the interpretation that present imbalances in the US are partly a *consequence* of an exogenous (from the perspective of the US) expansion in the ROW supply of net saving (plotted against the interest rate on the US 10 year bond, for example). First, had the shock originated in the US we should have expected that the change in the CA position of the ROW be more evenly distributed across EMs and developed economies.¹¹ Second, this hypothesis is further supported by evidence showing that the decline in interest rates is not a US-specific phenomenon; rather, it is global in nature. Figure 4 shows that interest rates have declined in all G7 countries to levels not seen since the 1950s and 1960s.¹²

¹¹ Whether the global saving glut is induced by an increase in saving or a decline in investment (an investment drought) is not a relevant dimension for our analysis.

¹² With the exception of the 1970s when real interest rates were actually negative.

Therefore, the question arises, how likely is it that we will see a large and abrupt contraction in the net saving of EMs, the true underlying financiers of the US CA deterioration since 1997? As noted, the mere change in international reserve accumulation policies by Asian central banks will not necessarily have a major impact on the world saving/investment balance and on US interest rates. However, it is conceivable that Asian central banks may change their international reserves policies in such a way as to affect net saving, especially given the strong pressure that the US is putting on China to let its currency float in order to improve the US trade balance. Although improbable, China may stop intervening in the foreign exchange market and refrain from employing other policies to prevent the likely deterioration of its current account. This might be accompanied by a sharp real appreciation of the renminbi, which may trigger other Asian countries to follow suit.

Consider the case in which such a policy change results in an abrupt reversal of Asia's CA position back to the much lower 1997 levels. Who will bear the brunt of this policy change? Notice that, as shown in Figure 3 that would imply a CA reversal in Asia of about \$229 billion. Thus, if the US adjusted its CA correspondingly, the adjustment would be equivalent to about 2 percent of US GDP. This may conceivably result in a major impact on the US economy, and create a scenario where Krugman's worst fears might be validated. However, if, contrariwise, the adjustment had to be made by non-Asian EMs, then the adjustment would represent around a whopping 5 percent of their GDP. This adjustment would not be unprecedented, as shown by the EM highly disruptive crises in the 1990s. Thus, our conjecture is that, upon realizing that such a bleak scenario would not be unprecedented, investors would anticipate serious financial

turmoil in the most vulnerable EM countries and stage a flight to quality (not unlike the one associated with the 1998 Russian crisis).¹³ Thus, this may not call for a significant increase in interest rates on US treasuries, because flight to quality may help to fill the US financing gap. This irregular form of financing is likely to be accompanied by a new wave of Sudden Stops in EMs. Moreover, the impact of this shock might not be limited to EMs, other economies subject to financial vulnerabilities may also undergo Sudden Stops. Thus, the main point we wish to make here is that in the event of a sudden and large decline in world saving, the US is likely to make a smooth transition at the expense of other more financially vulnerable economies.

A recurrent concern in this debate is the possible implication that the above type of shock may have on the US real estate market. Since we feel that the resolution of global imbalances will result in a soft landing in the US, we do not think it will *per se* cause a meltdown of the US housing market. However, other factors, such as sheer mispricing, may bring about a major fall in US real estate prices. Although national averages give no clear signal that the assumption is right, mispricing could be the result of, for example, the expectation that current financial conditions will be permanent. Thus, even a mild change in expectations about the future prospects of the housing market may wake up households from their slumber and suddenly cut house bids. The collapse in housing prices would lead to an increase in US saving, thereby aggravating the global saving glut and risking generation of a global recession. Interestingly, this situation is likely to bring about *lower*, not higher interest rates. To prevent global recession the US could reverse its present increasingly tighter money policy stance or

¹³ One very important aspect of financial vulnerabilities in EMs that has been extensively documented is that, unlike the US, a large share of EM debt, both public and private, is denominated in foreign currency, see for example Calvo et al. (2004) and Eichengreen, Hausmann and Panizza (2005).

resort to openly expansionary fiscal policy. Welfare implications are likely to be negative but an Aunt Agatha-type crash should be avoidable.

A more serious situation would arise if the bursting of the real estate bubble provokes major financial distress and a sudden loss of confidence in financial institutions. In this case although world saving would most likely still increase, global liquidity might contract inducing a sharp rise in interest rates worldwide. This possibility can never be discounted, although it is less likely in the US where financial markets have become increasingly sophisticated, allowing banks to shed their risks.¹⁴ However, were the meltdown in real estate and/or the loss of confidence to spread to other markets with weaker financial systems, e.g. EMs, financial turmoil is more likely to take place, giving rise to flight to quality. Ugly as this would be, however, the situation would have little to do with global imbalances.

Are we too pessimistic with respect to EMs? After all, many observers take comfort in the fact that EMs display large CA surpluses and, as a result, they are net (flow) *lenders*, not net (flow) borrowers like during the Russian 1998 crisis.¹⁵ This is a good point but, even though EMs are likely in a stronger position now than in 1998, the existence of a costly Sudden Stop cannot be discounted. In the first place, a CA surplus does not rule out that $CA \text{ minus Debt Amortizations}$ is a negative number, implying that the economy depends on debt refinancing to avoid financial distress. Second, since the 1980s and for a large sample of Sudden Stops in EMs that occurred during periods of systemic financial turmoil—periods of skyrocketing EM bond spreads that affect

¹⁴ US banks, for example, have been able to shed a large share of their risks (partly motivated by Basle II) into the bond and derivatives markets. Proof of banks' resilience to large financial shocks is that during the dotcoms' meltdown no US bank filed for bankruptcy.

¹⁵ See for example, Eichengreen and Park (2006).

simultaneously a wide range of countries—about 18 percent of the cases took place under CA surplus, leading to even larger CA surpluses.¹⁶

IV. Final Words

In summary, we do not share the view that the current imbalances will end up in a worldwide crash. Rather, we would expect landing in the US to be *soft*, unless the US fails to adopt timely expansionary policies as imbalances begin to unravel. In addition, we have argued that while the US may gradually converge to a sustainable equilibrium, EMs are bound to suffer a series of Sudden Stops. However, it would be incorrect to attribute these Sudden Stops to global imbalances. Sudden Stops in EMs have occurred prior to the emergence of the current global imbalances, and appear to be a reflection of EMs' financial vulnerabilities. This outcome, where apparently unrelated events end up hitting EMs through their reverberations on international capital markets, would not be unprecedented, as the 1998 Russian crisis clearly illustrates.¹⁷ Yes, planes are much safer now, but not everywhere!

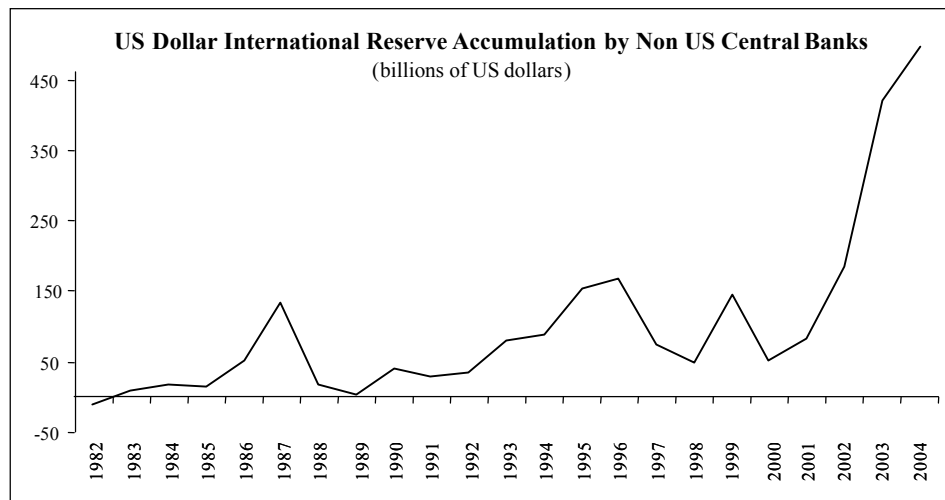
¹⁶ The sample is identical to the one used in Calvo *et al.* (2006).

¹⁷ For a discussion on how the Russian crisis spread to other EMs through its impact on central capital markets, see Calvo (2005).

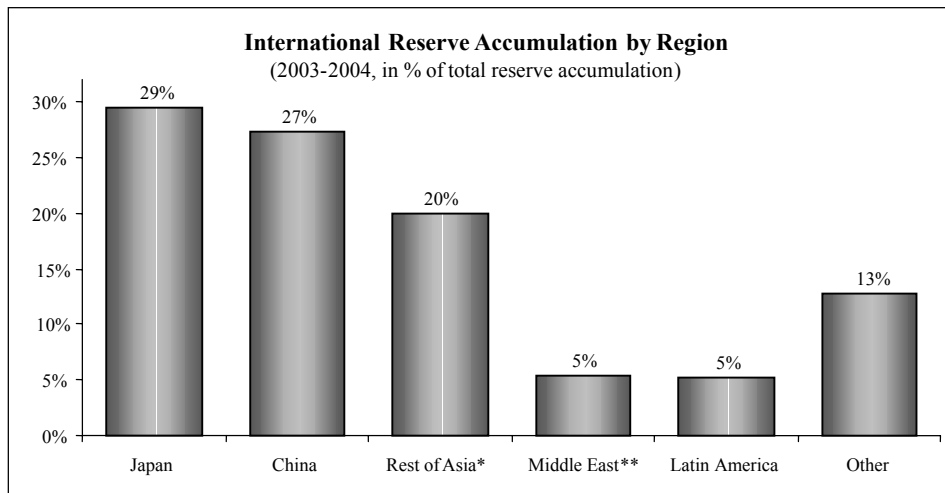
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Figure 1. International Reserve Accumulation



Source: BIS

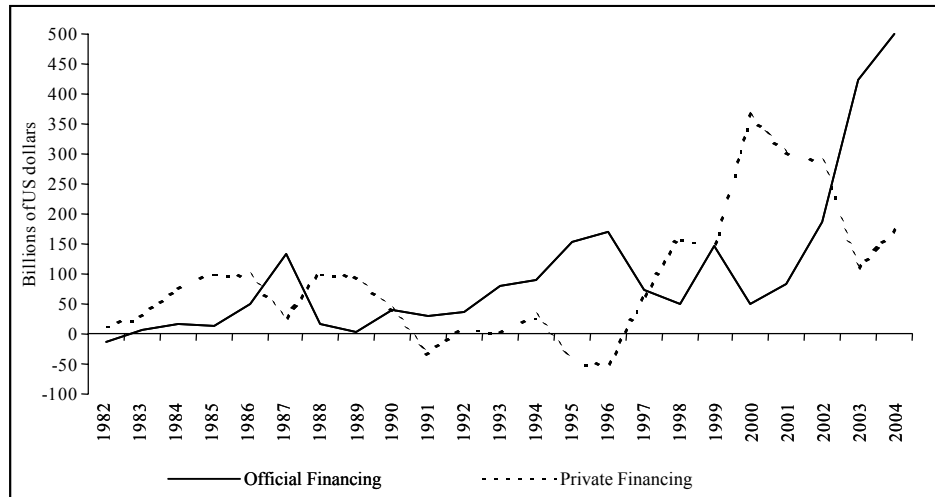


*Includes: Korea, Hong Kong, India, Indonesia, Malaysia, Philippines, Singapore, Taiwan and Thailand.

**Includes Oil Producers: Bahrain, Iran, Kuwait, Oman, Qatar, Saudi Arabia, Syria, United Arab Emirates and Yemen.

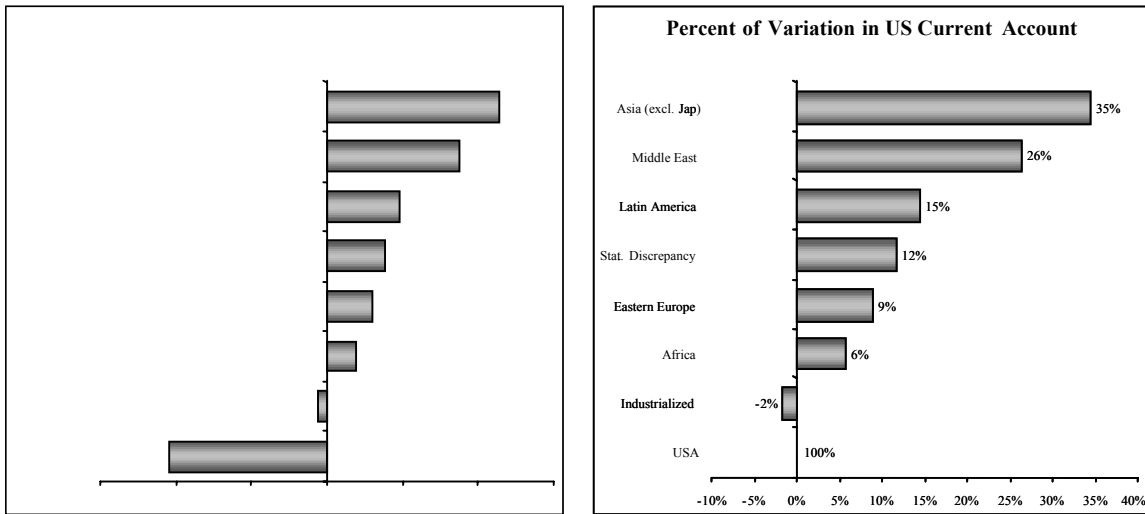
Source: WEO

Figure 2. US Current Account Financing



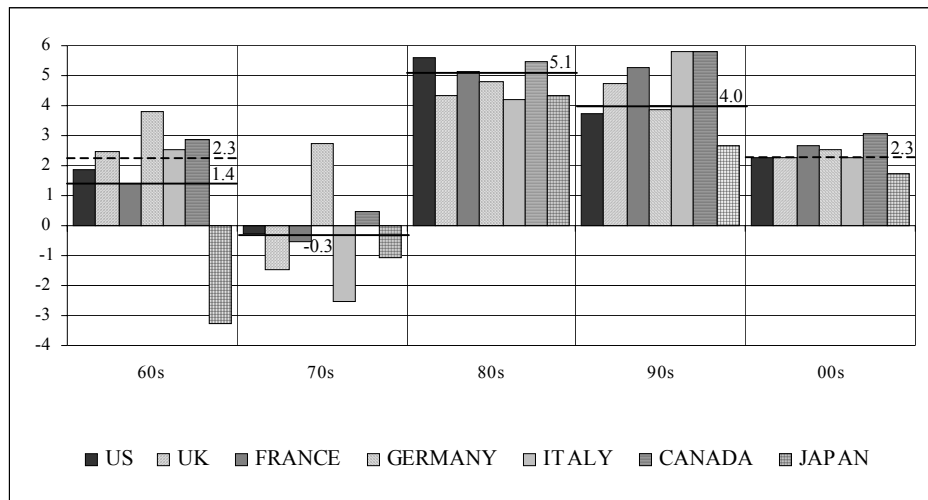
Source: BIS, BEA and own calculations

Figure 3. Global Current Account Adjustment



Source: WEO and own calculations

Figure 4. G-7 Interest Rates: A Long Term Perspective
(perfect foresight real ex-ante rates for long term instruments)



Source: IFS and own calculations