

# Do global imbalances matter?<sup>1</sup>

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## Introduction

The focus of this presentation will be on the so-called “global imbalances” and the underlying factors that might have produced them. In particular, consistent with the overall theme of this conference, I wish to assess the extent to which positive changes in productivity and competitiveness in the United States may have fostered deviations from traditional norms that, while large, are in fact likely to be more sustainable than some think. My assessment of the evidence is that this is not likely to be the case. I rather conclude, in association with an increasing number of others, that current global external imbalances will require correction over the long run. Moreover, since no one knows how long “the long run” is, these international imbalances have the potential to pose more immediate problems as well.

I would conclude, moreover, that the underlying factors explaining these external imbalances are closely linked to those explaining current manifestations of internal imbalances in a number of countries, in particular the United States and China. More broadly, in many industrial countries a combination of low inflation (largely arising from positive supply shocks), an increasingly deregulated financial system and highly accommodative monetary policy have led to asset price increases which have spurred domestic spending with an associated reduction in household saving rates. Some substantial part of this spending has spilled abroad. Moreover, prices in financial markets globally are showing clear signs of overstretch, as are the price of houses. In contrast, moves to deregulate the real sector in many emerging market economies, in association with an accommodative monetary policy designed to hold down the exchange rate, have led to a substantial increase in the capital stock. This phenomenon was observed in the early 1990s in South East Asia and Eastern Europe,<sup>2</sup> but has more recently been seen on an even bigger scale in China. Given continuing high domestic saving rates, often associated with uncertainties arising from the reform process itself, the production arising from the interaction of new capital and abundant labour is being increasingly marketed in the industrial countries.<sup>3</sup>

The implication of these conclusions is that the continued expansion of output in the global economy is threatened in a variety of interrelated ways. In particular, a potentially disorderly unwinding of external imbalances might interact with the internal imbalances in such a way as to aggravate contractionary

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<sup>2</sup> More accurately, this pattern was seen even earlier in Japan. The attempt to hold down the yen in the late 1980s through easy monetary policy led to a huge expansion in credit, asset prices and fixed investment. All three subsequently collapsed, leaving behind an overhang of both debt and fixed capital.

<sup>3</sup> The earlier literature on development economics suggests a somewhat different interpretation. Industrialisation requires large and costly fixed investment. High levels of demand are required to make such investments profitable and, in the early stages, exports provide such demand. Note that this does not require an ongoing net surplus. Indeed, the intention would be that domestic demand (and associated imports) would eventually kick into redress the balance.

tendencies on a global scale. While I have some views on possible policy options to mitigate these dangers, to preserve the order of the Agenda I will defer most of my comments until this afternoon. I will only say here that the integration of previously closed economies into the global trading process is fundamentally good for everyone. This implies that the burden of adjustment should perhaps fall more disproportionately on those with deficits than those with surpluses, particularly if the former are also beginning to show inflationary strains as well as growing exposure to indebtedness.

The basic analytical approach underlying the paper stresses the relationship between internal balances (or imbalances) and their external counterparts. It begins with recognition of the identity (assuming a two country world for simplicity) which ensures such a linkage.

$$(S-I)+(T-G)=(X-M)=CF= - [(X^*-M^*)=(S^*-I^*)+(T^*-G^*)]$$

The central point to note is that the external balance element reflects developments in the real economy in both countries, as well as capital flows (CF), and is thus highly endogenous. In looking for an explanation of external imbalances, there would not then seem to be much justification in pointing to only one component of the identity, and suggesting that its movements were driving all the others. Private sector capital flows into the United States and China, driven by optimism about future rates of return, can only be part of the explanation of what is going on. The same can be said for “high” savings rates in Asia and “low” savings rates in the United States. Moreover, all the variables in the identity are themselves subject to the influence of underlying variables, movements in exchange rates and interest rates and asset prices, most of which are themselves endogenous to the system. Finally, it is worth noting (in the BIS spirit of “procyclicality”) that the financial variables in turn are also capable of “overshooting” in various ways. Needless to say, these complicated layers of interdependence (real and financial, industrial countries and emerging market economies, correctly and incorrectly priced assets) make it almost impossible to provide accurate forecasts of future outcomes.

Having said about this identity that “all the animals are equal”, it must be admitted that “some of the animals are more equal than others”. The potential behaviour of two principal sets of market participants are key, since it is through markets that the prices of financial assets change with potential implications for the real economy. First, the conditions under which private sector participants will be willing to hold a growing volume of USD denominated liabilities must be assessed. In the modern world of almost infinitely elastic capital flows, expectations about the future value of the dollar are key. These expectations can be driven by many factors in the short run, but they must in the long run be mainly influenced by the evolution of the US external debt position. The second set of actors are the official sectors in countries, principally in Asia, that have shown a willingness to hold USD denominated assets in amounts hard to reconcile with both expected returns and the degree of self-insurance they might provide against future crises.

My comments will be in four parts. First, I give some consideration to the basic facts concerning trade imbalances and international capital flows. The initial focus is on the international position of the US. Second, I try to clarify why some people seem worried about the external imbalances even though the situation could well be described as “so far, so good”. Third, I look at evidence pertaining to the seriousness of those worries. Since real things will ultimately determine financial things, I begin by asking whether the pattern of current account imbalances poses a problem for the international financial system. In light of this, the analysis then move directly to the related, but different, question of whether the pattern of currency shares in global portfolios held by the private and public sectors poses a problem<sup>4</sup>. Finally, some conclusions are presented. In a nutshell, there do seem to be causes for concern. While there is no good reason for expecting an imminent crisis, it is also not possible to rule one out.

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<sup>4</sup> At the risk of exposing a potential inconsistency in the paper, the section on current account imbalances implicitly assumes a world of perfect substitutability between different currencies. Thus, expectations are crucial to determining relative currency values and the relative quantities of such assets have an influence only via their effects on risk premia. In contrast, the section on currency shares implicitly assumes a world of less than complete substitutability where quantities do matter. I consider both sets of arguments, in part, because so many others have done so.

## 1. Some pertinent facts

The external deficit of the US has been trending upwards since the early 1980s (Graph 1), though with a sharp if temporary improvement in the late 1980s.<sup>5</sup> Today it stands at over 6 percent of GDP.<sup>6</sup> Associated with that deficit has been a shift from the US being a net international creditor to it having net external debts of around 26 percent of GDP. Because US assets abroad have traditionally earned a higher rate of return than foreign assets in the United States, the former being riskier than the latter, the net service component of the current account has only just turned negative. However, given growing net liabilities and higher interest rates in the US, the net service deficit seems likely to rise sharply, adding to the influence of the trade deficit on the current account.<sup>7</sup>

The counterpart to the US current account deficit are surpluses almost everywhere else; this is by no means a bilateral US/China issue (Table 1). That said, the increases in the deficit in recent years have been predominantly accounted for by EMEs. Surpluses in newly emerging Asia have risen sharply, while deficits in Latin America have shrunk. In recent years, the surpluses of oil producing countries have grown notably and futures prices indicate that high oil prices and deteriorating US terms of trade may be part of the landscape for some time to come.

Turning to capital flows. A number of trends can be identified with respect to the US. As to the form of inflows, there was a sharp increase in FDI and equity inflows prior to 2000, but fixed income instruments (government bonds and agencies) have been the destination of choice more recently. As to investor source, there has also been a marked shift away from private sector flows and towards public sector flows; ie reserve accumulation. Finally, in terms of geographical sources, the declining importance of inflows from Europe and the sharp rise in the importance of Asia (predominantly the public sector) needs to be noted (Table 2).

Private capital flows into EMEs have recently strengthened sharply. While this has been a global phenomenon, the inflows into emerging Asia and particularly China have been most marked. The massive recent growth in China's reserves owes much more to this factor than to its global trade surplus. While rising very fast, it has been very small until quite recently.

Perhaps less well appreciated (Table 3) is the extent to which US residents have been borrowing abroad (mostly in USD) to themselves invest abroad (mostly in foreign currencies). The gross debt of the US which is denominated in USD reflects the joint influence of the current account deficit, this borrowing and of course changes in valuations. It now amounts to over 70 percent of US GDP. Moreover, this is a lower band estimate of the long position of foreigners in USD denominated assets, because many non US residents have also issued substantial liabilities denominated in US dollars.

## 2. What are people worried about?

It is fair to say that almost everyone now agrees that the US current account deficit will require eventual correction, even if there are substantial differences of view as to whether this is dangerous and, if so, how imminently dangerous?<sup>8</sup> Arithmetically, a current account deficit of 6 percent of GDP implies that US external debt will rise to 100 per cent of GDP if the nominal growth rate is similar. More worrying, Truman (2005) provides a survey of estimates indicating that, with unchanged policies and exchange rates, the deficit could rise to 8 percent (see Cline, 2005) or even 12 percent (see Mann, 2004) by 2010. This is simply not going to happen.

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<sup>5</sup> See BIS (2004).

<sup>6</sup> The estimate for the 2005 deficit in July of this year was \$200 billion above the estimate in July 2004. This size of revision is unprecedented.

<sup>7</sup> The fact that US investments are relatively riskier also exposes the services account to any downturn in foreign activity and associated profits.

<sup>8</sup> Obstfeld and Rogoff (2004) argue that the US current account deficit is definitely unsustainable as do Roubini and Setser (2005). Dooley et al (2004) take a different view. Also see Mann (2002, 2003) and Mussa (2005).

Yet to say imbalances are unsustainable is not to say there is a “problem”. It is conceivable that a combination of disabsorption in deficit countries and increased absorption in surplus countries, allied with needed movements in real exchange rates, could lead to an orderly external adjustment with global growth maintained overall at potential levels. Contributing forces might be an autonomous (or interest rate induced) increase in the US household saving rate, a rebound in investment in Asia (ex China), macroeconomic and structural policy changes supporting adjustment, and recognition of how valuation effects reduce the US net external liability position as the dollar falls. Inflation, which is currently well under control at the global level, would presumably stay at a positive, low level given the maintenance of overall global growth. To repeat, what then is the problem?

The answer begins by noting the difference between the conceivable and the likely. Two sets of problems have been identified which are closely related. The first, as Truman (2005) stresses, is that even a smooth adjustment of trade imbalances will demand a significant reallocation of real resources in the countries concerned. Given that factor inputs are nowhere fully fungible, and that different kinds of demand are not always easy to stimulate, this could create adjustment problems in the short to medium term. A pertinent example is provided by China. Its capital stock, in large part designed to produce goods for US consumption, could not be redirected overnight given a sharp slowdown in such consumption.<sup>9</sup> Moreover, encouraging lower domestic saving in China would not be easy in the face of declining social safety nets and a reduction in the support previously provided to the elderly by large families. Since exports now account for 36 percent of Chinese GDP, and since foreign owned companies account for the bulk of it,<sup>10</sup> the short term effects would likely be material<sup>11</sup>. A similar point can be made with respect to the United States, albeit in a less extreme way. Construction and services associated with the booming US housing industry has been a strong source of support for the US economy in recent years. Since housing is an archetypal non-traded good, this sector would have to be hit hard by any shift of resources into tradeables.

A closely related issue is that government policies (monetary, fiscal and structural) might be essential to facilitate an orderly adjustment of productive resources. However, history teaches us that such policies might not be forthcoming. An OECD study from 1988 is instructive.<sup>12</sup> It documents eleven case studies of major macroeconomic policy changes which, while strongly recommended much earlier, were only carried out in the context of an exchange rate crisis.

The second set of problems has to do with a potential loss of patience, should the trade imbalances appear to be improving only very slowly. Legislators in deficit countries might lose patience and turn to protectionist measures. Certainly in the United States, this is a clear and present danger. Such concerns almost prevented the CAFTA agreement, could yet lead to punitive tariffs on Chinese exports to the US, and could also derail the Doha round.

Another form of lost patience might be seen in financial markets. Holders of US dollar assets, watching their value decline in terms of foreign currencies, might suddenly head for the exits and precipitate some form of foreign exchange crisis. It is notable that, in spite of a record current account deficit and the decline of the dollar from earlier peaks, the effective real value of the US dollar is approximately at its average level of the last thirty years. Moreover, given the possibility of mean reverting behaviour in a number of other financial markets, where prices seem unusually high, the growth inhibiting effects of a sharp dollar decline might become much more widespread. A rising risk premium on US dollar assets could raise longer term interest rates, with associated effects on mortgage rates, credit spreads and housing prices. Market volatility, and the costs of bearing such risks, also seem unusually low currently and might also prove vulnerable to upward adjustment.<sup>13</sup> Such developments in financial

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<sup>9</sup> To give this a more Austrian flavour, there could be an intertemporal problem. Just at the point the recent huge investment in the Chinese capital stock comes on line, there could be drying up of demand in the US consumer sector. Since the US household saving rate has fallen so low in the recent past, there could well be the need for some increase in the future. Given less than complete substitutability of factor inputs, this implies an increased supply for which there might be no demand.

<sup>10</sup> See OECD (2005).

<sup>11</sup> In 2004 exports contributed more to nominal income growth than either consumption or investment.

<sup>12</sup> See OECD (1988).

<sup>13</sup> For a fuller description of the possible interactions between internal and external imbalances see Knight (2005). Various scenarios having to do with disorderly adjustments are presented in Goldstein (2005), Gagnon et al (2004) and in the IMF World Economic Outlook (2005) Appendix 1.2.

markets might be welcome in moderate doses, but could also have unwelcome effects on output and employment if such movements were very large or very fast. In the limit, such adjustment could also feed back onto the health of the financial system itself. While most current indicators (eg capital ratios and profitability) paint a picture of good health in the financial system, the increasing opacity of many transactions (eg credit default swaps, transfers using CDSs and CDOs) are a growing source of concern.

That there might be problems in the course of effecting required external adjustments is just as conceivable as there not being problems. What remains to be assessed is the likelihood of each. In this spirit, I consider first the arguments for, and then against, the present pattern of current account imbalances being unlikely to pose near term economic problems. The politics of protectionism will not be considered here. I then make a similar assessment for the pattern of currency shares in global portfolios, both private and public

### 3. Factors making problems more or less likely

#### a) *Current account imbalances*

What factors affecting the real economy give support to the views of those who tend to be less worried about the problems noted above. Perhaps the most pertinent to this conference is the argument that a shift upward in productivity growth in the US has put that economy on a faster growth path than others. This has had three alleged effects.<sup>14</sup> First, expectations of higher rates of return on US assets has driven capital inflows which have raised the value of the US dollar. Second, household recognition of the fact that they will be getting part of this productivity dividend has encouraged them to increase consumption, with spillover effects on the external side. Spending abroad some part of an increase in wealth of this nature would not seem to pose longer-term problems. Third, the external deficit will ease over time as higher US productivity lowers costs and increases US competitiveness.

Each of the above statements merits critical examination. Has the US shifted permanently to a higher growth path? While the evidence to date is broadly supportive of this assertion,<sup>15</sup> the most recent data (albeit, likely cyclical) is less so. Moreover, there is also growing recognition of the difficulties involved in interpreting the data that is available,<sup>16</sup> and assessing what it might mean for the external accounts in the future. For example, if the increase in productivity accrues to foreigners who have financial investments, then there will be higher debt service to finance over time even if the US has become more competitive. As to the US now having faster productivity growth than others, it is not as obvious that this is true with respect to many emerging market countries, and it has only recently been the case with respect to the major industrial countries. Indeed, most measures of productivity growth were higher in continental Europe than in the US until the mid 1990s. Looking forward, and taking note of structural changes in European labour markets that might temporarily have reduced productivity growth, the perceived European shortfall could conceivably disappear. Similarly, productivity increases in the US reflecting cost cutting measures of various sorts might prove to be temporary level shifts rather than permanent effects on growth rates.

Even supposing relative US productivity growth has increased permanently, are other aspects of the above story plausible? With respect to expectations-induced capital inflows, we might have expected them in the form of FDI and equity where higher earnings growth might materialise. This was true only up until the late 1990s, as noted in Graph 1. Moreover, again noted above, increasingly the inflows have derived from government rather than private (profit seeking) sources. As for these inflows having driven up the dollar and reduced the competitiveness of the US tradeable goods sector, Graph 2 is

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<sup>14</sup> See Greenspan (2005) and Ferguson (2005).

<sup>15</sup> See Tissot and Skoczylas (2005).

<sup>16</sup> See Chapter II of BIS (2004) for a general discussion of methodological issues. By way of illustration, the output gap in the OECD countries in the early 1970s was estimated in 1977 to have peaked at around ten percent of GDP. Using revised data and newer estimation techniques, this gap is now estimated to have peaked at around only three percent of GDP. See BIS (2005) p 70.

instructive. The real effective value of the dollar has risen only marginally since its low in 1995 and remains well below its 1985 peak. It is hard to see how this could have contributed to the relentless decline in the share of tradeable goods in US production since 1980.

As for higher productivity growth and associated wealth increasing consumption, this was plausible only until the collapse of the stock markets in 2001. Since then the largest part of the measured "wealth" increase driving consumption has been increases in the value of the housing stock. This is particularly unfortunate since increases in housing wealth due to higher prices could in large part be illusory at the national level. A change in relative prices, that of housing services compared to everything else, clearly benefits some people but it does so at the expense of others.<sup>17</sup> This implies that the external deficit is not a dissipation abroad of increases in wealth but could rather be an ongoing process of wealth reduction. Moreover, it is a fact that the decline in the household saving rate set in well before the presumed upturn in the rate of US productivity growth (Graph 3). This would seem to indicate that some other factor was the cause of the decline in the rate of saving.<sup>18</sup>

Finally, there is little support for the argument that sustained productivity increases will, over time, ease the external deficit enough to obviate the need for a substantial nominal depreciation of the dollar. First, consider the scale of adjustment problem. With US exports only half the volume of imports, the former must grow at only half the rate of the latter just to keep the external balance constant. Moreover, the fact that the income elasticity of imports in the US is significantly higher than that of their trading partners is another problem, as is the relatively small size of the tradeable goods sector in the US (again Graph 2). To add to these adjustment difficulties, the recent emergence of China and India as centres for the production of internationally traded goods and services (respectively) implies this is not a propitious historical moment for regaining lost market share. Nominal exchange rate rigidities and huge pools of rural labour in both cases imply that absolute cost advantages could persist for an extended period. Finally, the recent increase in oil prices has transferred substantial sums to oil producing countries whose propensity to import from the US has fallen over time (Table 4).

Measured against the scale of the problem, recent developments in the US tradeable goods industry are not promising. First, aside from computers and electronic products, the productivity gains seen to date in the sectors producing tradeables have not been particularly impressive by international standards (Table 5).<sup>19</sup> Reflecting both this fact and heightened international competition, profits in the US manufacturing sector were only 14.2 percent of total profits in 2004, versus a share of 23.5 percent in 2001.<sup>20</sup> Perhaps as a result, net private fixed assets in manufacturing were actually lower in 2004 than they were four years earlier. Fortunately, the US also has great potential for the export of sophisticated services (software, education, research and knowledge intensive products); provided of course that open markets will let them exploit this advantage.

One way in which international competition has manifested itself has been in a sharp decline in "exchange rate pass-through" to US import prices in recent years.<sup>21</sup> To maintain their market share, as the US dollar has declined since 2001, foreign competitors have maintained their US prices. In some cases this has resulted in lower profit margins, but in many other cases, it has simply prompted foreign producers to find other ways to increase efficiency and cut import costs. For example, over the last five years, ULC (in dollars) has risen 8 percent in the US while falling 1 percent (in euros) in Germany. Reflecting this and related phenomena, the US share of global exports has fallen by 3 percentage

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<sup>17</sup> The BIS has been making this point for some years in successive Annual Reports. See also Debelle (2004). More recently, this view has also been espoused by Cecchetti (2005) p 15. In a closed, static economy, the netting out of the wealth effects would be total. In a growing, open economy, real wealth would increase to the extent that housing services were a superior good, that developable land was in short supply, and that significant net migration was expected. The influence of such forces in the US needs more analysis.

<sup>18</sup> It is also important to note that it is the decline in household saving that seems most responsible for the trade deficit not the fiscal deficit. Erceg et al (2005) in the FRBG Economic Letter also conclude there is no major relation between the current fiscal expansion and the trade balance.

<sup>19</sup> Also see the rankings of productivity growth by industrial sector (average growth 2000 to 2003, as compared to 1990s), compiled by the US Department of Labour.

<sup>20</sup> See Bureau of Economic Analysis, NIPA Table 6.16 D "US corporate profits by industry".

<sup>21</sup> See BIS (2005) p 17.

points (to 9 percent) while the shares of Germany and China have risen by 4½ and 3 percentage points respectively. None of these developments give evident promise of structural developments in the US likely to improve the current account in the future, thus reducing the need for nominal exchange rate adjustment.<sup>22</sup>

A second set of arguments for the US not having to worry about external imbalances has to do with developments outside the United States. It has been argued that there has been chronic underspending abroad. This was first evident in Japan and Germany, in light of their respective slowdowns in the early 1990s, but a similar phenomenon has been seen more recently in Emerging Asia (ex China) in the aftermath of the Asian crisis. Bernanke (2005) has suggested that, in the face of a "global saving glut", the US has simply played the role of consumer of last resort (the residual player in the n-1 game) to keep global output growing more or less in line with capacity. In fact, the principal problem has not been higher saving abroad but a general weakness in corporate investment<sup>23</sup>. While a compensating expansion of demand in the US might well then have been globally beneficial, it begs the question of what happens should saving fall further in some of these countries and/or investment begins to rise. The identity referred to above clearly implies the US deficit must shrink. However, what the identity does not reveal is the way in which this might come about. Were demand pressures to strengthen abroad, but with the US already at full capacity, the likelihood of sharper movements in interest rates to resist inflation and promote disabsorption would be significantly enhanced. Clearly, higher oil prices are a further material complication in this regard, even if inflationary expectations seem to have been remarkably sticky to date. In light of the arguments presented in Section 2 above, such a tightening scenario could precede in a welcome and orderly way, but the exposures identified in Section 2 imply that this might not be the case.

A final argument for being less concerned is that virtually all of the US debt owed to foreigners is denominated in US dollars, while US assets abroad are denominated in foreign currencies. Thus, the decline in the US dollar that might be needed to stabilize external debt ratios will be smaller given that the dollar value of US investments abroad will be rising.<sup>24</sup> In effect, there is a "currency mismatch" problem here, but (unlike Asia) one which is to the advantage of the debtor and the disadvantage of the creditors. It is hard to dispute the arithmetic of this argument, but it falls short as a source of solace in that it ignores two possible sets of reactions on the part of creditors. The first is real and the second is financial.

The first point is that, having suffered a sizeable wealth loss due to currency appreciation against the dollar, there could well be a tendency for creditors to spend less. However, this flies directly in the face of the traditional presumption that countries with appreciating currencies need to increase absorption to back in domestic demand as foreign demand falters. These effects could be substantial. The work of Mussa (2005) and Obstfeld and Rogoff (2004) and others indicates that the real effective value of the dollar might need to fall twenty percent or more from current levels to generate the needed substitution effects between tradeables and non-tradeables. If the gross long position of foreigners in US dollars is over \$8 trillion, this implies losses of around \$1.5 trillion for appreciating countries. Moreover, depending on their incidence, losses of this size could potentially have disruptive effects on the functioning of the financial system as well. In contrast, it could be contended that past, large losses of this sort (declines to date in both the dollar and equity prices) have been digested without difficulty. This admitted, the system might now be less well placed than previously to absorb still further shocks.

A second point concerns financial behaviour. Should creditors observe past losses and extrapolate them into the future, there would be a marked increase in the temptation to shorten long dollar positions.<sup>25</sup> Moreover, even aside from revised expectations, losses might catalyze a sudden

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<sup>22</sup> Obstfeld and Rogoff (2004) argue that the nominal exchange rate adjustment to put the current account on a sustainable path rises proportionally as pass-through declines.

<sup>23</sup> In fact, household saving rates have fallen sharply in Japan and also more moderately in many Asian countries outside China. More strikingly, investment has been exceptionally weak in Japan, Germany and South-East Asia. In each case, this weakness of investment followed an earlier period of very rapid expansion.

<sup>24</sup> See Obstfeld (2004) and Lane and Milesi-Ferretti (2005).

<sup>25</sup> Lane and Milesi-Ferretti (2005) put it nicely on p 18. For the US "it is not a viable long-run strategy to rely on such valuation gains to ameliorate a structural reliance on net capital inflows". Or to put it more traditionally "You can fool some of the people ..."

recognition of the extent to which financial imbalances had built up, and an associated shift upward in the risk premium demanded to hold US dollar assets. The likelihood of this happening has, moreover, been increased by the growing tendency of capital inflows to support consumer and government spending rather than fixed investments yielding productive returns over time (see Graph 3). As the dollar fell in consequence, and US longer term rates rose, a number of interacting phenomena could then become threats to growth as described in Section 2 above.

The likelihood of this feeding back on to the value of the dollar could also be enhanced by growing recognition by foreigners of a moral hazard problem. Since it is foreigners who suffer the direct losses from a dollar depreciation, the domestic policy incentives to resist such a depreciation through tighter US monetary policy might be seen to be less strong. In this context, the impact of rising inflation in the US is moot. In itself, rising US inflation might lower foreign confidence in the value of US assets. Yet, it would also provide a domestic rationale for tighter monetary policy which should provide dollar support.

### **b) Currency shares in global portfolios**

What factors affecting the current share of dollars in the global portfolio of foreign exchange assets might give support to those who tend to be less worried about the problems noted in Section 2 above? Identifying whether there might be a “dollar overhang” demands looking at prospective private sector behaviour as well as that of the public sector. While the foreign exchange exposure of the private sector is very much larger,<sup>26</sup> the behaviour of the public sector at the margin remains of significant importance. Intervention and reserve accumulation in Asia, massive by traditional standards, has financed a very substantial portion of the US current account deficit<sup>27</sup> and does seem to have exerted an influence on exchange rate levels.<sup>28</sup> Moreover, it could be that changes in private sector behaviour might be catalysed by changes in public sector behaviour. For better or worse, financial markets today pay enormous attention to what central banks (in particular) both say and do.

Looking first at the foreign private sector's holdings of dollars, there are three sets of arguments to support the view that we need not be too concerned. The first is that the proportional holding of dollars (relative to other foreign currencies) does not seem to be out of line. The second is that the institutional features of US financial markets induce a continuing preference for dollar denominated assets. The third is that, in the event of emerging difficulties, moderately higher interest rates would suffice to ensure adequate support for the dollar. Each of these assertions could in fact be disputed.

The first argument is that there is no clear evidence of a dollar overhang. Lane and Milesi-Ferretti (2005) estimate that in 2003 US assets accounted for 27 percent of the world's holdings of foreign assets, not far off the US share of global GDP. Moreover, BIS statistics indicate that the proportion of dollar denominated assets in the total of internationally issued notes and bonds was 36 percent at the end of 2004. This admitted, another frame of reference could give greater cause for concern. As noted above, the long position of foreigners in dollar denominated liabilities of US residents now seems well in excess of 70 percent of US GDP. This implies an exposure of the rest of the world equivalent to over 20 percent of their GDP. While it is not impossible that some of this is offset by natural hedges, or has been consciously covered in derivative markets, the exposure seems of such a magnitude as to at least suggest the possibility of further covering. The fact that private sector inflows to the US have been both declining, and are increasingly short term, is also consistent with a growing caution on the part of private foreign investors.

A closely related argument is that most private portfolios still exhibit a marked degree of home-country bias.<sup>29</sup> As this begins to break down, there will be a growing willingness on the part of foreign investors

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<sup>26</sup> BIS statistics indicate that, in 2002, foreign official assets amounted to only 5.5 percent of all cross-border liabilities. Moreover, this is likely to be an overestimate given suspected underreporting on the private sector side.

<sup>27</sup> BIS statistics indicate a portion of 60 to 70 percent in 2004. See McCauley (2005)

<sup>28</sup> The most obvious example is China, where reserve levels have risen sharply while the exchange rate against the dollar has stayed constant. See Goldman Sachs (2004a, 2004b).

<sup>29</sup> See Bertaut C C and L G Grier (2004). Also Gagnon et al (2004). Both studies define home bias in terms of the proportion of purchases of domestic currency assets (as opposed to foreign currency) being more than that predicted by an international CAPM model.



to purchase assets denominated in US dollars. This will help compensate for the ever growing volume of liabilities being issued in US dollars. The counterargument is, of course, that this cuts two ways. Investors resident in the US also have a strong home bias. If they also begin to diversify in a serious way, this would work in the direction of a more vulnerable dollar on the downside.

The second argument is that dollar holdings have a natural advantage because of higher liquidity, greater transparency and stronger property right in US markets than elsewhere. It is qualities of this nature, and the network externalities they imply, that have made the dollar the preeminent international currency. While investments in fixed capital in many (capital short) emerging market economies ought in principal to result in higher rates of return, this is not always the case. Moreover, it might still seem more sensible to rather build up assets abroad once prospective returns have been adjusted for risks of the sorts just noted. As powerful as this argument might be, one important change has taken place recently. Following the introduction of the Euro, European financial markets are now arguably as “broad, deep and resilient” as those in the United States.<sup>30</sup> For the first time in recent history, there is then an alternative to the dollar. Of course, this possibility by no means assures a sudden, or even an eventual, diminished role for the dollar in international transactions.

The third argument for being less concerned is that “moderate” interest rate increases should suffice to offset any reduction in the willingness to hold expanding volumes of dollar denominated assets. Indeed, the strength of the dollar since the beginning of 2005 has come as no surprise to many, given the way in which policy rates have moved in favour of the US. This assumption of a very high degree of international capital substitutability, in response to interest rate changes, is in the tradition of the Mundell-Flemming model which is still likely to provide the best characterisation of how the international financial system actually functions. Yet a high degree of substitutability also implies some other effects which a one period model cannot adequately capture. The fact that monetary restraint is in part achieved through exchange rate changes, rather than interest rate increases alone, implies that there will be less resistance to domestic spending proclivities that could become excessive.<sup>31</sup> In this way, capital inflows (and external imbalances) can help exacerbate internal imbalances. Evidently, such flows also contribute to external imbalances since, in the Mundell-Flemming world, interest rates remain lower than otherwise, which thwarts domestic disabsorption,<sup>32</sup> and the dollar remains higher (or even rises) which reduces the effects of the elasticity of substitution on trade flows.

What aspects of the possible behaviour of the foreign official sector might provide support for the dollar? Two arguments can be put forward. Again, each has shortcomings. First, excluding Japan (as a special case)<sup>33</sup> the proportion of official reserves held in dollars is no higher than the share of the “dollar block” in global production. There is no overhang to begin with. Second, there is the Dooley et al (2003, 2004) argument that we have a “New Bretton Woods” system in place which is mutually convenient for both creditors and debtors. This implies a very great willingness on the part of exporting countries to provide ongoing vendor finance; that is, to recycle the receipts from exports to provide debtors with the financing needed to pay for them.

Consider first the overhang issue. Excluding Japan, the share of dollars in current official reserves is 57 percent. While this is much higher than the US share of global production, it is about equal to the share of the “dollar block” in output, where the dollar block is defined as including those countries whose currencies are relatively fixed against the dollar.<sup>34</sup> The first point to make by way of counterargument is that a countries' currency orientation need have no relation with the optimal composition of that countries' reserves. Considerations such as liquidity, property rights, rates of return etc. would all figure independently into the latter decision. That said, it is the case that the minimum-

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<sup>30</sup> See White W et al (2002) and Galati and Tsatsaronis (2003).

<sup>31</sup> This is an international variant on a domestic theme that Claudio Borio and I have played elsewhere (2004). If CPI inflation is under control, and there is thought to be no need to raise policy rates, an “elastic” credit system could well generate booms and busts in credit, asset prices and fixed investment that could eventually prove very costly.

<sup>32</sup> In the United States, the fact that lower long-term government rates drive down mortgage rates is an obvious channel.

<sup>33</sup> See Mikuni and Murphy (2002) for a description of the long standing mercantilist tendencies of Japan. The associated presumption is that the Japanese official sector is not likely to change their equally long standing practice of investing almost wholly in dollars. Were Japan not to be excluded, IMF figures indicate the dollar share rises to almost 80 percent.

<sup>34</sup> See the BIS Annual Report (2005) Chapter V for a fuller description. More technically, countries are assigned to the dollar block (or not) depending on the sensitivity of the local currency/dollar cross rate to movements in euro/dollar and Yen/dollar.

variance reserve portfolio is provided by investing in the foreign currency to which the domestic currency is fixed. Moreover, casual empiricism indicates that countries pegged to the dollar (eg Hong Kong, China etc) do tend to have higher proportions of reserves in dollars, whereas countries (especially in Central and Eastern Europe) more aligned to the Euro have higher proportions of Euros. Viewed from this perspective, the worrisome prospect is that recent evidence shows that the “dollar block” seems to be getting smaller. That is, there is growing empirical evidence (especially in Asia) that cross rates with the dollar are responding more now to changes in the Euro/dollar and Yen/dollar rates.<sup>35</sup> The implication of this is that some more substantial portfolio rebalancing might still be to come.

Turning to the second argument, as espoused by Dooley et al, the starting point is that Asian countries generally have export led growth strategies. In this regard, they are asserted to be following the successful model of Japan. Moreover, they have achieved an implicit arrangement with the United States that is mutually convenient. The Asian exporters wish to continue exporting to the United States. The price they must pay is to intervene in foreign currency markets to keep up the value of the dollar, and to accumulate large amounts of US dollar reserves. The United States wishes to maintain the supply of “cheap” imports. Moreover, the US official sector is, in any event, unwilling to accept the slowdown in domestic growth that would be likely to accompany any attempt to deal with the current account deficit in the traditional manner; depreciation and disabsorption.

Because it is a matter of mutual convenience, it is hypothesised that this arrangement might continue for years. Moreover, in the important case of China, there are some ancillary arguments for their continuing to resist appreciation against the dollar. The most important of these concerns the effects of a stronger renmimbi on agricultural prices (downwards) and the implications for rural incomes, domestic migration and social order. Another concern is the effect of a stronger domestic currency on a still very fragile domestic banking system.

A whole host of counterarguments can be raised, most having to do with the presumed behaviour of the official foreign sector.<sup>36</sup> To begin with, one can question whether Asian countries (ex Japan) do really have export led growth strategies.<sup>37</sup> Granted, this approach served Japan well, but it has already resulted in a huge build up of US external debt. Is it reasonable to contemplate that this could be done again, and on a vastly larger scale?<sup>38</sup> Moreover, the assertion flies in the face of the very significant efforts made by many emerging Asian countries to stimulate domestic demand. Given the size of the investment crash in Asia in the last 1990s, and the consumer crash in Korea more recently, one is rather led to conclude that the problem is less one of official unwillingness to stimulate domestic demand than the capacity to do so effectively.

The Asians are also increasingly aware of the costs associated with attempts to keep down the value of their currencies, and the risks associated with reserve accumulation. As to the former, domestic monetary policies that are easier than otherwise can lead to domestic inflation and/or other domestic imbalances. The spectacularly high levels of investment in China must raise concerns about misallocation and eventual losses on a scale of equal magnitude.<sup>39</sup> House price movements in a number of countries, again including China, point in the same direction. As for the risks of reserve accumulation, the principal concern must be capital losses as domestic currencies do eventually appreciate.<sup>40</sup> In Asian countries with some form of legislative oversight of the executive branch, criticism of such losses has already begun to be expressed. A related problem arises when these losses have to be passed through the balance sheet of the central bank. This raises the possibility of

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<sup>35</sup> See McCauley (2005).

<sup>36</sup> See Genberg et al (2005).

<sup>37</sup> See my comments on Chapter 2 of Genberg et al (2005), where I agree with some parts of the authors' arguments but disagree with others.

<sup>38</sup> When Japan began its phase of post-war reindustrialisation, it had 3 percent of the world's population. In contrast, China and India together account for almost a third (and rising) of the world's population today.

<sup>39</sup> An investment "bust" in China would likely aggravate external tensions since it would likely lead both to reduced imports and a more aggressive marketing of exports.

<sup>40</sup> If we assume that China continues to accumulate reserves through to the end of 2006, at the recent rapid pace, and further assume a 30 percent revaluation of the renmimbi at that time, the capital loss would amount to almost 15 percent of GDP.

the need for the central bank to be recapitalised,<sup>41</sup> with a resulting risk of reputational loss and the possibility of some loss of political independence.

Moreover, both the intervening Asians and the official sector in the United States are becoming increasingly aware of the global implications of the policies they have been following up until now. Easy money policies in the industrial countries have been matched by those in Asia. Virtually everywhere real policy rates have been around zero for some years. Moreover, the recycling of reserves back into the bond markets of the industrial countries, particularly the United States, may have helped push down bond rates and mortgage rates.<sup>42</sup> This has muted the already “measured” tightening of monetary policy in the United States, and has helped support what is now a global housing boom.

This is not to say that the argument of “mutual convenience” has no merit. Rather, there are also other considerations to be taken into account that point in the direction of recent practice being an unstable equilibrium. Indeed, the currencies of a number of Asian countries (in particular Korea) have already risen somewhat against the dollar, and the Japanese authorities ceased intervening to hold down the yen in the spring of 2004. The decision of the Chinese (and Malaysian) authorities in August to revalue and to introduce a new exchange rate regime, based on an effective exchange rate, marks in principle a significant departure from past practice. This having been said, since the announcement, the daily variance of the renmimbi/dollar rate has been only around ten percent of the rate measured against an estimated effective rate. This implies no significant change in behaviour to date.

Finally, whatever the merits of the arguments of Dooley et al, it bears emphasizing that their importance is steadily slipping as higher oil prices transfer reserves away from net oil consumers (both the US and the Asian countries) to net oil producers. In effect, Asian countries cannot recycle reserves that they no longer have. While oil producing countries have a relatively high marginal propensity to import, certainly higher than that seen in the 1970s, the build up of their reserves has nevertheless been very substantial. Moreover, analogous to their greater propensity to import from Europe and Asia than from the United States, their reserves also have a greater tendency to be placed in currencies other than dollars (see Graph 4). Both these developments suggest less official support for the dollar going forward than hitherto.

## Conclusion

The above observations imply that global imbalances ought to be of serious concern for policymakers. What remains to be seen, given the magnitude of already existing internal and external disequilibria, is what new policies might support an orderly adjustment to a new and more sustainable global growth path. Given the arguments above about potential instability on the part of private holders of US dollar liabilities, it is crucially important that the public sector be able to provide adequate assurances that matters are under control. Given the complexity, mutual dependence and international scope of the problems being addressed, a cooperative policy approach might have more appeal than each country simply acting in the pursuit of what it sees as its own self interest.

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<sup>41</sup> While some economists argue that a central bank has no need for capital, since its liabilities are always acceptable as “money”, there is no question that many central bankers do feel distinctly uneasy when confronted with capital losses.

<sup>42</sup> Attempts to measure this influence have thrown up a wide variety of estimates. To add to the uncertainty, see BIS (2005) Chapter VI.

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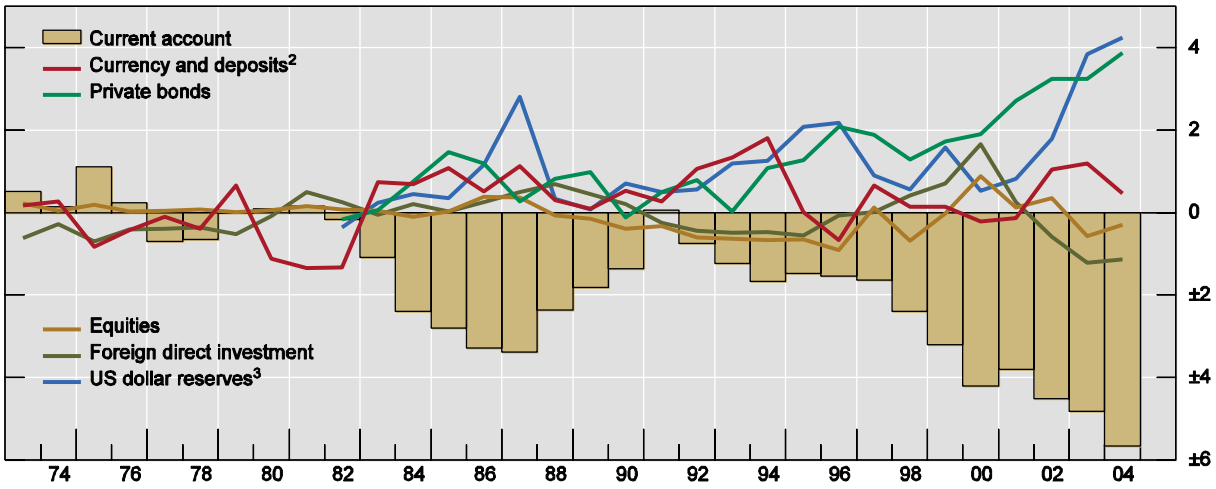
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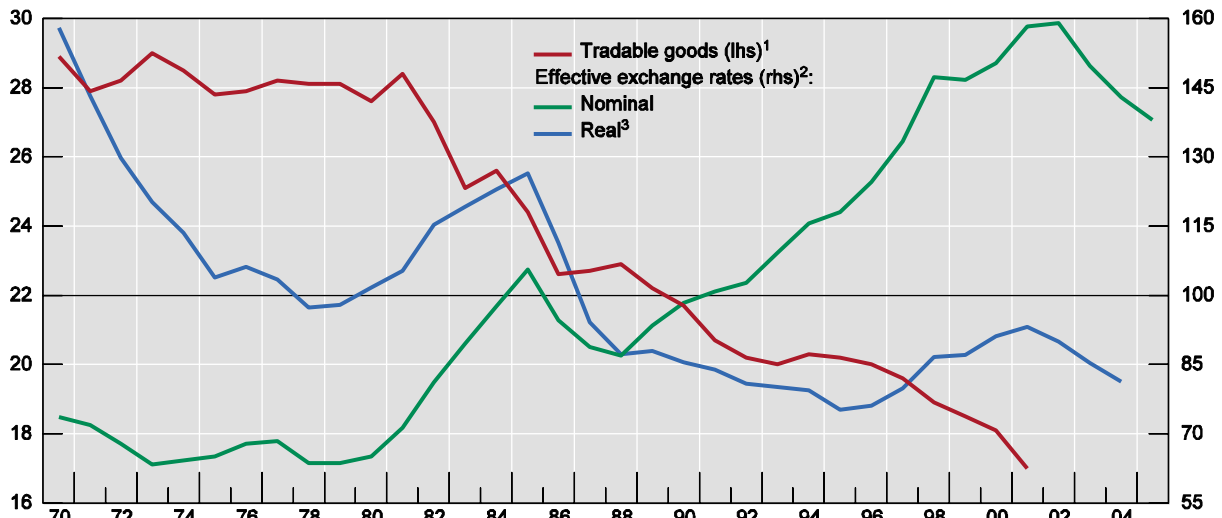
**Graph 1**  
**The US current account deficit and its financing<sup>1</sup>**  
**As a percentage of GDP**



<sup>1</sup> Financing variables are net flows. <sup>2</sup> Excluding interbank loans. <sup>3</sup> Changes in central bank holdings of US dollar assets; 2003 and 2004 figures are estimated.

Sources: IMF; national data; BIS.

**Graph 2**  
**The share of tradable goods in US output and exchange rates**

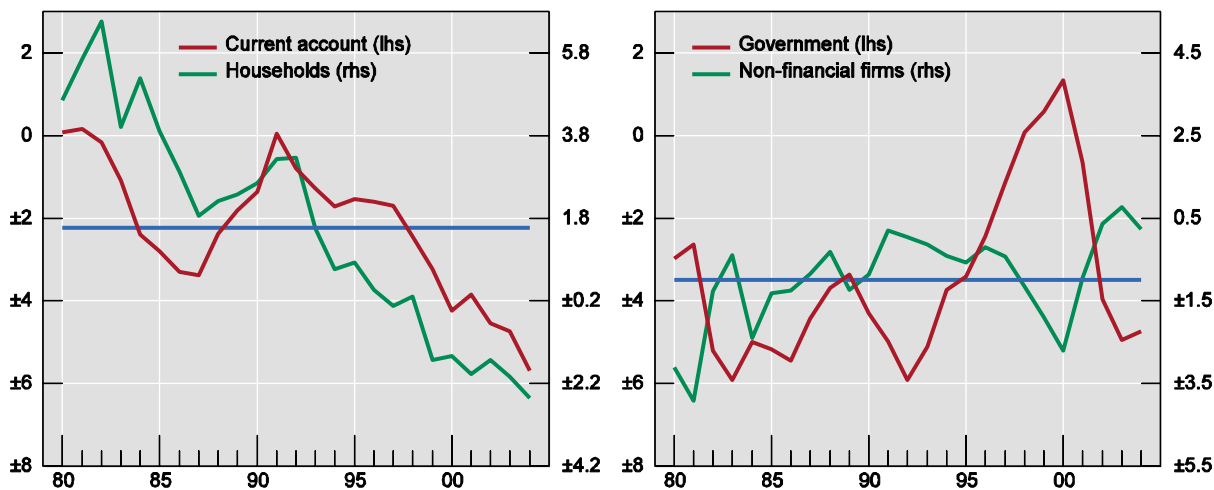


<sup>1</sup> As a percentage of total value added. <sup>2</sup> 1970±2004 = 100. <sup>3</sup> In terms of relative unit labour costs in the manufacturing sector.

Source: OECD.

**Graph 3**  
**US sectoral financial balances**

As a percentage of GDP



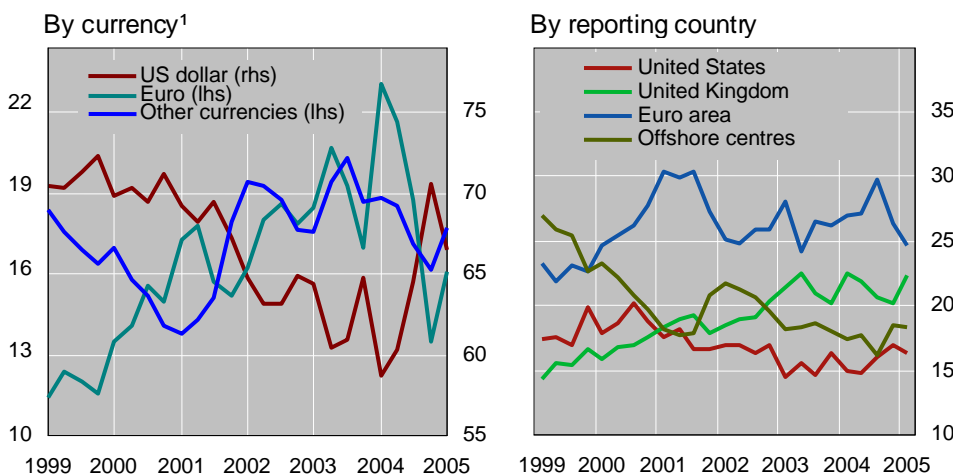
Note: The blue lines represent the 1980±2004 means of the respective financial balances.

Sources: National data; BIS.

**Graph 4**

**OPEC deposits with BIS reporting banks**

In per cent



<sup>1</sup> Data for BIS reporting countries that provide a currency breakdown. Data are adjusted using constant end-March 2005 exchange rates.

Sources: BIS.

Table 1  
Current account balances<sup>1</sup>

	1997	1998	1999	2000	2001	2002	2003	2004		Change 1997–2004	
United States	-141	-214	-300	-416	-389	-475	-520	-668	-5.7	-527	-4.0
Euro area <sup>2</sup>	96	58	32	-37	7	49	27	47	0.5	-49	-1.0
Japan	97	119	115	120	88	112	137	172	3.7	75	1.4
Other industrial economies	18	-1	-12	34	35	34	52	46	0.9	28	0.3
Emerging Asia	14	114	107	86	91	132	169	183	4.1	170	3.7
China	37	31	21	21	17	35	46	69	4.0	32	-0.1
Hong Kong SAR	-8	3	10	7	10	13	16	16	9.8	24	14.2
India	-3	-7	-3	-5	1	7	7	-1	-0.1	2	0.6
Korea	-8	40	25	12	8	5	12	28	4.1	36	5.6
Singapore	15	18	15	12	14	16	27	28	26.1	13	10.5
Taiwan, China	7	3	8	9	18	26	29	19	6.1	12	3.7
Other Asia	-26	25	31	30	22	30	32	25	3.0	51	6.5
Latin America	-67	-91	-57	-48	-54	-16	6	18	0.9	85	4.3
Transition economies	-30	-29	-6	13	16	8	-1	13	0.7	43	3.5
Rest of world	0	-46	-6	74	38	20	54	103	6.2	103	6.2
Total <sup>3</sup>	-14	-89	-127	-174	-168	-137	-76	-86	-0.2	-73	-0.2

<sup>1</sup> In billions of US dollars; figures in italics are percentages of GDP or percentage points. <sup>2</sup> Sum of the balances of individual euro area economies. <sup>3</sup> Reflects errors, omissions and asymmetries in balance of payments statistics, as well as the exclusion of data for international organisations and a limited number of countries.

Sources: IMF, *World Economic Outlook*; national data.

Table 2  
Net foreign purchase of US securities: breakdown by instrument and region/country<sup>1</sup>

	1998	1999	2000	2001	2002	2003	2004
<b>Total inflows</b>							
Asia	16	21	20	31	37	41	39
Japan	7	12	11	11	17	24	27
Euro area	12	9	12	10	3	7	6
United Kingdom	50	37	36	35	34	23	28
Caribbean centres	-1	6	-0	11	14	11	9
Others	24	27	33	13	12	18	18
<b>US government bonds</b>							
Asia	52	71	57	63	49	64	52
Japan	19	39	35	24	22	40	36
Euro area	2	-9	7	-5	-4	2	1
United Kingdom	44	-8	-4	20	30	14	23
Caribbean centres	-12	11	6	8	18	7	7
Others	14	34	32	14	6	13	18

<sup>1</sup> As a percentage of respective totals.

Source: US Treasury.



Table 3  
**Official holdings of US dollars and US external financing<sup>1</sup>**

	Flow			Stock	
	2002	2003	2004	2003	2004
BEA foreign official assets in the United States	116	278	395	1,567	1,982
Official dollar purchases/holdings <sup>2</sup>	187	423	498	2,077	2,575
US current account deficit/net international investment position	475	520	668	2,157	2,484
US fixed income external financing/debt <sup>3</sup>	510	672	836	3,012	3,734
US dollar net external financing/liabilities (excluding US equity from dollar-denominated) <sup>4</sup>	515	697	791	3,288	3,901
US dollar net external financing/liabilities <sup>5</sup>	652	799	958	7,446	8,516

<sup>1</sup> In billions of US dollars. <sup>2</sup> Estimated using foreign official assets in the United States from BEA, offshore US dollar deposits from the BIS international banking statistics, Table 5C, and the Japanese SDDS data on deposit reserves. <sup>3</sup> Calculated by adding flows/stock of net direct investment and net portfolio equity investment to the absolute value of the current account deficit/net international liability position. <sup>4</sup> Calculated by adding US official reserve flows/assets, the net increase/holding of foreign currency bonds and the net increase/stock of US bank and non-bank claims denominated in foreign currency to fixed income external financing/debt. <sup>5</sup> Estimated by summing the absolute value of the current account deficit/net international investment position, flows/stocks of direct and portfolio equity investment abroad, the net increase/stock of foreign currency denominated bonds, the net increase/stock of US bank and non-bank claims denominated in foreign currency and the flow/stock of US official reserve assets.

Sources: BEA; Nguyen (2005); Sauer and Pierce (2005); US Treasury et al (2005); BIS estimates.

Table 4  
**Import market shares in the OPEC and the CIS<sup>1</sup>**

	OPEC		CIS	
	1998	2004	1998	2004
United States	15.4	7.9	7.0	3.3
Euro area	26.0	27.1	32.0	39.6
Japan	9.2	8.0	1.4	3.0
China	3.7	7.8	1.9	6.3

<sup>1</sup> As a percentage of total imports.

Source: ECB *Monthly Bulletin*, July 2005.

Table 5  
**US labour productivity gains, by sector**

	Employment <sup>1</sup> 1987–2004	Productivity gains <sup>2</sup>	
		1988–95	1996–2004
Private industries	85	1.3	2.6
Agriculture and mining	2	1.0	–0.4
Construction	6	–0.5	–1.4
Manufacturing	14	3.1	6.0
Durable goods	9	3.9	7.8
Non-durable goods	5	1.9	3.4
Transportation and utilities	4	2.2	2.1
Wholesale trade	5	2.4	4.5
Retail trade	11	3.2	5.2
Finance, insurance and real estate	6	2.2	2.6
Services	37	–0.5	1.0
Government	15	0.4	0.3

Note: Break in series in 2000 due to a new breakdown in industry branches.

<sup>1</sup> As a percentage of persons engaged in domestic production. <sup>2</sup> BIS calculations using real value added and hours worked by full-time and part-time employees, by industry; in per cent.

Source: US Bureau of Economic Analysis.