

## V. Foreign exchange markets

### Highlights

The weakening of the US dollar was the salient feature in the major foreign exchange markets in 2002 and early 2003. The dollar depreciated particularly against the euro and, to a lesser extent, the yen, but also fell over time against a broadening range of currencies. Interest rate differentials seemed to re-emerge as an important factor behind exchange rate movements against the backdrop of disappointing growth prospects and the continuing decline in equity prices. The widening US current account deficit and changes in the composition of its financing also took centre stage, suggesting a rising risk premium on US assets.

An empirical review of major current account corrections in a large number of industrial countries since 1973 reveals that these adjustments were associated with slower domestic growth but only relatively minor currency depreciations. In contrast, an analysis of the particular episode affecting the United States in the second half of the 1980s indicates that the decline of the dollar played a much larger equilibrating role. Yet there are important differences between current conditions in the global economy and those prevailing in the 1980s. The implication appears to be that a significant correction of current account imbalances still seems likely, but that a similar pattern of dollar adjustment cannot be predicted with confidence.

Several non-EMU European currencies and the Australian, Canadian and New Zealand dollars derived support from their interest rate differential over US dollar- or euro-denominated assets. Their appreciation was also consistent with the relatively good performance of the respective economies. A notable exception to this association between currency strength and yield advantage was the Swiss franc, whose appreciation between January 2002 and March 2003 mainly reflected a safe haven role.

The search for yield by international investors also lent support to some emerging market currencies during the period under review, though global economic prospects and various domestic factors also exerted a considerable influence.

### The dollar, euro and yen

During the period under review, the dollar fell markedly against the euro and, to a lesser extent, the yen. It also declined significantly in effective terms. The dollar's weakness appeared to be driven mainly by a reorientation of capital flows towards safer fixed income assets and the consequent re-emergence of interest rate differentials as a determinant of international capital movements. In addition, concerns about the growing US current account deficit weighed

on the dollar. In contrast to earlier episodes of heightened uncertainty, but similarly to the period around the previous Gulf war, the dollar did not play a role as a safe haven currency.

### Key developments

The dollar declined across the board

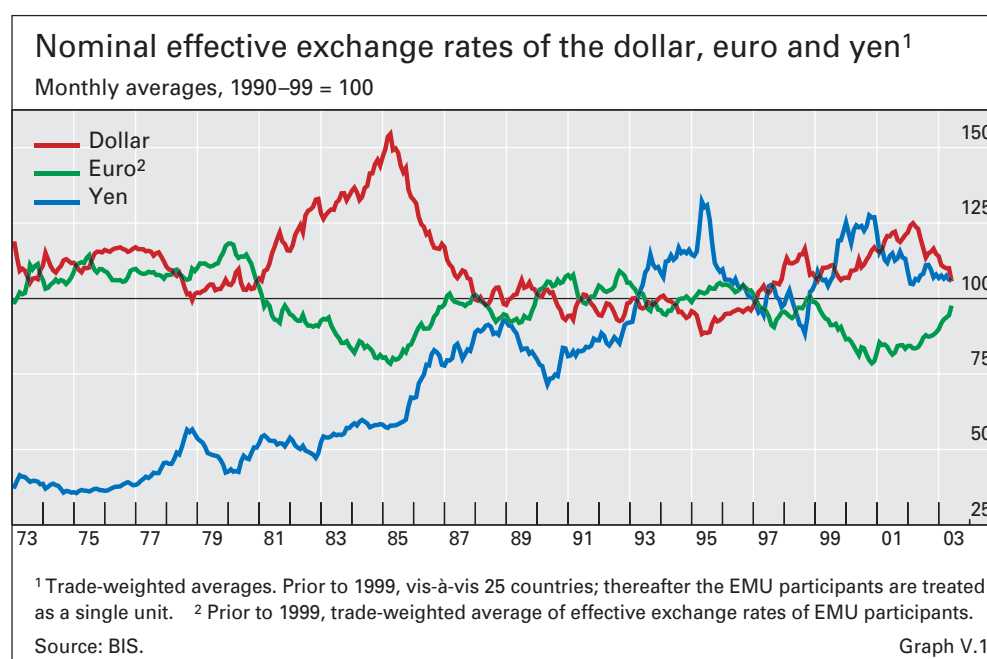
After a long period of broad-based strength, the dollar peaked at the end of January 2002. It then began to decline against many currencies starting in April, coinciding with a general deterioration of sentiment in US financial markets (see Chapter VI). In nominal effective terms, the dollar depreciated by about 16% between January 2002 and its lows in mid-May 2003 (Graph V.1).

The adjustment of the dollar was especially significant vis-à-vis the euro, which appreciated by 30%, from the \$0.86–0.89 range in early 2002 to reach four-year highs of over \$1.15 in mid-May 2003 (Graph V.2). The euro gained about 15% in nominal effective terms over the period, which marked a clear recovery from its depreciating trend in 1999 and 2000.

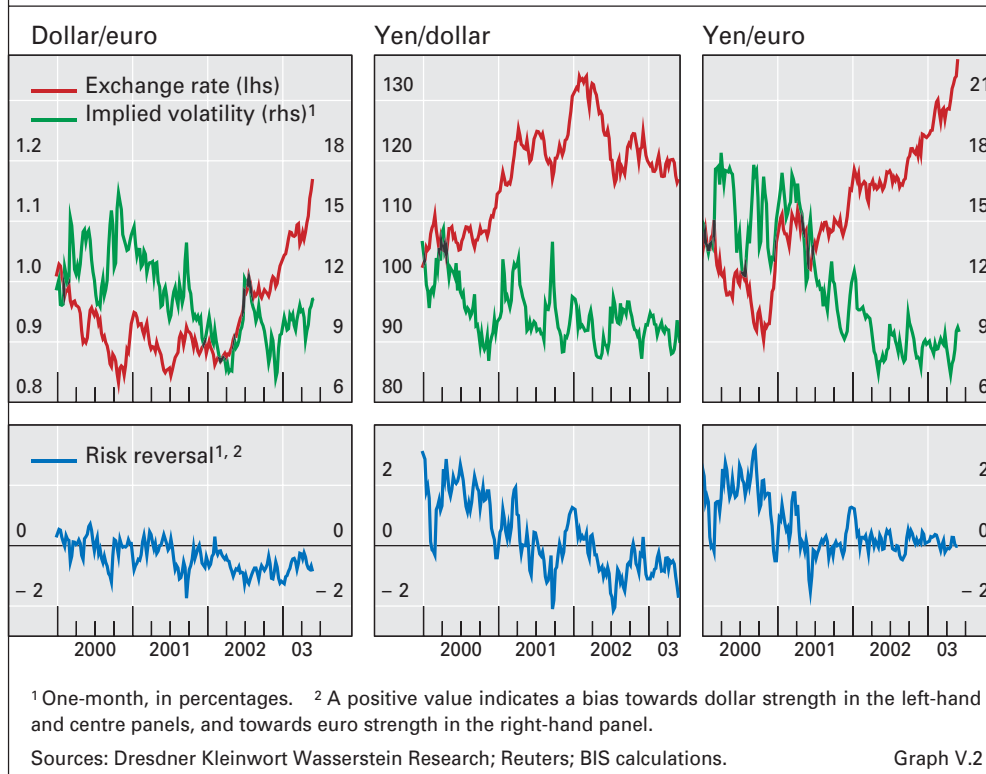
The dollar also weakened against the yen, albeit to a lesser extent, from over ¥134 in early 2002 to below ¥117 in May 2003. The advance of the yen prompted official intervention by the Japanese authorities on several occasions. In contrast, the yen continued to decline vis-à-vis the euro, from the ¥115–119 range to touch ¥135 in mid-May. Overall, the yen remained unchanged in nominal effective terms over the period under review. While still strong by historical standards, the yen nonetheless ended the period 19% below its recent peak in late 2000.

Significant shift in market sentiment

The depreciation of the dollar was accompanied by some significant changes in market sentiment (Graph V.3). Starting in early 2002, market participants' view of the balance of risks between a much stronger and a much weaker dollar, measured by the skewness of estimated risk neutral probability density functions, shifted towards dollar weakness. Econometric tests reveal that over the last two years a deterioration of sentiment about the



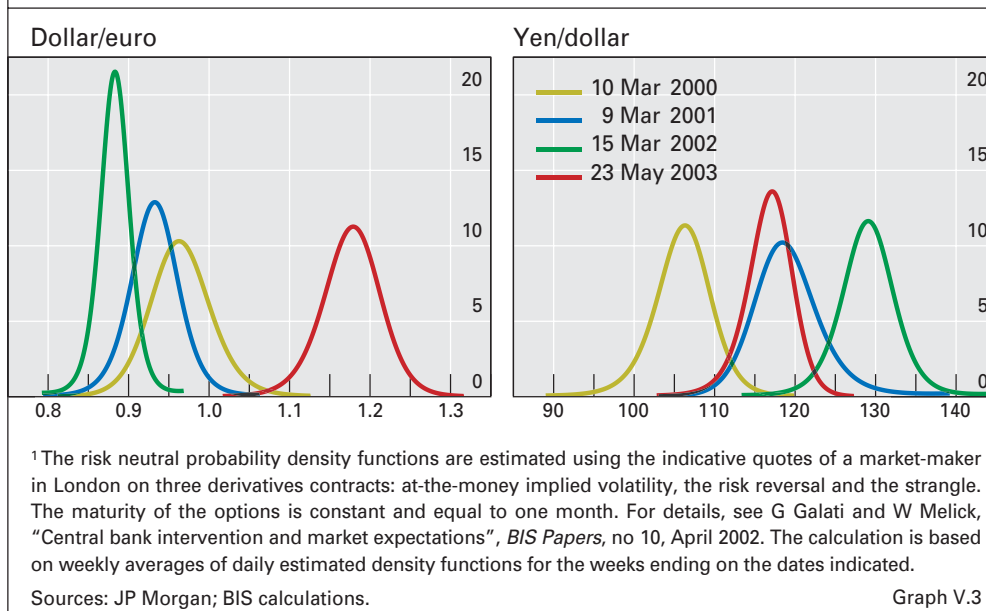
## Exchange rates, implied volatilities and risk reversals of the dollar, euro and yen



dollar tended to be followed by an actual decline in the exchange rate after four weeks, even after controlling for the effect of past exchange rate movements.

A notable feature of the major foreign exchange markets during the period under review is that, despite the pronounced movements of the G3 currencies, their short-term volatility was relatively low compared to previous years. This stood in contrast to the uncertainty in other financial markets (see Chapter VI).

## Probability distributions of the dollar against the euro and yen<sup>1</sup>



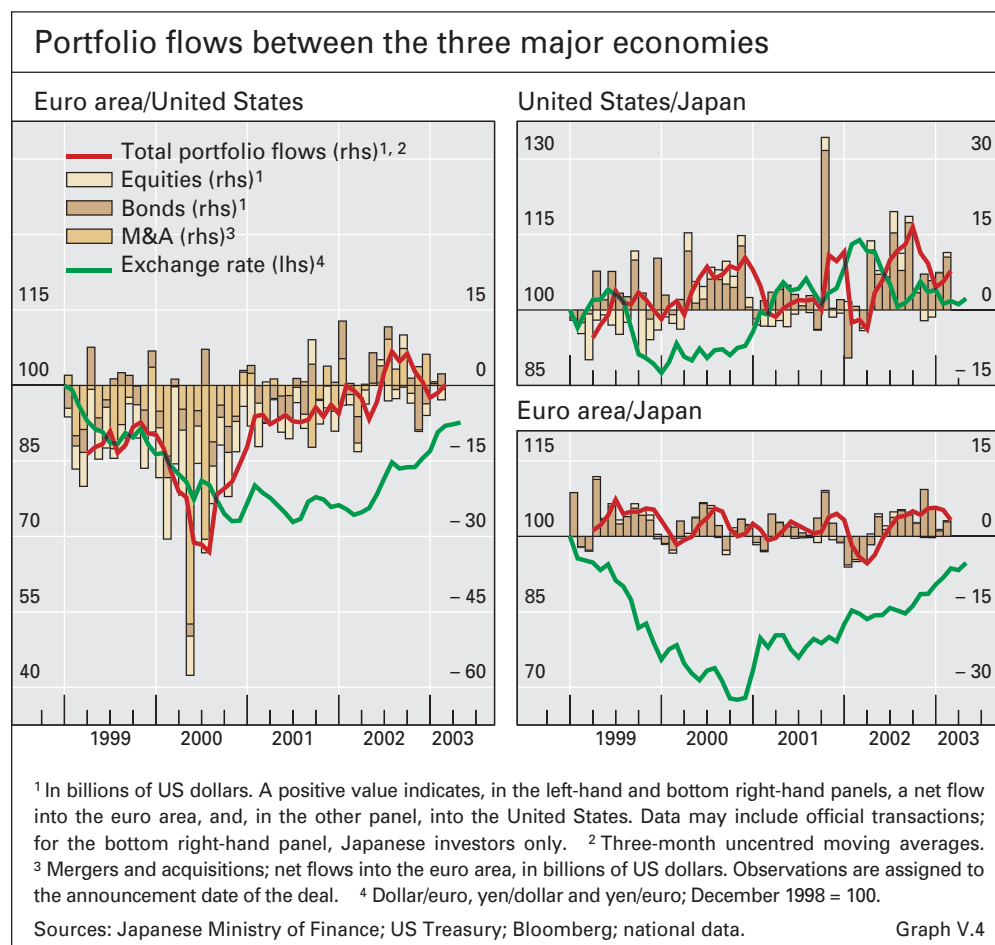
### Determinants

Substantial change in driving forces

The period under review was marked by a substantial change compared to earlier years in the forces driving the major exchange rates. To better understand the determinants of the dollar's decline in 2002, it is useful to recall the factors that had contributed to its strength between the mid-1990s and 2001.

High US productivity growth, large capital flows and dollar appreciation until 2001

During this earlier period, high actual and expected productivity growth in the United States had underpinned a rapid increase in investment and an exceptional rise in US equity prices. The prospects of higher returns in the United States had helped to draw in large portfolio flows, especially into equities and corporate bonds, as well as foreign direct investment (FDI) flows. These capital inflows had fuelled a sizeable appreciation of the dollar (Graph V.4), which in turn had weakened the current account balance. Admittedly, over the course of 2001, this investment boom had gradually come to a halt, alongside sharply falling profits and decelerating economic activity in the United States. The markets for US stocks and risky corporate bonds had also started to fall, with investors turning their focus away from equities back to safer portfolio choices such as higher-quality corporate bonds, agency debt and government debt (see Chapter VI). Gross capital flows to the United States had slowed down. Nonetheless, net private portfolio and FDI flows from the euro area had continued to be positive, as growth prospects in the United States were



still perceived to be better than those in the euro area. As a result, the dollar had continued to advance.

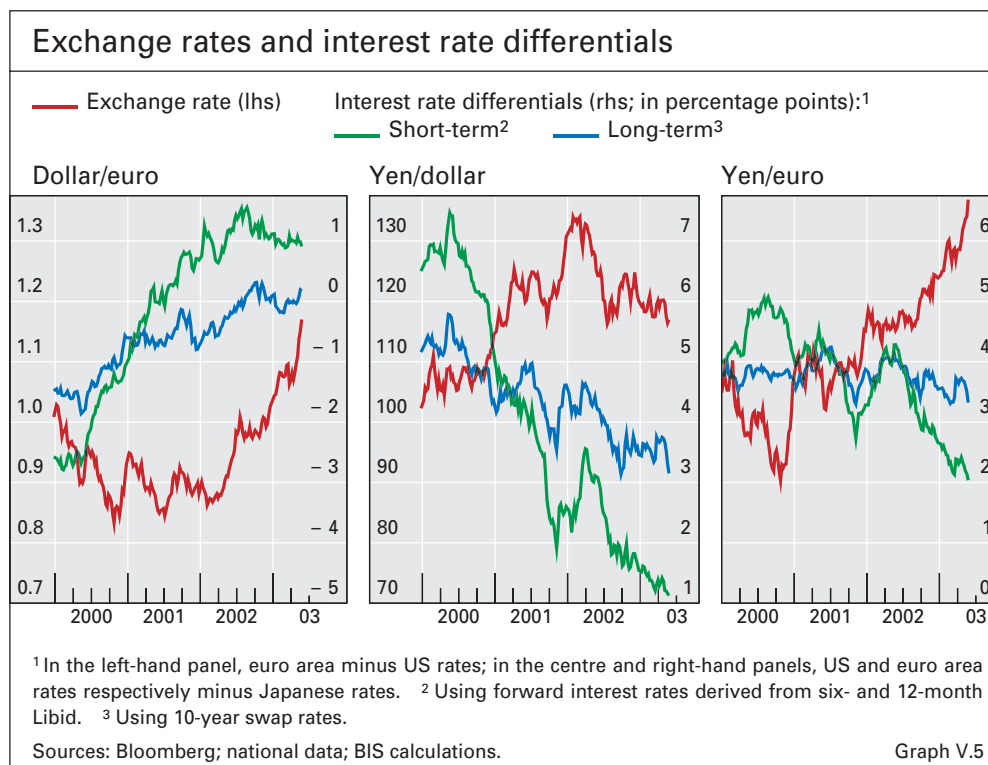
By contrast, in the first half of 2002, both the direction and the composition of capital flows changed significantly, as confidence in the US financial markets deteriorated further. This change in sentiment occurred primarily against the backdrop of the less robust than expected economic recovery and the revelation of a series of corporate accounting irregularities, which raised investors' concerns about the reliability of corporate financial statements and the extent of their risk exposure. In addition, restrictive changes in US trade policy were interpreted by the markets as suggesting increasing official concern about the US current account deficit. On a net basis, private portfolio and FDI flows from the euro area to the United States became negative. Moreover, international investors shifted still further away from portfolio equity investment and FDI into safer assets.

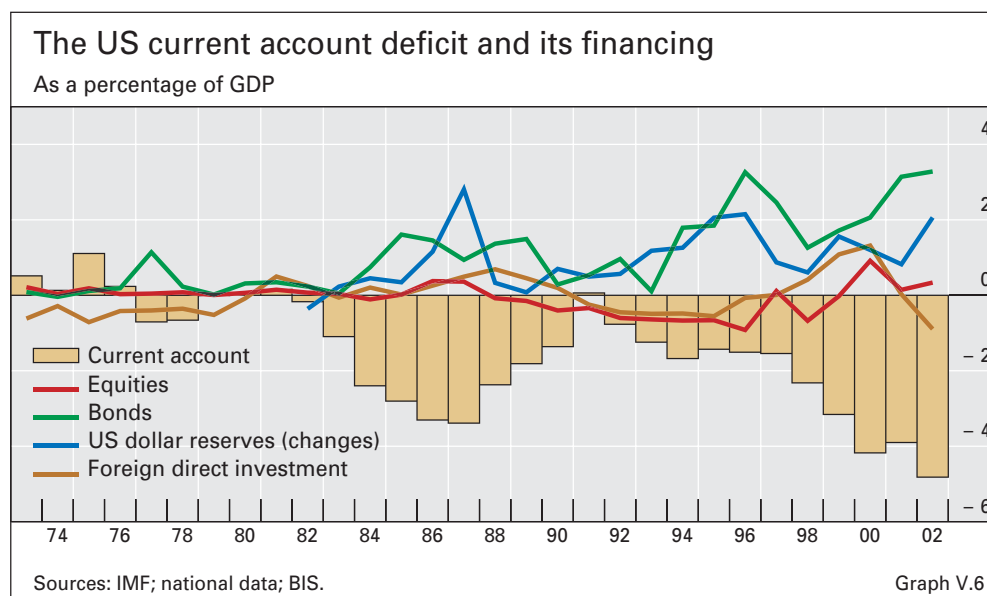
Capital shifted to safer assets in 2002 amid further deterioration in market sentiment

With the potential returns on risky US stocks no longer a dominant consideration, expected growth differentials, which had for a long time underpinned capital flows into the United States as well as the dollar's strength, ceased to exert such an influence. Instead, interest rate differentials seemed to re-emerge as a major determinant of capital movements and hence exchange rate changes. A significantly positive correlation between short-term interest rate differentials and associated exchange rate movements could be observed across a considerable number of currency pairs. This marked a notable difference from the situation in earlier years.

Interest rate differentials gained importance

Having the highest interest rates among the three major economies, the euro area was the prime destination of this yield-driven shift in capital flows, underpinning the euro's appreciation (Graph V.5). The positive correlation in

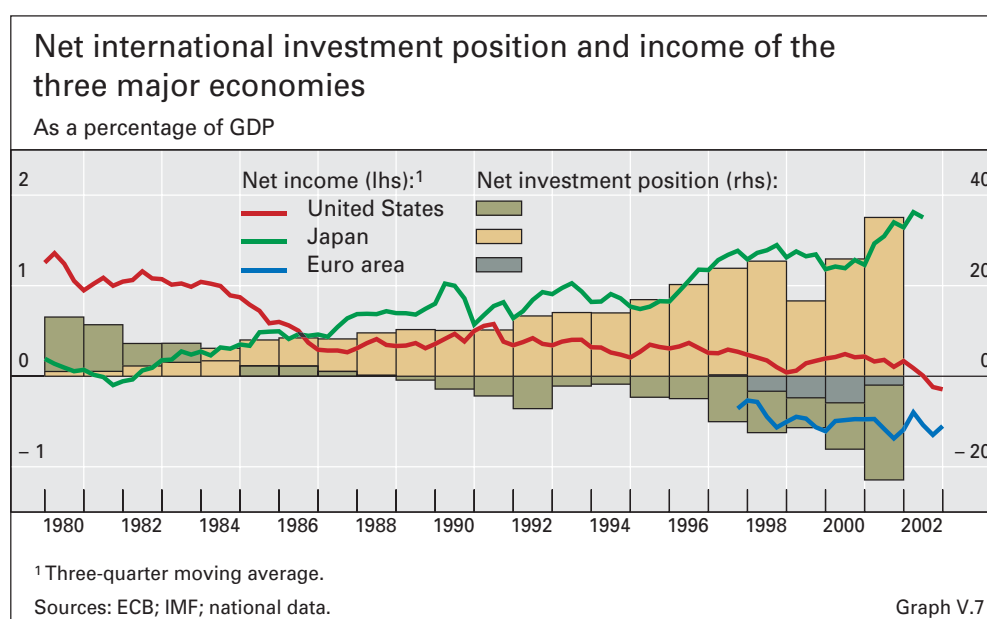




2002 between the dollar/euro exchange rate and the corresponding short-term interest rate differential was at its strongest since the introduction of the single currency. The yen's relative robustness against the dollar is also consistent with the narrowing of its negative interest rate differential vis-à-vis the United States.

The above-mentioned reduction in private capital flows to the United States and the change in their composition weighed more heavily on the dollar in the light of the still widening US current account deficit. In 2002, the deficit reached 5% of US GDP (Graph V.6), and net foreign liabilities for the first time exceeded 20% of US GDP (Graph V.7). These developments were given greater weight for several reasons. First, the share of the US deficit financed by FDI fell markedly, while the portion of official dollar reserves, mostly concentrated in Asian countries, rose considerably (Table V.1). This

The US current account deficit returned to the spotlight



pointed to the private sector's growing reluctance to finance the US current account deficit, thereby making the dollar more vulnerable to shifts in sentiment. Second, looking ahead, the deficit seemed likely to widen further given that in early 2003 the United States was still growing faster than most of its trading partners. Third, the change in the composition of US spending was not interpreted positively by market participants. While household spending remained high, investment declined; thus, to the extent that overall US domestic demand fell, a rising fiscal deficit filled the gap. This in turn led to concerns about a "twin deficit" problem (see Chapter II), bringing back memories of the 1980s.

Annual changes in official foreign exchange reserves							
In billions of US dollars							
	1997	1998	1999	2000	2001	2002	<i>Memo: Amounts outstanding at end-2002</i>
	At current exchange rates						
Total	49.8	27.0	138.6	154.7	111.7	351.4	2,392.3
Industrial countries	-18.6	-32.8	52.1	54.7	2.9	108.1	887.8
United States	-7.5	5.2	-3.8	-0.9	-2.3	4.8	33.8
Euro area	10.6	-32.9	-39.2	-9.4	-10.8	8.0	215.8
Japan	0.5	-4.7	74.5	69.5	40.5	63.7	451.5
Asia	22.6	62.8	79.0	52.5	76.0	173.3	943.8
China	34.9	5.1	9.7	10.9	46.6	74.2	286.4
Hong Kong SAR	29.0	-3.2	6.6	11.3	3.6	0.7	111.9
India	4.6	2.6	5.0	5.3	8.0	21.7	67.0
Indonesia	-1.7	6.3	3.8	2.0	-1.2	3.2	30.3
Korea	-13.5	32.3	21.7	22.2	6.6	18.3	120.8
Malaysia	-6.1	4.7	4.9	-1.0	1.0	3.7	33.3
Philippines	-2.8	2.0	4.0	-0.2	0.4	-0.3	13.0
Singapore	-5.6	3.5	1.9	3.4	-4.8	6.5	81.4
Taiwan, China	-4.5	6.8	15.9	0.5	15.5	39.4	161.7
Thailand	-11.5	2.7	5.4	-1.9	0.4	5.7	38.0
Latin America <sup>1</sup>	11.4	-9.8	-8.8	2.1	-0.3	4.2	140.1
Argentina	4.4	2.3	1.6	-1.7	-9.9	-4.1	10.4
Brazil	-7.5	-8.2	-7.8	-2.3	3.2	1.7	37.4
Chile	2.3	-2.0	-1.1	0.5	-0.6	0.8	14.8
Mexico	9.0	3.3	-0.5	4.2	9.2	5.5	49.9
CEE <sup>2</sup>	5.5	6.6	1.7	19.1	12.7	36.4	146.1
Other countries	29.0	0.0	14.7	26.2	20.5	29.4	274.5
	At constant exchange rates <sup>3</sup>						
Total	109.4	24.6	178.7	190.7	141.0	268.4	2,395.2
Dollar reserves	74.0	49.0	145.8	115.5	82.9	219.8	1,751.4
Non-dollar reserves	35.4	-24.4	32.9	75.2	58.1	48.6	643.8

<sup>1</sup> Countries shown plus Colombia, Peru and Venezuela. <sup>2</sup> Central and eastern Europe: Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Russia, Slovakia and Slovenia. <sup>3</sup> Partly estimated; valued at end-of-period exchange rates.

Sources: IMF; national data; BIS estimates.

Table V.1

That heightened attention was being paid to the US current account deficit was evident from the timing of the turn in investor sentiment against the dollar in early 2002, which coincided with the introduction by the US administration of new barriers to steel and agricultural imports. This development was interpreted by market participants as being suggestive of official concern about strains in the US tradable sectors. The issue of the sustainability of the US current account deficit will be taken up in the last section, which draws some tentative conclusions based on a historical analysis of current account adjustments in a range of industrial countries.

## Developments in other foreign exchange markets

### *Industrial country currencies*

Yield differentials and economic performance also played a role in ...

International investors' pursuit of low-risk yield was also mirrored in the development of several other industrial country currencies. The correlations of their exchange rates with the corresponding interest rate differentials turned clearly positive in 2002, albeit to varying degrees. The interest rate advantage that these currencies enjoyed was underpinned by the performance of their respective economies. The relationship between interest rate differentials and exchange rate movements also became tighter because of the return of leveraged speculative players to the foreign exchange markets. Macro hedge funds in particular were drawn in as a result of the lacklustre performance of stock markets.

... the development of sterling ...

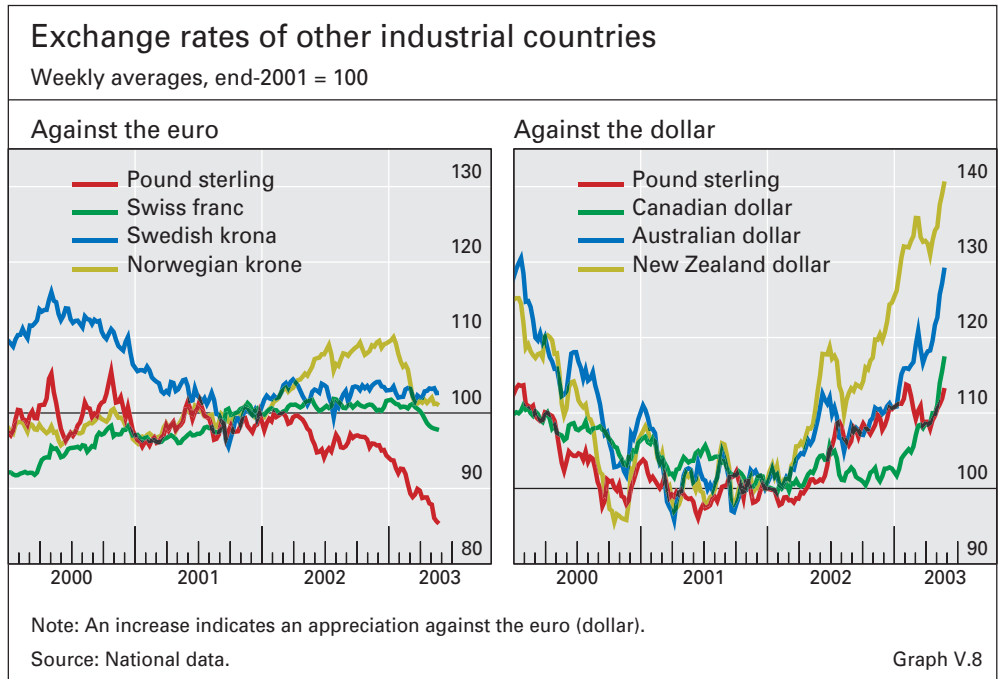
Among non-EMU European currencies, the development of the pound sterling and the Swedish krona provided two examples of the influence of yield differentials. Buoyed by comparatively high interest rates and strong UK economic growth, sterling gained 15% vis-à-vis the dollar, rising from \$1.43 in January 2002 to over \$1.65 in early February 2003 (Graph V.8). Against the euro, sterling registered some losses, given its smaller interest rate advantage and the single currency's upward momentum. The pound weakened across the board after the largely unexpected February 2003 interest rate cut by the Bank of England, which reduced the yield advantage and prompted market participants to reassess domestic economic conditions. In April and May, the pound rebounded to \$1.62, but depreciated further against the euro. In Sweden, robust economic performance and monetary tightening in the first half of 2002 took short-term interest rates higher than even their UK counterparts. Against this background, the krona recovered on average by 8% from its 2001 lows of around 10 to the euro and stabilised in the range of 9.0–9.4. The evolving prospects for EMU entry also played a role in shaping the development of the krona during the period under review.

... the Swedish krona ...

... and the Australian, Canadian and New Zealand dollars

The striking revival of the Australian, Canadian and New Zealand dollars was similarly illustrative of the increased prominence of nominal yield differentials as a driver of exchange rate movements. With a buoyant economy and a sizeable and growing interest rate advantage over its US counterpart, the Australian dollar advanced by more than 25% between January 2002 and mid-May 2003 and broke above the \$0.65 level last seen in early 2000. The New Zealand dollar, with yet higher yields, staged an even





stronger recovery during the same period, rising by 35% to over \$0.57, a level last seen in early 1998. The upturn of the Canadian dollar appeared to start later and was more modest in absolute terms, reflecting the relatively small though also widening yield advantage. Even so, by March 2003 the currency had recouped all the losses incurred since late 2000. Rapidly rising commodity prices might have provided some extra support: for the first time in several years, the traditional positive correlation with commodity prices reasserted itself across all three currencies.

A variation on this theme of yield advantage was the use of carry trade strategies, which became attractive given the low interest rate environments in the three major economies and Switzerland during the period under review. A particularly vivid example of the use of such strategies could be seen in the case of the Norwegian krone, whose short-term interest rates ranked high among industrial and even some emerging market countries. Market commentary suggested that hedge funds and other international investors were borrowing funds in euros and investing them in short-term Norwegian paper. Against this background, the krone strengthened significantly against the euro (11%) and even more against the dollar (29%) throughout 2002. It peaked in January 2003 but then gave up much of its gains by March, as carry trades were quickly unwound following the decision by the Norwegian central bank to cut interest rates. Carry trades were also said to have been a catalyst for the rapid recovery of the Australian, New Zealand and, more recently, Canadian dollars.

Until March 2003, a notable exception to this association between currency strength and interest rate advantage was the Swiss franc. The franc continued to be robust against the euro and posted sizeable gains against the dollar, despite low and declining yields and relative economic weakness. The bouts of franc appreciation against the euro throughout 2002 coincided

Interest rate environment was conducive to carry trades

The Swiss franc was an exception, driven mainly by safe haven flows

with economic and geopolitical events that prompted a deterioration in sentiment towards the dollar and financial markets in general. The tightening of the franc's correlation with gold price movements in 2002 was also suggestive of the currency's role as a safe haven. In nominal effective terms, the franc was about 15% above its recent low in 2000, posing challenges to monetary policy in a sluggish economic environment (see Chapter IV). This situation stood in sharp contrast to the scenario three years ago, when the weak franc and its inflationary implications had been the main concern of policymakers. Nevertheless, the upward pressure on the franc was seen to be counterbalanced by the Swiss National Bank's policy stance. The franc declined by 3% against the euro in the two months following the policy rate cut by the Swiss monetary authorities in March 2003.

#### *Emerging market currencies*

Global economic prospects and various specific domestic factors exerted a considerable influence on emerging market currencies during the period under review. The search for yield by international investors also played a role in some cases.

Significant declines in Latin American currencies in 2002

Domestic factors dominated in Latin America, where several currencies experienced significant declines against the background of economic and/or political turmoil (Graph V.9). The depreciation of the Brazilian real accelerated in the months leading up to the October 2002 presidential election, reflecting doubts at the time over the future course of economic policies. In Venezuela, the bolívar, which was floated in early 2002, was further undermined later in the year by heightened political unrest and an oil strike, leading to the subsequent introduction of exchange controls. In the aftermath of the Argentine devaluation, financial distress prompted the Uruguayan authorities to allow the currency to devalue. Apart from regional factors, uncertainty over US and global economic prospects also had some impact. The Mexican peso, for instance, retreated from its highs in early 2002 to touch historical lows in March 2003, amid concerns about the implications of a delayed US recovery for Mexican exports and the economy. Doubts over global prospects also weighed on the Chilean peso.

Asian currencies generally strengthened or remained stable

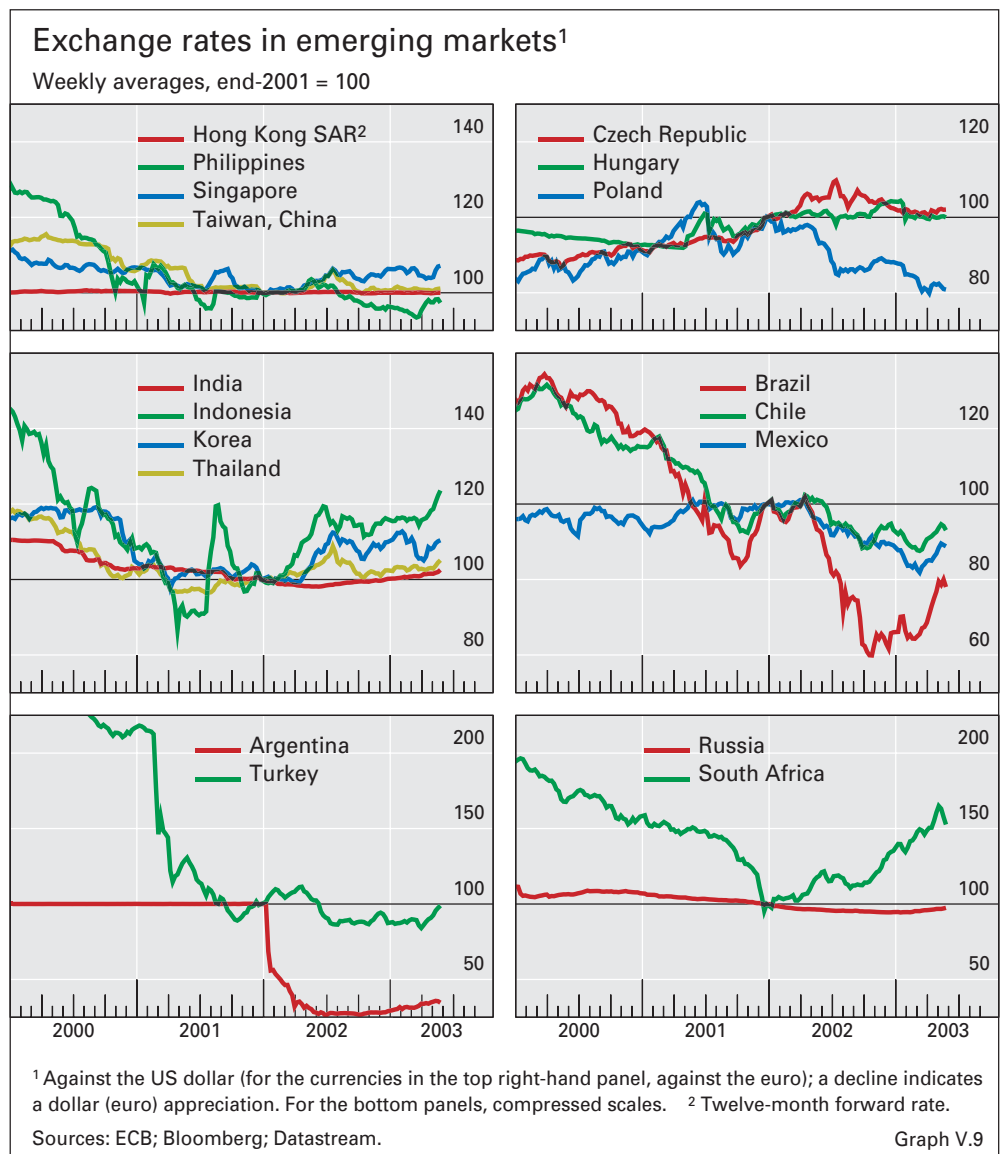
In contrast, Asian currencies generally strengthened or remained broadly stable against the US dollar, reflecting in part the relatively strong economic performance of the region. The development of the yen/dollar exchange rate also played a role. Some currencies, in particular the renminbi and, to a somewhat lesser extent, the rupee, tracked the US dollar very closely (Table V.2). The sizeable accumulation of official reserves in China and India appeared consistent with a policy preference to resist large appreciations. Against this background, the effective weakening of the renminbi in tandem with the US dollar raised some concerns among economies competing with China's exports. Other currencies, in particular the won, followed the dollar less closely than in previous years. Overall, during the period under review Asian currencies appeared to be somewhat less volatile in nominal effective terms. The observation that some Asian currencies absorbed less of the dollar's decline than the yen could well have some implications for prospective US

current account dynamics (see below). Apart from economic factors, security concerns in the region also exerted some influence over currencies such as the won, the rupiah and the Philippine peso.

At the same time, the yield differential and carry trade theme also found resonance among some emerging market currencies. For example, the rand, which had depreciated sharply in late 2001 and early 2002, recovered all its losses by March 2003, supported by its substantial interest rate advantage vis-à-vis most major currencies as well as the rising price of gold. Following previous declines, the Brazilian real also appeared to benefit from investors' preference for yield in 2003, as uncertainty over the new administration's economic policy began to dissipate. The real's appreciation accelerated markedly in March 2003.

High yields and carry trades also played a role

Some emerging European currencies were also favoured, given their relatively high interest rates and the general optimism related to EU accession. However, the resultant rapid currency appreciation provoked policy reactions (see Chapter III). For instance, the Hungarian authorities intervened and cut



Exchange rate volatility <sup>1</sup>						
	Bilateral <sup>2</sup>			Effective <sup>3</sup>		
	1995–96	1999–2001	Jan 2002– May 2003	1995–96	1999–2001	Jan 2002– May 2003
China	0.6	0.1	0.2	4.1	3.6	4.1
Hong Kong SAR	0.3	0.2	0.2	4.7	4.8	5.4
India	7.6	3.4	1.5	9.1	6.1	5.4
Indonesia	2.7	22.6	9.7	6.6	23.0	10.4
Korea	3.9	7.2	8.4	5.8	8.1	7.8
Philippines	3.9	10.4	4.6	6.1	10.6	5.0
Singapore	3.8	4.2	4.4	5.2	5.5	4.6
Thailand	3.6	7.6	5.0	...	...	...

<sup>1</sup> Calculated as the standard deviation of annualised daily percentage changes over the periods indicated. <sup>2</sup> Against the dollar. <sup>3</sup> Trade-weighted.  
Sources: National data; BIS calculations. Table V.2

interest rates as the forint strengthened towards the upper limit of its trading band in January 2003. The Czech koruna's multi-year appreciating trend moderated in the second half of 2002 against the backdrop of an undershot inflation target and a series of policy rate cuts, which eventually closed the interest rate gap vis-à-vis the euro.

## Current account dynamics and exchange rate behaviour

During the period under review, the continued rise in the US current account deficit and net international indebtedness, together with the shift in the composition of the deficit's financing, raised several questions. Is the US current account deficit sustainable? If not, how might the necessary adjustments take place? And if the effective exchange rate of the dollar must decline, which currencies are likely to be most affected?

### *Adjustments of current account deficits in industrial countries since 1973*

Historical episodes of current account correction

A look at the historical experience of current account adjustments in industrial countries may serve as a preliminary guide to help answer these questions. For this analysis, only episodes in which the correction in the current account was substantial and lasting were considered (see Graph V.10 for details). Since 1973, there have been 28 such episodes.

Threshold for current account deficit and NIIP

An analysis of these episodes reveals three main common patterns. First, there is evidence of a threshold for the current account deficit as a fraction of domestic output. On average, the deficit tended to be reversed when it approached levels around 4–5% of domestic GDP. By contrast, it is difficult to find clear-cut evidence of a threshold for the ratio of the net international investment position (NIIP) to GDP. On average, deficit corrections occurred when this ratio was around 20%, but there was substantial variation across episodes.

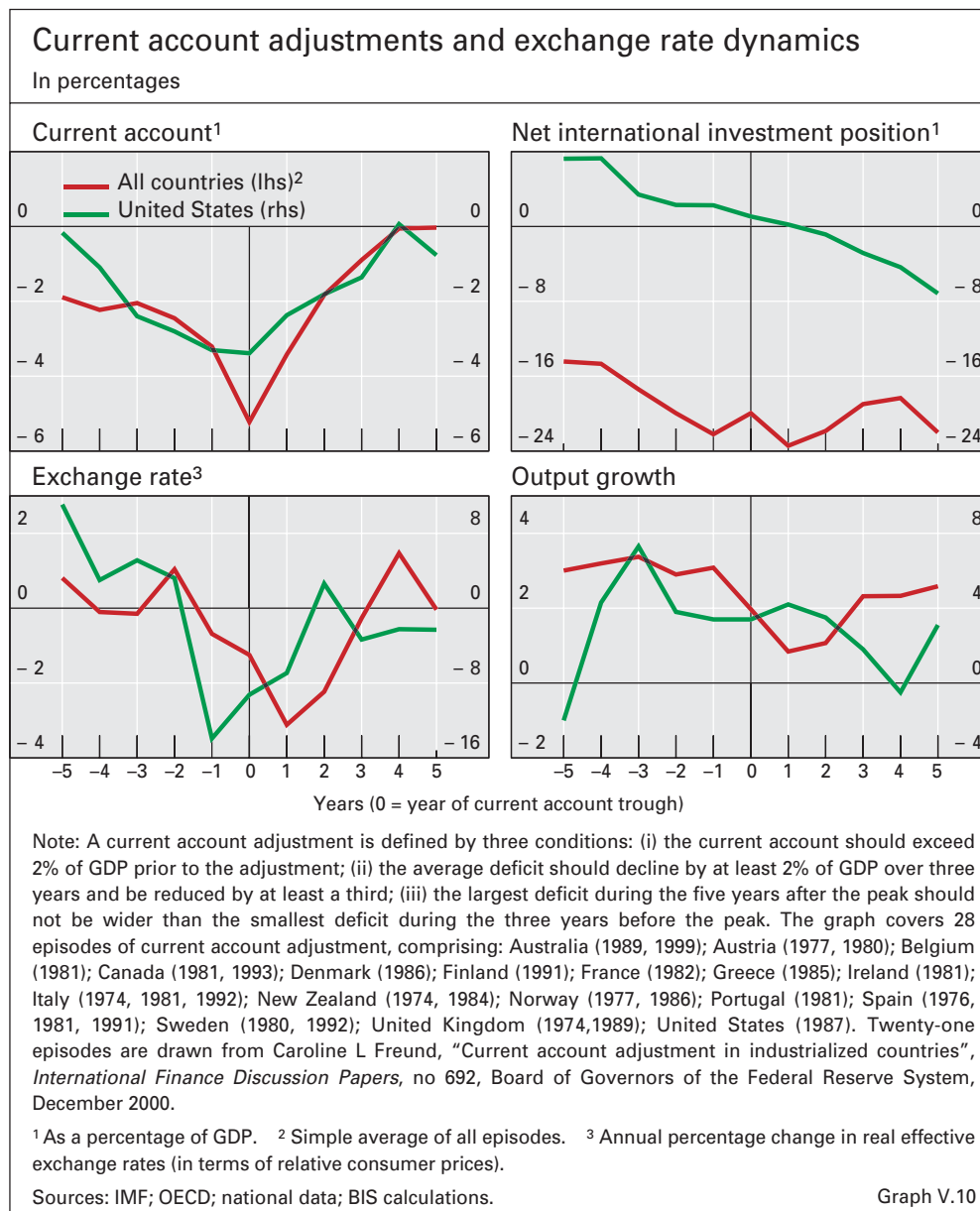
Adjustment process based less on depreciation ...

Second, the adjustment process by which a current account deficit was corrected was generally based on both a depreciation of the domestic currency and a slowdown of domestic growth. On average, the real effective

exchange rate declined by about 4% during these episodes, suggesting that the contribution of the real exchange rate to the current account adjustment tended to be small. However, the magnitude of the exchange rate correction varied considerably across episodes, and in some cases the domestic currency fell sharply. The depreciation typically started two years before the current account deficit reached its peak and continued for another year. This is consistent with a classical J-curve effect, whereby the trade balance initially worsened as the currency started to weaken, before improving after about three years.

Third, current account corrections were generally characterised by a marked slowdown of domestic growth in the two years around the peak of the deficit. On average, GDP growth dropped by 2 percentage points. The slowdown was typically accompanied by a reduction in investment, starting around the time of the peak of the current account deficit and continuing

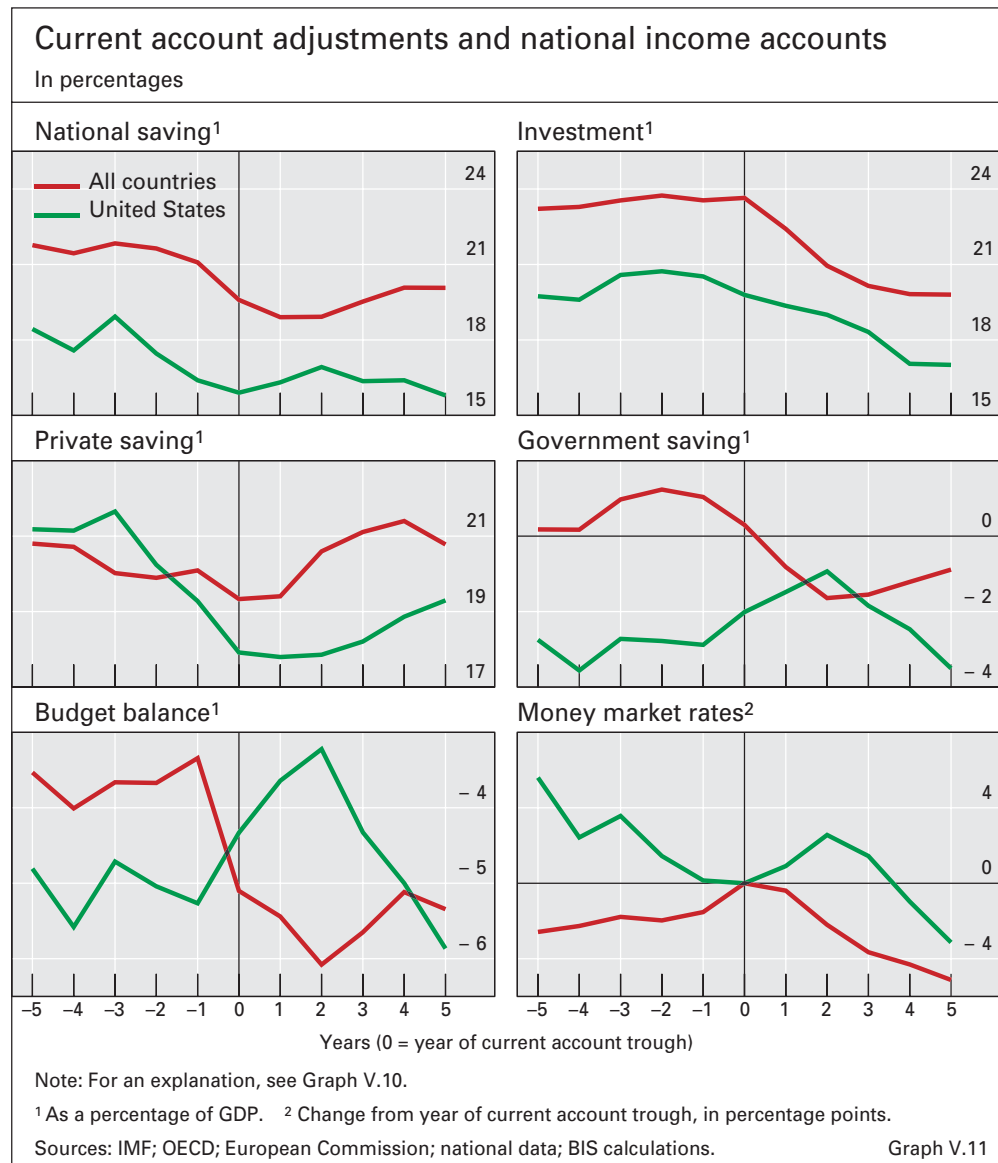
... than on growth slowdown



during the following three years. The behaviour of domestic saving was mostly driven by public saving, which on average declined as a fraction of GDP (Graph V.11). There is therefore no evidence that the improvement in the current account balance was associated with an improvement in the fiscal balance. Short-term interest rates generally appeared to follow a hump-shaped pattern, indicating that the slowdown in growth and investment was connected with a monetary tightening.

Two key differences between the United States and other countries

The analysis of these episodes of current account adjustment in industrial countries is interesting in itself but could have limitations as a guide to possible future developments in the United States. Two main considerations imply that the United States is different from other countries. First, it must be recalled that the dollar is the predominant international reserve currency and that, in consequence, residents of countries accumulating foreign exchange assets allocate a significant portion of their portfolio to dollar assets. Second, the United States has benefited from a persistent yield gap between international



assets and liabilities. As a result, it has until very recently continued to receive a positive net income despite its rising international debt position (see Graph V.7). This might imply that a current account deficit could be more easily financed in the United States than elsewhere, and that the adjustment process could be different.

These two considerations therefore suggest that it may be useful to examine separately how the US current account deficit came about in the 1980s and how it subsequently came to be reversed. This analysis will be supplemented by a discussion of how circumstances today differ from those of 1987 and the effects this might have on the adjustment process.

#### *The US current account deficit reversal in 1987*

The United States started in 1983 to run increasing current account deficits, which by 1987 had reached 3.5% of US GDP. The current account deficit was mainly driven by rapid growth in domestic demand boosted by, among other things, a widening fiscal deficit and the marked rise of the dollar, which between 1980 and 1985 appreciated by more than 50% in nominal effective terms (see Graph V.1). The dollar's remarkable strength was underpinned by current and prospective cyclical positions favouring the United States relative to Japan and Germany. This led to expectations of a monetary tightening in the United States and stable or easing monetary policy in the other two countries. In addition, growing foreign investment in the United States also contributed to pushing up the dollar and widening its external deficit.

The US experience in the 1980s

The mechanism through which the US deficit was eliminated between 1987 and 1991 was broadly consistent in two important respects with that of analogous episodes in other countries (Graph V.10). One similarity is that the US deficit started to decline when it approached the typical current account/GDP threshold. A second is that the reversal was accompanied by both a depreciation of the domestic currency and some slowdown of growth.

Two similarities with other episodes ...

However, some significant differences between the US current account reversal in 1987 and other episodes also emerge. The main difference concerns the mix of adjustment mechanisms. In the case of the United States, the brunt of the correction was borne by the dollar, which depreciated much more markedly than the currencies of most of the countries experiencing a reversal. Between 1985 and 1987, the dollar fell sharply in both nominal (–35%) and real effective terms (–27%). The main counterparts to the adjustment were the yen, which appreciated by 65% against the dollar, and the Deutsche mark, which gained almost 60%. The yen's marked rise occurred against the background of very robust growth in Japan (Table V.3). The German economy grew less strongly but still outpaced the US economy during the period 1988–90.

... but the adjustment mix differed

Three factors contributed to the magnitude of the dollar's depreciation. First, the unusual extent of the dollar's rise in the first half of the 1980s had led to an overvaluation of the currency, which provided ample scope for a subsequent correction. Second, the dollar's adjustment was intensified by coordinated central bank intervention in early 1985 and the Plaza Agreement of September 1985, which indicated that some further orderly appreciation of the other major currencies against the dollar was desirable. The G5

Marked dollar correction determined by three factors

Real growth, exchange rate depreciation and the US trade balance								
	Growth rate			Exchange rate <sup>1</sup>			US trade balance by country <sup>2</sup>	
	1985–87 <sup>3</sup>	1988–90 <sup>3</sup>	2002	1985–87	1988–90	Mar 2003 <sup>4</sup>	1987	2002
China	12.2	6.4	8.0	-38.3	-22.1	-0.0	1.8	23.7
Euro area	2.4	3.9	0.8	48.3	11.2	22.3	13.6	18.9
Germany	2.0	4.4	0.2	58.1	11.3	22.3	10.1	8.2
Japan	4.0	5.7	0.3	64.5	0.1	11.8	37.1	16.1
Asia <sup>5</sup>	4.8	8.0	4.1	-4.2	2.0	2.6	15.1	11.6
Canada	3.8	2.6	3.4	-2.4	13.6	8.5	7.4	11.4
OPEC countries	...	...	...	...	...	...	8.5	7.9
Saudi Arabia	0.0	6.3	0.7	-5.9	0.0	-0.1	0.7	1.9
United Kingdom	4.0	2.7	1.8	22.7	8.9	10.5	2.1	1.7
United States	3.5	3.2	2.4	.	.	.	.	.

<sup>1</sup> Cumulative percentage changes; an increase indicates an appreciation against the dollar. <sup>2</sup> In percentages. <sup>3</sup> Annual growth rates, averages for the periods indicated. <sup>4</sup> March 2003 over January 2002. <sup>5</sup> Simple average for Hong Kong SAR, India, Indonesia, Korea, Malaysia, the Philippines, Singapore and Thailand.

Sources: IMF; OECD; national data.

Table V.3

authorities also stated that they would stand ready to cooperate more closely to encourage this. Third, the stock market crash in October 1987 and the subsequent easing of US monetary policy contributed to a further weakening of the US currency.

Output growth less relevant in the adjustment mechanism

In parallel, output growth played a less important role in the initial stages of the adjustment process in the United States in 1987 than in the other episodes. While US GDP growth fell sharply in the course of 1985, it remained fairly constant in the next few years. Growth did, however, drop from 3.5% in 1989 to -0.5% in 1991, as the current account deficit narrowed further. This pattern stands in contrast to adjustments during other episodes, when the timing of the reversal typically coincided with a fall in domestic output.

NIIP/GDP ratio also different

Another important difference between the US current account reversal in 1987 and other episodes concerns the NIIP/GDP ratio. It remained much smaller in the United States than in other countries, although the dollar fell sharply regardless.

#### *The current situation in the United States*

Three differences between the current situation and 1987

There are a number of differences between the present situation and the 1980s reversal. Broadly, they suggest that the implications of a current account correction for growth in the United States might be more significant, and those for the dollar less significant, than during the previous correction. However, virtually all of the points being made can be qualified in one way or another, suggesting that clear-cut conclusions are difficult to draw.

The role of private saving ...

One fundamental difference from the early 1980s is that the current account deficit now seems to have been driven more by a private sector (and in particular household) rather than a public sector saving shortfall (see Chapter II). If deviations of this magnitude are judged “unsustainable”, then their reversal could very easily restrain real growth while at the same



time improving the current account position. The process could differ, however, depending on whether the adjustment was initiated on the debtor or the creditor side. Should US households decide to increase their saving rate, spending would slow and interest rates would tend to fall. Conversely, were creditors to initiate the adjustment, by becoming increasingly unwilling to finance the current account deficit, the dollar would fall first and perhaps more significantly. In either case, the decline in the dollar would probably be less than in the 1980s, given the lower initial overvaluation.

Whether or not US saving patterns might be judged unsustainable by either debtors or creditors will depend on the overall level of wealth today associated in the first place with perceptions of future growth in potential. This in turn should be driven by expectations about productivity growth. The rate of growth of productivity and potential in the United States seems higher now than it was in the 1980s, which should help support growth and the dollar. With respect to domestic savers, higher wealth should make current low saving rates more sustainable, thereby underpinning domestic demand. At the same time, it remains an open question whether potential growth could have increased enough to be consistent with a private sector saving ratio remaining at the current low level for an extended period. Non-resident investors have already begun to express concerns both about future expected rates of return on dollar assets and about the risks associated with them.

The sustainability of domestic saving patterns will also depend on how the claims on future earnings growth are allocated between the domestic

US current account deficit and co-movement with the US dollar		
	US trade balance by country <sup>1</sup>	Exchange rate sensitivity <sup>2</sup>
China	23.7	0.00
Euro area	18.9	.
Japan	16.1	.
Asia	11.6	0.17
Hong Kong SAR	-0.8	0.00
India	1.8	0.01
Indonesia	1.6	0.14
Korea	3.0	0.34
Malaysia	3.1	0.00
Philippines	0.9	0.09
Singapore	-0.3	0.31
Thailand	2.3	0.30
Canada	11.4	0.14
Mexico	8.5	-0.24
OPEC countries	7.9	.
Saudi Arabia	1.9	0.00
United Kingdom	1.8	0.30

<sup>1</sup> 2002, in percentages. <sup>2</sup> Calculated as the coefficient in a regression of changes in the domestic currency/US dollar exchange rate against a constant and the yen/dollar exchange rate, from January 2002 to May 2003. A coefficient near zero (one) indicates that the currency of that country closely tracks the dollar (yen).

Sources: IMF; national data; BIS calculations.

Table V.4

and foreign sectors. The US external debt servicing requirement has risen substantially since the mid-1980s, and seems set to rise much faster in the future. The fact that an increasing proportion of the US capital stock now belongs to non-residents suggests that domestic saving propensities may have to rise to reconstitute national wealth levels.

... economic conditions in other major economies ...

A second difference between the current situation and the 1980s concerns the economic conditions in other major economies. While both Europe and Japan were growing very strongly in the late 1980s and were able to absorb the shrinking of the US current account deficit with relative ease, this is not the case today. This implies that any correction would involve a bigger adjustment on the US side. A related complication is that about half of the US current account deficit today is concentrated in countries whose currencies have closely tracked the dollar (Table V.4). As a result, currencies that are currently floating more freely (in particular the yen and the euro) might come under substantial upward pressure. Furthermore, since European and Japanese investors have very large holdings of dollar-denominated assets in the United States, a marked depreciation of the dollar could expose them to negative wealth effects. This could also slow growth, complicating the absorption problem further.

Of course, these complications would be eased if more countries were prepared to let their currencies float up as the dollar fell. Moreover, policies to spur faster demand growth outside the United States would be particularly helpful since they would both increase absorption and temper the effects of a rising currency. In a more disinflationary world than that of the 1980s, creditors should in any event bear more of the burden of adjustment. Finally, should it prove the case that non-residents' gross exposures in US dollars were in fact hedged in various ways, this too would mitigate the problem posed for creditors by currency appreciation.

... and the euro as a reserve currency

A third difference from the 1980s is that the dollar is no longer the sole reserve currency. Given highly liquid financial markets, reserves can now equally well be held in euros. That said, it may take considerable time for the euro to gain a firm footing as a reserve currency in the face of established preferences and the continuing use of the dollar as the unit of account for international trade.

In sum, there are grounds for believing that there are more downside risks to US growth and the dollar than was the case in the 1980s. Nevertheless, there are also some more positive factors, not least the possibility of significantly faster productivity growth in the United States than elsewhere. The fact that there is considerable excess capacity in the US tradable goods sector also implies that a large resource transfer might be induced by a relatively small exchange rate change.