



## US current account deficit: No reason to panic!

July 27, 2007

**Last year the US current account closed with a record deficit of USD 811 bn or 6.1% of GDP.** In 1991 it had still been in balance. A surge from 0 to 811 in only 15 years is a truly dramatic development. Nonetheless, the deficit problem has tended to fade in importance in the current economic discussion.

**A reduction of the international imbalances need not take place abruptly – as is often feared.** After all, the US current account deficit is not only due to developments in the USA but is also the upshot of investment decisions in the surplus countries.

**The US current account deficit should sink to 5 ½% of GDP in the current year and to 5 ¼% of GDP next year.** This is suggested by a model projected by Deutsche Bank Research to shed light on the US current account.

**An increase in households' saving ratio in the USA** partly for fiscal policy reasons should improve the financial balance of the private sector and cause the US current account deficit to come down in the mid to long term.

**In the surplus countries there are signs of countervailing adjustments.** For instance, a strengthening of domestic demand in Asia and stronger diversification efforts in the oil-producing countries aimed at reducing their reliance on oil revenues suggest that less capital will flow to the USA.

**The still fast expanding trade in services also points to an improvement in the US current account in the longer term.** Here, the USA is a frontrunner, which gives it a competitive edge.

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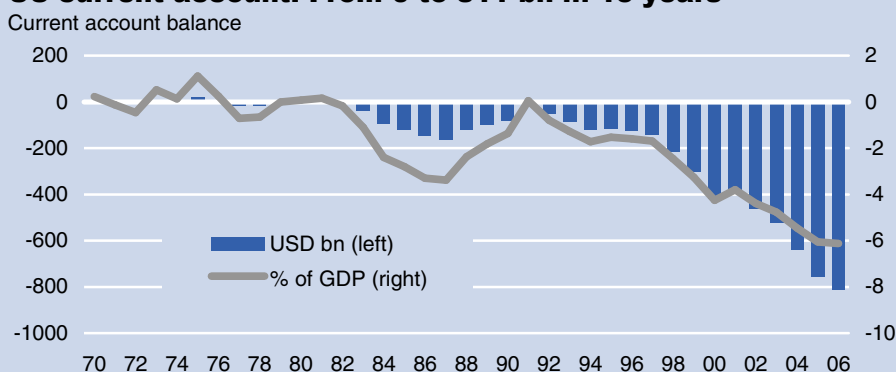
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### US current account: From 0 to 811 bn in 15 years



Source: BEA

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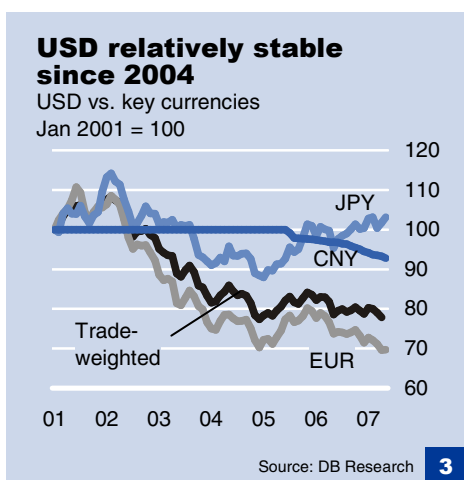
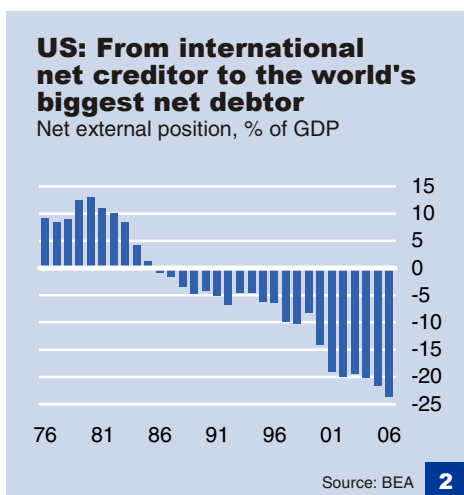
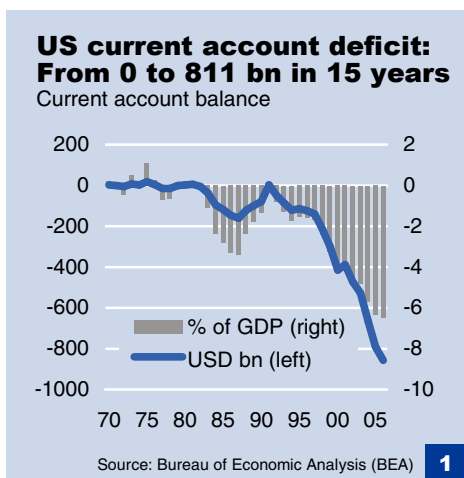
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# 1. Facts, fears, myths and legends

## Facts...

The US current account is climbing from record high to record high – unfortunately in the negative sense. For 15 years it has shown an unbroken string of deficits. In 2006, the deficit reached USD 811 bn. This was equivalent to 6.1% of US gross domestic product (GDP), which was also a record. The US current account was in balance for the last time in 1991 – thanks to the payments from Gulf War allies. Still: from 0 to 811 in only 15 years is a truly dramatic development.

The US current account deficit of USD 811 bn means that the USA consumes and invests that amount more goods and services than it produces. At the same time, this means that the rest of the world foregoes the same amount of value added which it creates (production) in favour of the USA, by investing an equivalent amount of national savings in the USA. In 2006, a net USD 2 ¼ bn was required daily. The persistent deficits have caused the USA's external debt to grow continuously. In the mid-1980s the former net creditor nation became an international net borrower and by the end of last year its net external debt had swelled to over USD 3,000 bn. This is equivalent to almost one-fourth of US GDP.



## ... fears...

In view of the magnitude it has reached, the US current account deficit is often seen as the biggest threat to the world economy. It is feared that international investors might only be willing to continue investing their capital in the USA at a much lower US dollar and/or higher dollar interest rates – with far-reaching consequences for the world economy.

However, despite the record deficit, the US dollar has been relatively steady apart from a few temporary swings. In the past years the US currency has seen an “orderly” retreat rather than a sharp slide. The depreciation of the US dollar by about 25% on a trade-weighted basis from the end of 2001 to the beginning of 2004, which went hand in hand with the reduction of the Fed Funds rate from 6 ½% to 1%, was followed by a relatively calm phase. And the fall in the value of the US dollar by about 7% versus the euro last year was probably more a reaction to the revised market forecasts for the US economy and the changed international interest rate differentials triggered by the ECB rate hikes.

Have the markets therefore become used to deficits of this magnitude? Speculation over the sustainability of the US current account deficit can resurge at any time, as past experience has shown. Nonetheless, there is a good chance that the improvement in the US current account seen in the last quarter of 2006 will continue at least in 2007 and probably in 2008, too. The weaker US growth, the probability that oil prices will not rise further and the US dollar's depreciation in the past years should help. We expect a deficit of USD 780 bn, or just over 5 ½% of GDP, in 2007, which could then sink further to 5 ¼% of GDP in 2008. This should calm the markets, at least temporarily, and take pressure off the US currency.

Moreover, we believe that the US current account deficit is less of a threat to the world economy than is often assumed by some economists. Set against the US deficits there are surpluses especially in those countries which show a strong propensity to invest capital in the USA and which therefore help to see that the US

current account deficit is financed. This is discussed in more detail in *Chapter 5*.

Nonetheless, the level and especially the inherent tendency for the US current account deficit to continue growing cannot be sustainable in the long term, although there is no generally valid measure to gauge this, as discussed in *Chapter 2*. A reduction of the US current account deficit is urgently necessary. This will be a thorny path – for the USA and no doubt for the rest of the world as well.

Simulations with a model developed by Deutsche Bank Research to shed light on the US current account (*Chapter 6*) indicate that a depreciation of the US dollar can reduce the deficit on the US current account with corresponding time lags. However, a sharp, one-off devaluation of the US dollar only has a temporary impact owing to the USA's higher import elasticity compared with its main trading partners. Real economic adjustments are therefore needed as well – or above all – to stabilise the deficit on a sustainable basis. Essential, in our view, is an increase in saving in the USA and a corresponding decrease in the surplus countries, with the attendant growth effects. However, we see good reasons to suggest that these adjustments will take place gradually and without major upheavals. This is discussed in more detail in *Chapter 7*.

### **... myths and legends**

Besides a retrospect (*Chapter 3*), which concentrates on the dramatic shifts in bilateral trade between the USA and the Asian countries, we also set out to dismantle some myths about the US current account. Some economists, for instance, see the US current account deficit as a sign of US economic strength, while others believe that it is more a reflection of US weakness. We look at this discussion in *Chapter 5*. Another myth concerns the so-called “dark matter” in the US balance of payments. This is supposed to explain the contradiction between rising US external debt and the still more or less balanced investment income account. In *Chapter 4* we show that no dark matter is needed to explain the alleged contradiction.



## Current account deficit & external debt dynamics

The net external position in period  $t$  ( $NEP_t$ ) is the stock of debt at the end of the previous period ( $NEP_{t-1}$ ) plus the current account deficit in the current period ( $CAB_t$ )

$$(1) \quad NEP_t = NEP_{t-1} + CAB_t$$

which, expressed in relation to nominal GDP ( $Y_t$ ), gives

$$(2) \quad \frac{NEP_t}{Y_t} = \frac{NEP_{t-1}}{Y_t} + \frac{CAB_t}{Y_t}$$

with

$w_t$  as GDP growth rate in  $t$  follows that

$$(3) \quad \frac{NEP_t}{Y_t} = \frac{1}{(1+w_t)} \frac{NEP_{t-1}}{Y_{t-1}} + \frac{CAB_t}{Y_t}$$

The change in the net external position is

$$(4) \quad \Delta \frac{NEP_t}{Y_t} = \frac{NEP_t}{Y_t} - \frac{NEP_{t-1}}{Y_{t-1}}$$

Allowing for (3), it follows that

$$(5) \quad \Delta \frac{NEP_t}{Y_t} = \frac{1}{(1+w_t)} \frac{NEP_{t-1}}{Y_{t-1}} + \frac{CAB_t}{Y_t} - \frac{NEP_{t-1}}{Y_{t-1}}$$

For the net external position not to change, the following must hold

$$(6) \quad \Delta \frac{NEP_t}{Y_t} = 0$$

Consequently, the level at which the net external position settles long term is

$$(7) \quad \frac{NEP}{Y} = - \frac{[1+w]}{[-w]} \frac{CAB}{Y}$$

Given a nominal GDP growth ( $w$ ) of 5% and a current account deficit ( $CAB/Y$ ) of 3% of GDP net external debt would settle at 63% of GDP.

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## 2. When is a current account deficit sustainable in the long term?

### A question to which there is no clear-cut answer

One thing should be made clear at the outset: there is no generally valid measure of how high the US current account deficit can be for it to be sustainable in the long term. Generally speaking, a current account deficit is considered to be sustainable long term if it does not lead to permanent changes in the behaviour of the economic subjects either at home or abroad. Quite different magnitudes are cited depending on the perspective from which this is examined. Ranging from 2% to 7% of GDP, they span more or less the whole gamut of possibilities. In the following we discuss the three most frequently cited hypotheses.

#### Hypothesis I: 3% of GDP

##### – Determining factor: Net external debt

The most common hypothesis on the long-term sustainability of the US current account deficit to be found in the literature is based on external debt. This hypothesis puts the current account deficit that is sustainable in the long term at the level at which net external debt no longer rises, and is therefore analogous to the considerations regarding the stabilisation of public debt, i.e. the level of budget deficit at which public debt no longer rises. One proponent of this hypothesis is for instance Fred C. Bergsten, Director of the Washington Peter G. Peterson Institute for International Economics (PIIE).

#### Current account deficit and net external debt: Two sides of the same coin

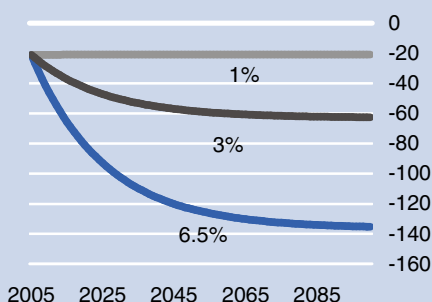
The derivation on the left shows that, barring valuation changes and assuming nominal GDP growth of 5% p.a., the US current account deficit would have to be reduced to around 1% of GDP to stabilise the USA's net external debt at its current level of just less than 25% of GDP. If, on the contrary, the current account deficits remain in the region of 6% to 6.5% of GDP, net external debt would rise to nearly 140% of GDP in the next three to four decades. Neither of these two possibilities is very realistic. Based on the fiscal criteria of the stability and growth pact, a current account deficit of 3 to 3 ½% of GDP is usually considered a realistic possibility. In this case net external debt would rise in the coming decades from currently just under 25% to just over 60% of GDP, but would then stay at this level, which is considered to be economically tolerable.

#### US net external debt just less than 25% of GDP

At the end of the 1980s the USA turned from an international net creditor into an international net borrower. Since then, the USA's net external debt has steadily risen and is currently equivalent to just less than 25% of GDP. This is still far below the levels in other countries with high current account deficits such as Australia, Portugal and Greece. These countries' net external debt is in the region of 50% to 60% of GDP. In New Zealand's case it is almost 90%. Given the dynamic with which the USA's net external debt is headed for these levels if current account deficits of 6 ½% of GDP continue to be posted each year it is easy to see the potential it has to unsettle the markets.

## Convergence of net external debt

Net external position as % of GDP given a current account deficit of X% of GDP p.a.\*



\* Assumption: nominal GDP growth of 5% p.a.  
Source: DB Research

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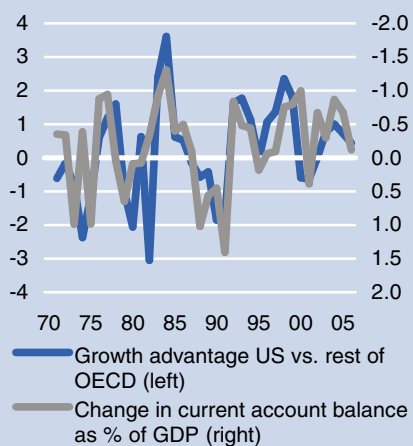
**Net external debt**

	Net external position, 2005 USD bn, % GDP		Current acc. bal. 1990-2005 % GDP, p.a.
N. Zealand	-92	-87.2	-4.9
Portugal	-112	-58.2	-4.9
Greece	-176	-57.5	-5.2
Australia	-390	-50.2	-4.3
Spain	-506	-41.7	-2.8
<b>US</b>	<b>-2546</b>	<b>-20.4</b>	<b>-2.9</b>
Canada	-151	-12.0	-0.2
Italy	-56	-3.1	0.2
Netherlands	26	3.9	4.3
France	193	8.7	0.9
Germany	528	18.3	0.1
Japan	1532	34.8	2.7

Sources: IMF, OECD **6**

**Growth differential drives US current account**

%-points (left), % of GDP (right)



Sources: BEA, OECD **7**

**US investment income account: Still positive (again) in 2006**

Nonetheless, although net external debt rose appreciably, the USA still received more interest and dividends on its foreign assets again in 2006 than it transferred abroad on its external debt. The cost of financing the USA's external debt is therefore still well below a level that would trigger adjustments in national spending and thus an improvement in the US current account. Even if net interest and dividend payments were to reach USD 40 bn, which we expect to be the case by around 2009/10, this would still be only ¼% of GDP. By comparison: in 2006, US consumers spent USD 9,269 bn while private investment amounted to USD 2,212 bn. Still, if the trend were to continue unabated, a dangerous potential could build up in the longer term.

**Hypothesis II: 5% of GDP**

**– Determining factor: Economic cycle**

A study by the US Fed comes to the conclusion that current account adjustments usually kick in at a deficit level of 5% of GDP and are accompanied by an, in some cases, sharp slowdown in economic growth or even a recession and a real devaluation by 10% to 20% over a period of about three years<sup>1</sup>. According to the study, current account deficits are usually built up in the industrialised countries in economic boom phases if growth exceeds trend growth and that of the main trading partners, and correct during an economic downswing. This suggests that in the industrialised countries current account adjustments are mostly a function of economic cycles.

The growth differential is certainly an important factor explaining the development of the US current account, as we will be discussing later. Still, it would not be justified to derive a threshold of 5% of GDP for a US current account deficit that would be sustainable in the long term from the development of the current accounts of other countries with high deficits such as Australia and New Zealand. Given its sheer size and the role of its currency as a reserve currency, the USA is not comparable with smaller countries. Moreover, the US current account deficit already reached the "threshold" of 5% of GDP four years ago and has grown continuously since then to over 6% of GDP without triggering the current account adjustments observed in other industrialised countries.

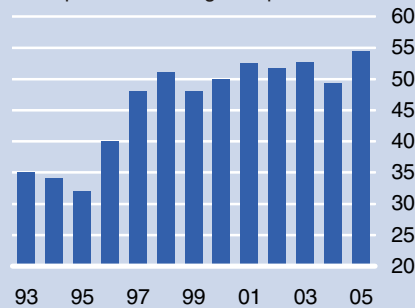
But this is precisely where the problem lies. In the industrialised countries that were studied the current account deficits correct in phases of weak growth. However, in the USA this is only true to some extent since a part of the deficit is structural. Import elasticity in the USA is higher than that of its main trading partners, with the result that the US balance of trade deteriorates even if the rates of growth are the same<sup>2</sup>.

<sup>1</sup> See Feund, C.L. (2000). Current Account Adjustment in Industrialized Countries. Board of Governors of the Federal Reserve System. International Finance Discussion Papers 692.

<sup>2</sup> Import elasticity is the ratio of the percentage change in imports to the percentage change in macroeconomic growth. The higher US import elasticity means that the US trade balance deteriorates even if the rate of growth in the US and in its main trading partners is the same. This phenomenon is referred to in the literature as the Houthakker-Magee asymmetry. See Houthakker, H. and S. P. Magee (1969). Income and Price Elasticities in World Trade. Review of Economics and Statistics 51(2).

### Weight of US equities in global portfolio has risen strongly since 2003

US equities as % of global portfolio

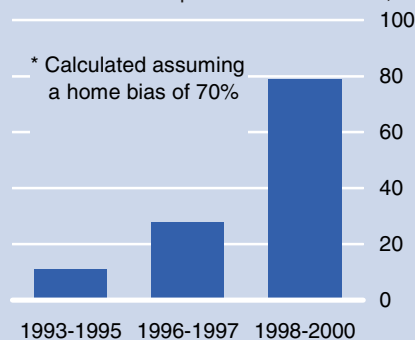


Sources: Economist, Mann (2003)

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### External global portfolio investments have mostly flowed to the US of late

US share of new portfolio investments\*, %



Source: Mann (2003)

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### Hypothesis III: 2 to 6% of GDP

#### – Determining factor: Portfolio allocation

Another concept for determining long-term sustainability is based on net capital inflows and thus on the portfolio decisions of international investors. This approach has been developed and refined above all by Catherine L. Mann<sup>3</sup>. For the USA's present capital needs to be met and for the extensive capital inflows into the USA to be sustained international investors must be willing to buy US assets on a corresponding scale at current prices. If this is not the case, prices must fall and yields rise. In this way the portfolio allocation and especially the new portfolio investments of international investors determine how sustainable the current account deficit is long term.

According to portfolio manager surveys conducted by the Economist magazine, the weight of US equities in the global equity portfolio was relatively constant from 1993 to 1995 at 30% (this more or less matches the US economy's contribution to global GDP) and then rose sharply between 1995 and 1997 to around 50% (which at that time more or less matched the US equity market's share of global market capitalisation). The figure is currently around 55%, whereas the USA's share of the global equity market had sunk to 38% by the end of 2006 in the wake of the rapid growth of the emerging equity markets. For the US dollar to remain stable, international investors would need to continue investing over 80% of their new portfolio investments in the USA as they have been doing since the end of the 1990s, which is relatively high by historical standards. If this were the case, financing the US current account would be no problem and a deficit in the region of 5-6% of GDP would therefore be sustainable in the long term. However, if the share of new investments were to fall to around 40% (the USA's current share of global equity market capitalisation), model calculations indicate that, in this case, a deficit of just barely 3% would be sustainable in the long term. If the USA's share of new investments fell to 30% (which would correspond to the USA's weight in the world economy), even current account deficits of over 2% of GDP would be critical.

#### Portfolio investments also hinge on risk-return considerations

While benchmark considerations are certainly likely to play a role in the asset allocation of global portfolios, and international investors will therefore also orient their investments in the USA to the USA's weight in the world economy, risk-return considerations are an equally important – if not even more important – motive for international investors' portfolio decisions. The increasing globalisation of the capital markets has certainly made the financing of the US current account deficit easier and thus contributed to its growth or made this possible.

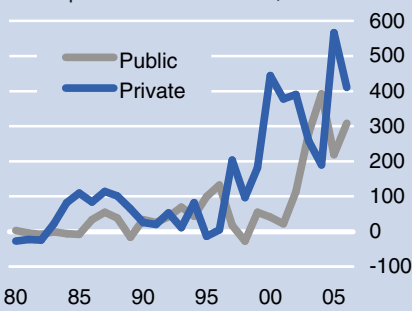
#### Private capital inflows are only one side of the coin

Private capital inflows are usually the more important component in financing the US current account deficit. However, more recently, with the accumulation of huge foreign exchange reserves in countries in Asia (China) and the Middle East (oil exporters) the weight of capital inflows from abroad from the public sector has increased. Last year, the financing of the US current account deficit was split more or less evenly between private and public sources; in

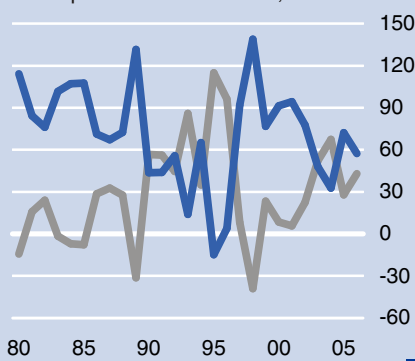
<sup>3</sup> See Mann, C.L. (1999). Is the U.S. Trade Deficit Sustainable? and Mann, C.L. (2003). How Long the Strong Dollar? In Bergsten, C.F. and J. Williamson. (Ed.). Dollar Overvaluation and the World Economy.

**Roughly equal private and public financing of current account deficit in 2006**

Net capital flows into the US, USD bn



Net capital flows into the US, share in %



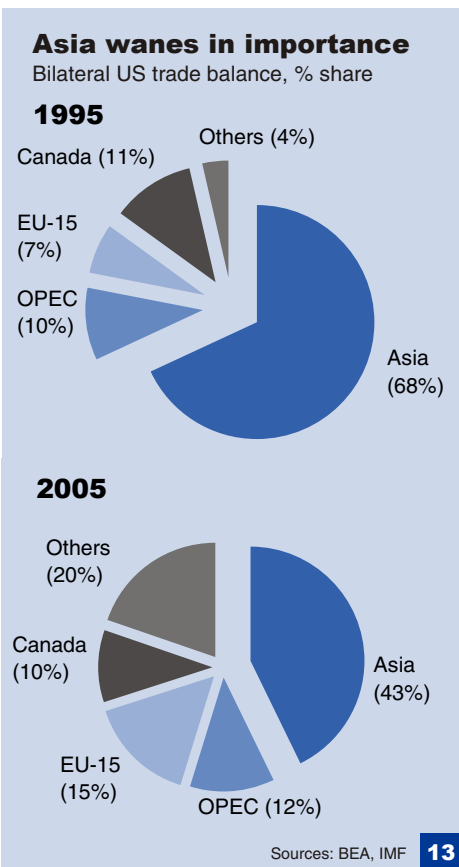
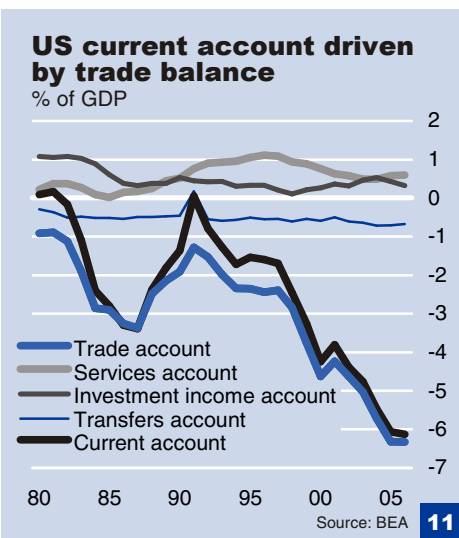
Source: BEA **10**

2004, public capital had contributed as much as roughly two-thirds to financing the US current account deficit. The public capital inflows into the USA are certainly not motivated by altruism on the part of these countries. Lacking investment opportunities at home, it makes economic sense for the oil-producing countries to invest their surpluses in the USA. Moreover, some countries in Asia, especially China, protect their currencies against appreciation in this way.

**Conclusion: No clarity about the level or about the speed of the adjustment**

There are no clear-cut criteria to determine what US current account deficit is sustainable in the long term. They are rough guides at best and, in view of the empirical evidence, are arbitrary in some cases. The argumentation with regard to the net external position cannot explain the US dollar's depreciation for instance. The portfolio approach appears convincing at first sight but has the drawback that you need to know how portfolio managers will behave in the future to determine what is sustainable in the long term. So the connection is more of a tautological nature. Neither is there any convincing concept about how fast the US current account deficit needs to be, or should be, reduced to a sustainable level. So, in our view, an orderly adjustment is likely to take a good deal longer than the period of two to three years often mooted by economists and politicians.





### 3. History

#### From 0 to 811 in 15 years

US current account deficits are not a new phenomenon. As a glance at the past shows, the US current account has been in the red since 1982. The only exception was 1991 when transfer payments by the Gulf war allies led to a swing of roughly USD 37 bn, or 0.6% of GDP. The transfer payments account and the US current account closed with a small surplus, helped also by the recession in the USA and the reunification boom in Europe. Once these factors fell away, the US current account deficits have risen more or less continuously.

#### Only the services account was still in surplus in 2006

Within just 15 years the US current account has deteriorated to a level of USD 811 bn at the last count. The current account deficit stems almost entirely from the trade balance, which has been negative since as far back as 1976.

#### US trade deficit has climbed to USD 838 bn or 6.3% of GDP

Since the beginning of the 1970s US imports have risen annually by over 11%, which is nearly two percentage points a year more than US exports. So the gap between imports and exports has been widening for three decades. In 2006, US exports of USD 1,026 bn were set against imports of USD 1,861 bn. The US trade deficit was USD 838 bn or 6.3% of US national product.

Besides the transfer payments account, which has always been in deficit, the USA posts surpluses on its services account (2006: USD 80 bn). However, they have waned in importance. While in 1995 the surplus was still over 1% of GDP, by 2006 it had fallen to 0.6% of GDP. As mentioned earlier, the investment income account still posted a surplus of USD 43 bn.

#### Appreciable shifts in US foreign trade...

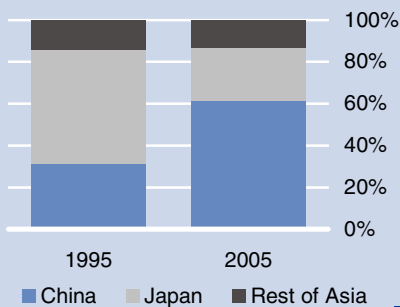
In the past 10 years there have also been appreciable shifts in US foreign trade. Merchandise trade with the Asian countries still dominates the development of the US trade balance but its importance has declined appreciably. While in 1995 trade with Asian countries still accounted for almost 70% of the US trade deficit, in 2005 it was only just over 40%. On the other hand, the EU-15's share of the deficit doubled from 7% in 1995 to over 15%. The rise in the share of the US trade deficit with the rest of world (others) was mainly due to a deterioration of the balance of trade with Latin America and Eastern Europe. While in 1995 the USA still showed a small surplus of just less than USD 8 bn in trade with the countries of Latin America, in 2005 it posted a deficit of around USD 50 bn. At the same time, the bilateral trade deficit with the countries of Eastern Europe rose from USD 1 bn to almost USD 20 bn.

#### ... with the biggest changes within Asia

The biggest changes have been in US trade with the countries in Asia. While in 1995 the USA's trade deficit with China was USD 34 bn, or just less than one-third of the total deficit with Asia, by 2005 it had climbed to USD 200 bn. Its share of the total deficit with Asia has doubled to almost two-thirds. By contrast, the bilateral trade deficit with Japan, which, at USD 59 bn or 55% of the total deficit with Asia, had dominated in 1995, has fallen to 25% (USD 82 bn).

### Drastic changes in trade with Asia

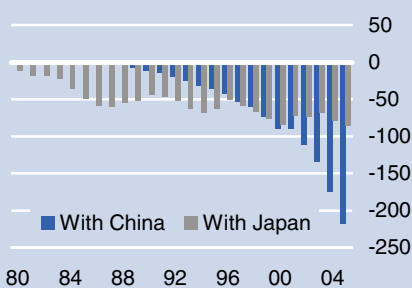
Bilateral US trade balance deficit with Asia, % share



Source: US Census **14**

### China has overtaken Japan

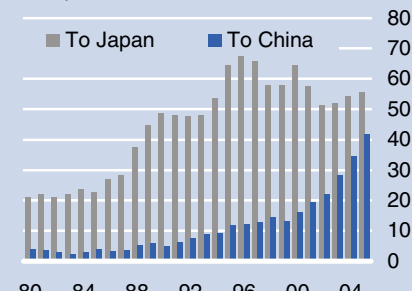
Bilateral US trade balance, USD bn



Source: IMF **15**

### Japan still the biggest Asian market for US exports

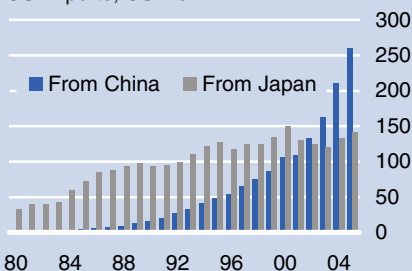
US exports, USD bn



Source: IMF **16**

### US imports from China almost double those from Japan

US imports, USD bn



Source: IMF **17**

### China is the USA's biggest trading partner in Asia

Behind this have been dramatic changes, especially from around the mid-1990s. While the trade flows between the USA and Japan rose only very modestly – in the years 1995 to 2005 US exports to Japan more or less stagnated while US imports from Japan increased by barely 1 ½% p.a.– US trade with China grew extremely dynamically. China has become the USA's biggest trading partner in Asia, relegating Japan to second place.

### Growth in US trade with China has outstripped total trade by 9 ½ percentage-points p.a. in the past decade

Between 1995 and 2005 US exports to China and US imports from China expanded at an average annual rate of over 18% and almost 15%, respectively. In each case this was about 9 ½ percentage points p.a. above the development of overall trade.

China has therefore gained hugely in importance as a market for US exports in Asia. However, owing to the low starting basis, the volume of US exports to China still lagged that of exports to Japan. In 2005, US exports to Japan were worth USD 55 bn (1995: USD 64 bn) while exports to China were worth USD 42 bn (1995: USD 12 bn). Still, it is only a matter of two to three years before China becomes the biggest market for US exports in Asia.

On the other hand, China already overtook Japan in 2000 in the country ranking for US imports out of Asia. Since then the USA has been importing more goods from China than from Japan. In 2005, US imports from China (USD 260 bn) were almost double its imports from Japan (USD 142 bn). In 1995, by contrast, Japan still led with exports to the USA of USD 127 bn as compared with USD 49 bn from China.

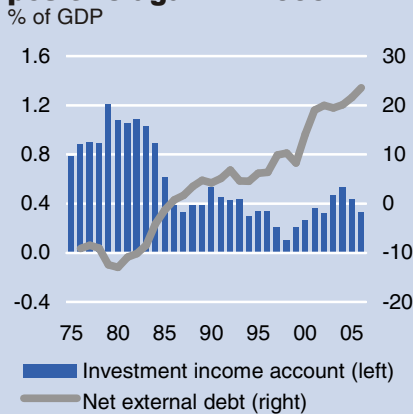
### China's exchange rate policy under pressure

One reason for China's sharply increased surpluses in trade with the USA is the Renminbi/US dollar exchange rate, which is considered to be considerably undervalued. Although China abandoned the earlier pegging of its currency to the US dollar and from mid-2005 has been managing the value of the Renminbi on the basis of a basket of currencies, in the period since then it has only appreciated by 6 ½% against the US dollar (in nominal terms); since the beginning of 2006 it has appreciated by just under 4%. Estimates taking account of the development of prices, costs and productivity suggest that the Renminbi's undervaluation versus the US dollar has widened further.

China's hugely increased trade surpluses are mirrored in the foreign exchange reserves accumulated at China's central bank. They have grown tenfold over the last ten years and meanwhile top the USD 1,000 bn mark. In 1996, they had amounted to only just over USD100 bn.

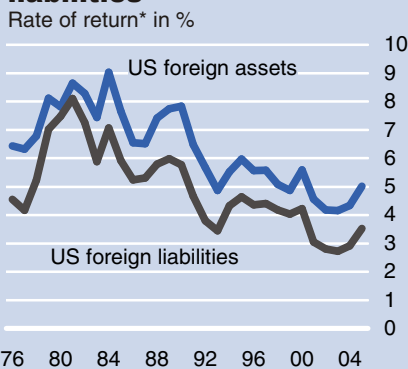
## 4. The dark side

### US investment income still positive again in 2006



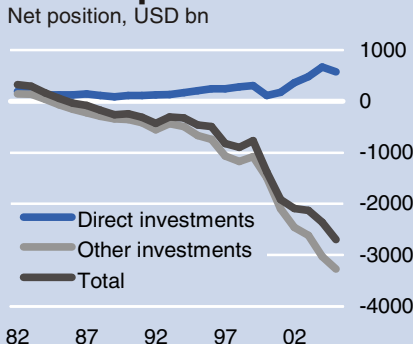
18

### Return on US foreign assets exceeds that on foreign liabilities



19

### Structure of net external position



20

### Dark matter in the US balance of payments?

While the USA's net external debt has exploded in the past years, the investment income account posted surpluses until 2006. In 2006, the USA received USD 648 bn of investment income from abroad, which was USD 43 bn more than it had to pay (USD 604 bn)<sup>4</sup>. However, this was set against external debt of USD 12,700 bn, or 102% of GDP, and foreign assets of USD 10,000 bn, or 80% of GDP. Some economists have sought to explain this phenomenon as being due to mismeasurement and understatement in the US balance of payments<sup>5</sup>.

#### Dark matter: USA internationally still a net creditor?

The advocates of "dark matter" argue that, given the surpluses on the investment income account, there must be accounting errors in measuring the USA's net external position. It is claimed for instance that the official statistics, especially for the USA's stock of foreign assets, are too low. They refer to these missing assets as "dark matter" by analogy with physical cosmology since they cannot be seen themselves but certain effects (such as investment income) suggest that they exist. Accordingly, the USA's net external debt would be appreciably lower than reported in the official statistics and the USA might even still be an international net creditor.

#### US foreign assets more profitable than US external debt

Opponents of this thesis, on the other hand, explain this, at first sight, contradictory development of the USA's net external position and investment income account by arguing that the USA's foreign assets are more profitable than non-residents' investments in the USA. If the investment income of USD 503 bn which the USA received from abroad in 2005<sup>6</sup> is set in relation to the USA's foreign assets of USD 10,000 bn, this gives a rate of return of 5%. Applying the same calculation to the USA's capital payments abroad (2005: USD 448 bn) and US external debt (USD 12,700 bn) produces a rate of return of only 3.5%. The difference in yield in the USA's favour has been almost double this level of 1.5 percentage points at times (for instance in the early 1990s). This might seem paradoxical given the tendency for interest rates to be higher in the USA.

#### The USA is an international net creditor in the case of direct investments

If the USA's external debt and foreign liabilities are divided into direct investment and other investments, the USA is still an international net creditor in the case of direct investments. US direct foreign investment, amounting to USD 2,454 bn at the end of 2005, exceeded foreign direct investment into the USA by USD 580 bn. By contrast, in the case of other investments the USA was an international net debtor to the tune of USD 3,273 bn at the end of 2005.

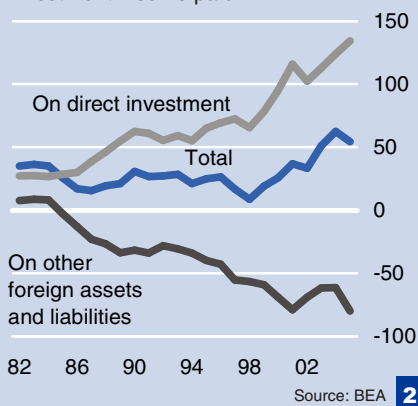
<sup>4</sup> With the announcement of the current account balance for Q1 (USD -193 bn or 5.7% of GDP) the data for the past years were extensively revised. While when the data were first released the investment income account still showed a deficit of USD 1 bn, after the revision it had a surplus of USD 43 bn.

<sup>5</sup> See Hausmann, R. and F. Sturzenegger (2006) Global Imbalances or Bad Accounting? The Missing Dark Matter in the Wealth of Nations. Center for International Developments at Harvard University, Working Paper No. 124.

<sup>6</sup> Latest year for which data on US external debt are available.

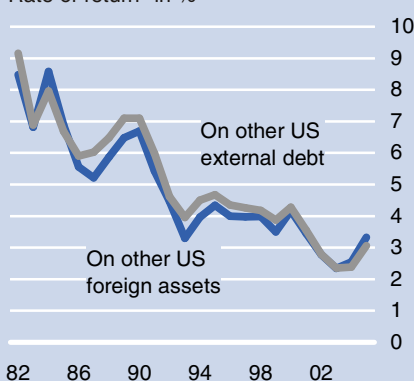
### Income from direct investments compensate higher US interest payments

Investment income received less investment income paid



### Higher return on other US external debt

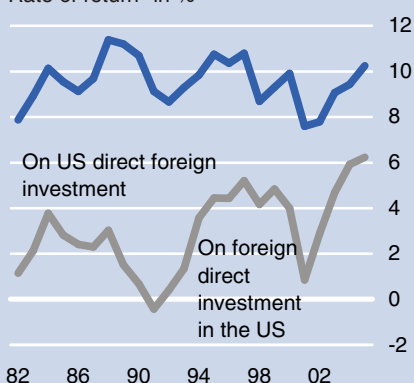
Rate of return\* in %



\* Investment income received/paid as % of US direct foreign investment/foreign direct investment in the US

### Return on US direct foreign investment 4%-points higher

Rate of return\* in %



\* Investment income received/paid as % of US direct foreign investment/foreign direct investment in the US

### Return differential negative in the case of other net investments...

If we sub-divide the investment income account in the same way, we find that the USA's net income from direct investments more than compensates the USA's net international payments on its other net external debt. According to our calculations, the rate of return on the USA's other foreign investments was  $\frac{1}{4}$  to  $\frac{1}{2}$  percentage point below the return on non-residents' other investments in the USA, which appears plausible and reflects the tendency for interest rate levels to be higher in the USA.

### ... but positive in the case of direct investments

With direct investments, on the other hand, US firms' rate of return on foreign assets was invariably – and by a large margin – higher than the rate of return which non-residents earned on direct investments in the USA. During the past 10 years the difference has been in the region of five percentage points. In 2005 it sank to four percentage points, which was a considerable narrowing compared with earlier years – in the early 1990s for instance the difference was about 10 percentage points.

Admittedly, these are very simple rough calculations. The problems in measuring the stock of direct investments should not be underrated either. There are reasons which can explain the return differential, so no dark matter is needed to explain the phenomenon discussed.

Two relatively well-known examples may be cited as anecdotal evidence. On the one hand, there is Daimler Benz's acquisition of Chrysler, which can hardly be regarded as a success. On the other, there is the US firm Coca Cola, which conducts a flourishing business worldwide with correspondingly high profit transfers to the USA. However, there is not just anecdotal evidence to explain the return differential in the case of direct investments; serious economic research is also available<sup>7</sup>:

(1) One assumption is that US firms are more efficient than foreign firms. This is suggested by the fact that, despite lower rates of investment, economic growth in the USA is stronger than in Europe and Japan. Capital productivity in the USA is therefore higher. If US firms abroad are under US-style management, while foreign firms in the USA operate as they do in their local markets, this results in a higher return on US direct foreign investments, which has been demonstrated empirically at least for the industrialised countries (on the assumption that there is no dark matter).

(2) Furthermore, US firms might have invested particularly successfully in well-managed firms abroad. This is suggested by a study by Warnock et al.<sup>8</sup>.

(3) Foreign firms in the USA tend to be younger than US firms abroad. As a result, they have had less time than the US firms

<sup>7</sup> On the following see Higgins, M., T. Klitgaard and C. Tille (2005). The Income Implications of Rising U.S. International Liabilities. Federal Reserve Bank of New York. Current Issues in Economics and Finance 11(12). Chadha, B. and T. Slok (2006). US investment Income: Vanishing Dark Matter to Exacerbate Debt Dynamics. Deutsche Bank. Exchange Rate Perspectives. Heath, A. (2007). What explains the US net income balance? BIS Working Papers No. 223.

<sup>8</sup> See Thomas, C.P., F.E. Warnock and J. Wongswan (2004). The Performance of International Equity Portfolios. Board of Governors of the Federal Reserve System. International Finance Discussion Papers 817.

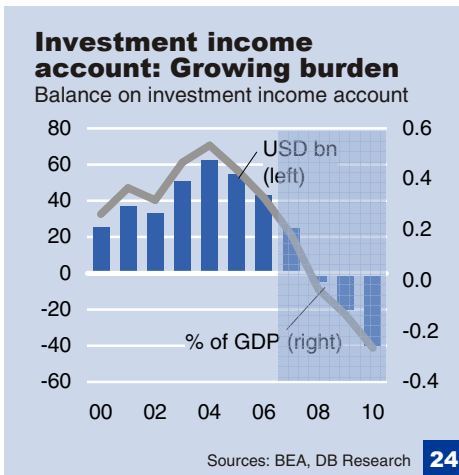
abroad to recoup their start-up costs and to consolidate their market position, implying lower returns.

(4) Likewise, the strong value of US brand names and particularly innovative US products allow higher returns on capital invested abroad by US firms.

Still, quite apart from the question of whether there is dark matter or not: the discussion of the actual level of the USA's net external position is irrelevant for current account purposes since what matters is the investment income and related payments, not the stock of foreign assets and liabilities.

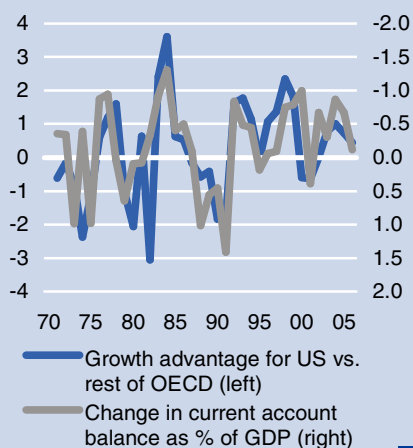
**Capital account deficit is not a serious problem by any means**

The tendency for the return differential on direct investments to decline in recent years and the continued growth in US net external debt as a result of the persistent current account deficits may well cause the investment income account to move into negative territory shortly and place an increasing burden on the US current account. According to our calculations, the investment income account could already close with a deficit in the region of USD 20 bn in 2009, rising to USD 40 bn in 2010. Nonetheless, this is still not a serious threat to the US current account. The deficit on the investment income account expected in 2010 would still only be equivalent to just over ¼% of GDP and would therefore not trigger a vicious circle – higher deficits on the investment income account leading to correspondingly higher current account deficits and rising US net foreign debt, which in turn leads to a higher deficit on the investment income account. Still, the growing burden from the investment income account could impede the US current account's correction.



### Growth differential and US current account

%-points (left), % of GDP (right)

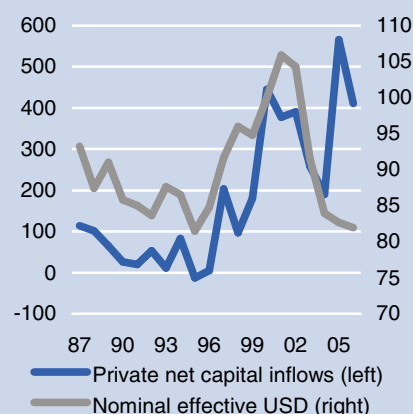


Sources: BEA, OECD **25**

### Capital inflows & the USD

USD bn (left)

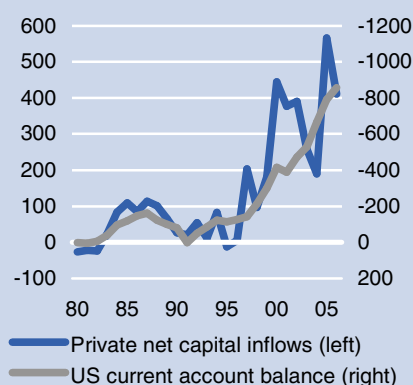
Index 2000=100 (right)



Sources: BEA, IMF **26**

### Capital account drives the current account?

USD bn



Source: BEA **27**

## 5. Current account deficit

### Strength or weakness of the US economy?

#### What drives what?

The attempts to explain the origins and growth of the US current account deficit mostly combine cyclical and structural factors. The two most frequently discussed approaches are those which attempt to explain the deficit, firstly, from a trade perspective and, secondly, from the perspective of the capital account. The fundamental question behind both theses is: What drives what? Does the current account drive the capital account or, vice versa, does the capital account drive the current account?<sup>9</sup>

#### Thesis I: Trade balance drives the capital account

Viewed from a trade perspective, the US current account deficit arose because the USA grew faster than its main trading partners. As a result, US imports outstripped US exports and the US current account moved into deficit. This development was further accentuated by the fact that the USA's import elasticity is higher than that of its main trading partners, which in the literature is referred to as the Houthakker-Magee asymmetry. This means that the US current account tends to deteriorate even if growth rates in the USA and in the rest of the world are the same.

The chart on the top left clearly shows how the growth differential and the change in the US current account deficit have moved in parallel. The stronger growth in the USA than in the other OECD countries led to a current account deficit in the mid-1970s, which then contracted due to the recession in the USA in the early 1980s. The ensuing far stronger economic growth in the USA than in the other OECD countries then caused the US current account deficit to climb to over 3% of GDP around the mid-1980s. In the early 1990s it was the recession in the USA that caused the current account deficit to decline. In 1991, the US current account then even closed with a small surplus thanks to the transfer payments from the Gulf war allies. Thereafter, with a few temporary exceptions, US growth again outpaced that of the other OECD countries. As a result, by 2006 the US current account deficit swelled to 6.1% of GDP. From this perspective the trade flows were the cause of the US current account deficits and the capital inflows needed to finance them were the resultants.

#### Thesis II: Capital account drives the trade balance

Conversely, the approach from the perspective of the capital account sees the capital flows as the cause of the US current account deficit. Owing to the attractiveness of the US economy and the expectations of higher returns capital flows into the USA, which tends to boost the value of the US dollar. As a result, imports become cheaper for the USA, so the demand for imports rises. At the same time, exports are damped and the US trade balance deteriorates. According to this theory, the capital account drives the current account.

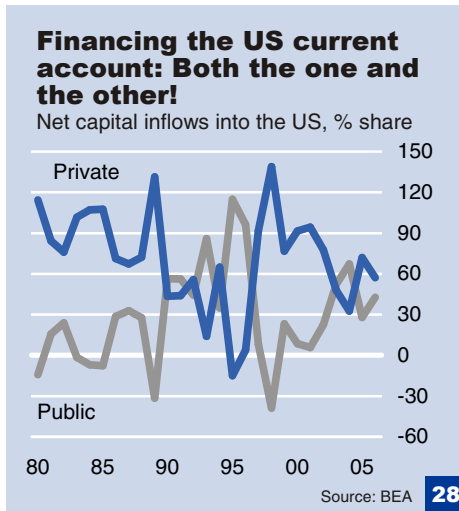
As empirical evidence it is argued that net inflows of private capital into the USA rose exceptionally strongly since the mid-1990s

<sup>9</sup> See Jarrett, P. (2005). Coping with the Inevitable Adjustment in the US Current Account. OECD Working Paper No. 54. Xafa, M. (2007). Global Imbalances and Financial Stability. IMF Working Paper No. 07/111.

parallel with the growth of the US current account deficit. However, this is not surprising since, after all, they reflect the financing of the US current account. Fed Chairman Bernanke is a prominent advocate of this theory<sup>10</sup>. He sees the high current account deficit as the result of the investment decisions of international investors.

### **US current account deficit: Strength or weakness of the US economy?**

The two views on the US current account deficit and hence the answer to the question of “What drives what?” also have a bearing on the question of whether the US current account deficit can be interpreted as a reflection of US economic strength or weakness. From the trade perspective the US current account deficit would be seen as US economic weakness. According to this theory, persistent current account deficits indicate that an economy is spending more than it produces so that it is living beyond its means, especially if – as in the case of the USA – the spending is primarily on consumption. Externally financed consumption spending, unlike investment spending, does not generate future returns and therefore does not contribute towards servicing the foreign debt. Conversely, the US current account deficit would be a sign of US economic strength if it had been driven by the capital account. In this case it would mirror the strong attractiveness of the US economy for foreign investors.



### **Both the one and the other...**

The discussion, which has been conducted for some time now, whether the trade account or the capital account is the driver cannot be answered conclusively. Important for assessing the US current account deficit is the nature of the financing, in other words whether private investors are willing to finance it or whether it is financed by public sources. However, empirical research provides no clear answer here either. If we look at the relative shares of private and public financing, we find that there were times when the deficit was financed almost entirely by private capital – for instance in the 1980s and in the second half of the 1990s when the “New Economy” euphoria propelled the US economy to the forefront as an investment target for international investors. However, there were periods, for instance in the early 1990s, when it was financed predominantly by public capital. Of late, it has been financed more or less equally by capital from private and public sources.

Both approaches have their appeal and each has a great many advocates in the literature. However, viewed in isolation, both hypotheses oversimplify. Investors’ decisions to invest their money in the USA and the decisions in the USA to invest or consume more are not taken in isolation and in a given time sequence but take place in parallel.

Although the two theses described run counter to each another, they do have one thing in common: they can both be traced back to the gap between investment and national saving.

### ***S – I = X – M: A brief excursus on national accounting***

A country’s current account balance corresponds to the difference between exports and imports (of goods, services and investment income) plus net transfers. Since, in an open economy, there is an

<sup>10</sup> See Bernanke, B.S. (2005). The Global Saving Glut and the U.S. Current Account Deficit. Federal Reserve Board. (Remarks at the Homer Jones Lecture, St. Louis, Missouri).

**S - I = X - M**

In an open economy the following applies

(1)  $Y = C + I + X - M$

where

- Y = Gross domestic product
- C = Private consumption
- I = Investment
- X = Exports
- M = Imports

X - M is thus the current account bal. since income is used for consumption and saving purposes, it follows that

(2)  $Y = C + S$

where

- S = Savings

It follows from this that

(3)  $S - I = X - M$

and, allowing for the public sector, that

(4)  $(S_{St} - I_{St}) + (S_{Pr} - I_{Pr}) = X - M$

where

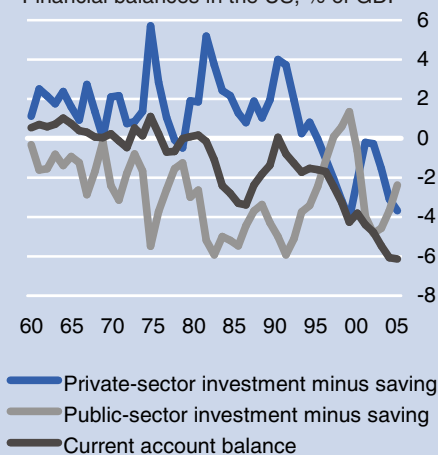
- $S_{St}$  = Government savings
- $S_{Pr}$  = Private-sector savings
- $I_{St}$  = Government investment
- $I_{Pr}$  = Private-sector investment

Hence a country's current account balance is the sum total of the financial balances of the private sector ( $S_{Pr} - I_{Pr}$ ) and public sector ( $S_{St} - I_{St}$ )

29

**Blue plus grey = black**

Financial balances in the US, % of GDP



Sources: BEA, DB Research

30

identity of investment and saving – supplemented by the external balance – the current account balance (X – M) is the difference between national saving and investment (S – I). If national saving exceeds investment, there is a current account surplus. Conversely, if investment exceeds saving, there is a current account deficit.

Since both the public and private sectors can invest and save, the current account balance must be equal to the sum total of the financial balances (S – I) of the private and public sectors. The financial balance of the public sector is equal to the aggregate national budget balance.

**Despite twin deficits the current situation is not comparable with that in the 1980s**

As in the 1980s, the situation since the beginning of the 2000s is also characterised by twin budget and current account deficits. Nonetheless, the present situation is not comparable with that in the 1980s. Whereas at that time the financial balance of the private sector was in surplus (saving exceeded investment) and the US current account deficit was therefore attributable entirely to the public sector, this time both the private sector and the public sector are in deficit. Responsible for the negative balance in the private sector is the sharp decline in the savings-income ratio in the wake of the property boom. In 2006, it was even negative (over -1% of disposable incomes). So, to correct the current account, it is not just a question of consolidating public finances, which is already under way.

From the perspective of the USA, the present US current account deficit would therefore tend to support the trade perspective theory and thus be a sign of US economic weakness. The USA is living beyond its means – in 2006, it had consumed USD 811 bn more goods and services than it had produced.

But is the capital account theory then disproved? No, because set against the current account deficits in the USA there are surpluses in other countries. Their financial balances must be in surplus, which means that, in these countries, national saving exceeds investment. So there is an outflow of capital, which in turn supports the theory of the capital account as the driver of the US current account. From this perspective, it is rather the flood of savings from surplus countries which causes the US current account deficit.

**US current account deficit: The counterparts**

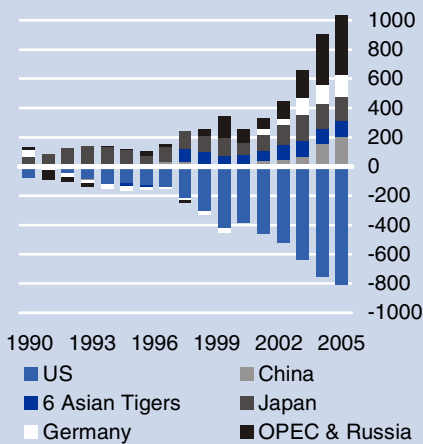
The surplus countries do not finance the US current account for altruistic reasons. They have economic motives.

- The low-growth, ageing economies of Japan and Germany generated current account surpluses of USD 171 bn and USD 146 bn in 2006. Combined, this was equivalent to 39% of the US current account deficit. As higher returns that can be achieved in the USA, it makes sense for these countries to invest capital there.
- In 2006, the oil-producing OPEC countries and Russia posted a current account surplus of over USD 410 bn, equivalent to nearly 50% of the US deficit. As investment opportunities are lacking at home, these countries had to invest capital abroad. This situation is changing, however, as we discuss in more detail in chapter 7.
- Since the Asian crisis in the late 1990s the Asian tigers have been seeking to underpin their currencies by building up their foreign exchange reserves. In 2006, they had an accumulated



**Global imbalances:  
US & counterparts**

Current account balances, USD bn



Sources: IMF, DB Research **31**

**US current account & counterparts in 2006**

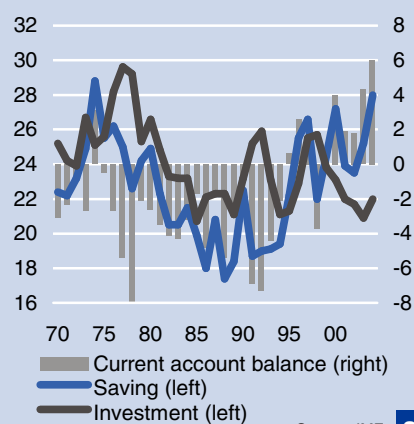
	USD bn	% of US deficit
US	-811	
Euro area	-23	-2.8
Germany	146	18.0
Asia	480	59.1
Japan	171	21.0
China	203	25.0
6 Asian Tigers*	106	13.1
OPEC+Russia	412	50.7

\* Hong Kong, Korea, Malaysia, Singapore, Taiwan and Thailand

Sources: IMF, DB Research **32**

**Oil-producing countries:  
Saving, investment & current account**

% of GDP



Source: IMF **33**

current account surplus of over USD 100 bn (over 12% of the US current account deficit). A main contributing factor here has been the sharp decline in investment as a percentage of GDP in the wake of the Asian crisis.

- Last year China posted a current account surplus of just over USD 200 bn, which was equivalent to 7.7% of China's GDP and almost one-fourth of the US current account deficit. Through market intervention (buying US dollars) China is seeking to prevent a strong appreciation of its currency so as to remain competitive, the intention being to sustain the pace of economic growth and thus push ahead with the country's development. As China's financial markets are still not all that developed as yet, it makes sense to channel savings to the USA.

In all these countries, national saving exceeds investment, and by a quite considerable margin in some cases. Consequently, these countries have a strong propensity to invest capital in the USA, thus financing the US current account deficit. So we believe that the US deficit is less of a threat to the world economy than is widely assumed even though this propensity to invest in the USA will probably diminish in scale, as we discuss in chapter 7. A correction of the US current account deficit does not therefore necessarily need to go hand in hand with a sharp slide in the value of the US dollar.

## 6. A model of the US current account

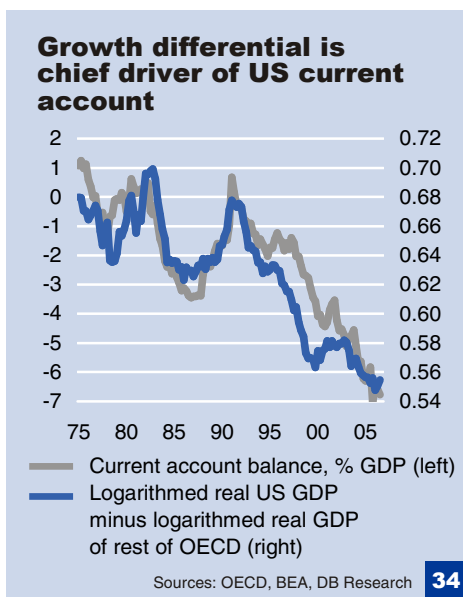
### Growth differential, exchange rate and oil price

What needs to happen to bring down the US current account deficit? To answer this question we have projected a model to shed light on the US current account. We take the following variables:

- (1) the growth differential (and thus an explanation from the trade theory perspective),
- (2) the USD exchange rate (representing an explanatory approach from the capital flows perspective), and
- (3) the oil price which, owing to the low price elasticity of demand, has a strong short to mid-term impact on the current account.

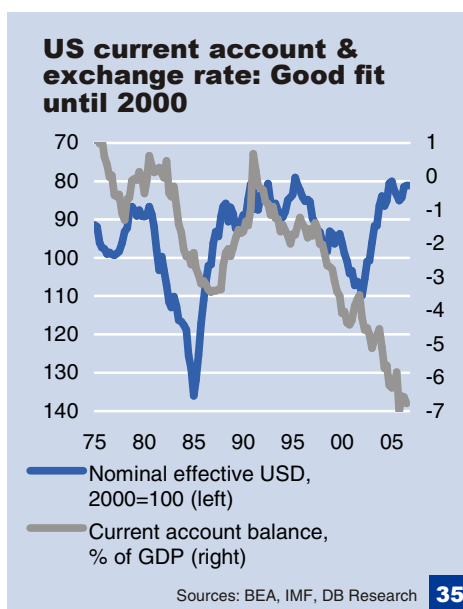
#### Variable I: Growth differential

If an economy's growth exceeds that of its main trading partners, the import pull exceeds exports, resulting in a current account deficit. In the USA's case this is accentuated by the Houthakker-Magee asymmetry. Although the emerging economies are becoming increasingly important, to simplify matters – and to enable estimates to be made on a quarterly basis – we have based our study on the growth differential between the USA and the other OECD countries. For our purposes, the growth differential is the difference between the logarithmed real gross domestic products. Other OECD countries account for nearly 60% of US imports and 70% of US exports. The chart on the left clearly shows the close correlation between the USA's growth differential versus the other OECD countries and the US current account balance.

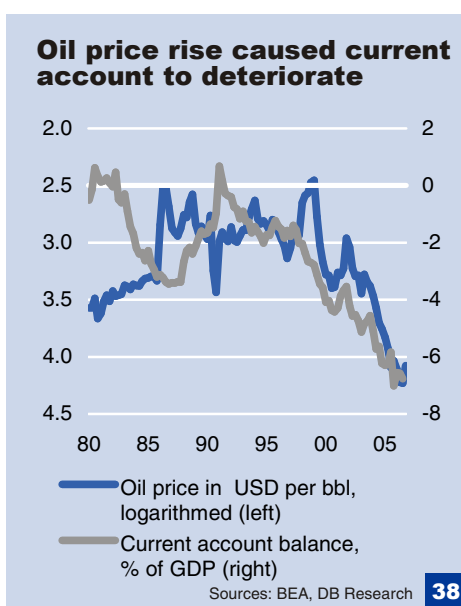
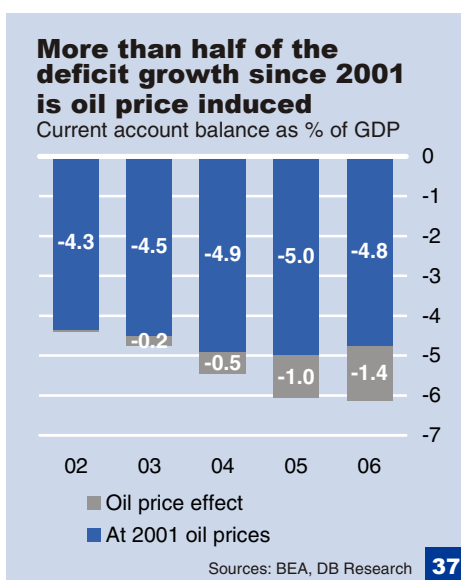
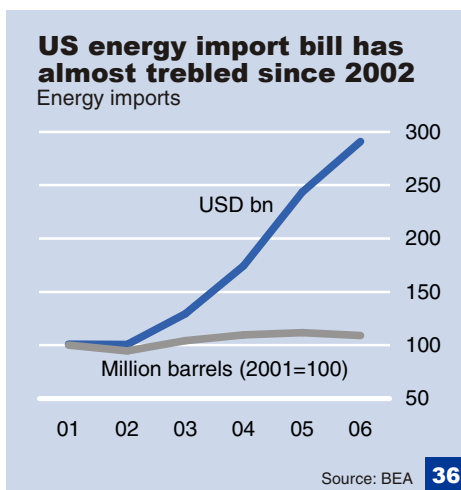


#### Variable II: USD exchange rate

While the development of the US current account balance tracked the US dollar with a time lag of about two years in the 20 years from 1975 to 1995, this correlation appears less pronounced from around the mid-1990s and not longer seems to apply since the beginning of the 2000s<sup>11</sup>. Other things being equal, currency depreciation makes a country's imports more expensive and exports cheaper – improving the country's current account balance once J-curve effects fall away, and vice versa. From its last high in early 2002 the US dollar fell by over 12% on a trade-weighted basis in each of the following two years, depreciating overall by 26% to date. Common rules of thumb for the US current account's reaction to exchange rate changes assume an improvement of roughly USD 50 bn in the US current account for each 10% by which the US dollar depreciates. On this assumption, the US current account ought to have improved by well over USD 100 bn. However, the opposite happened: the US current account deficit rose by USD 65 bn in 2003 and by roughly USD 120 bn in each of the years 2004 and 2005. If the correlation between current account and US dollar did apply since the beginning of the 2000s, there must have been other



<sup>11</sup> To show the parallel development of the two curves more clearly, the left-hand scale in the chart "US Current Account & Exchange Rate" has been inverted. USD appreciation, which tends to cause a deterioration of the current account, is therefore shown as a downward movement in the curve. Accordingly, the low point on the curve represents the USD's peak in autumn 1985 when the G5 signed the Plaza Agreement. A devaluation of the US dollar was to be achieved through controlled influence on the international foreign exchange markets, which succeeded.



factors burdening the current account which more than neutralised the improvement triggered by the change in exchange rate.

#### Variable III: Oil price

One explanation for the, of late, diametrically opposed development of the US dollar and the current account deficit is the drastic rise in oil prices in recent years. Between 2002 and 2006 the average US import price for oil and energy has climbed from USD 23.7 to nearly USD 60 per barrel. While the volume of imports has increased only modestly, the USA's bill for imported energy has tripled since 2002 to almost USD 300 bn.

If oil prices had stayed at their 2002 level (USD 22 ½ per barrel), the USA's bill for energy imports would have come to only just over USD 110 bn in 2006 and would have been over USD 180 bn, or 1.4% of GDP, lower. Other things being equal, the US current account would then have posted a deficit of only USD 630 bn, or 4.8% of GDP, last year. Consequently, since 2002 over half of the growth in the US current account deficit has been oil price induced.

This is why we have decided to include the oil price in our estimation of the US current account alongside the conventional variables of economic growth and the US dollar<sup>12</sup>.

#### The model: Two-step error correction model

Our estimation is based on a relatively straightforward, two-step error correction model. To begin with, we estimated the equation for the long-term correlation between the US current account balance as a % of GDP and the three explaining variables of growth differential, US dollar and oil price as absolute, logarithmed metrics.

#### The long-term equation

The estimation is based on quarterly data from Q1 1980 to Q3 2006. The equation is:

$$\begin{aligned}
 CAB\% = & -39.20 * [\ln(USGDP) - \ln(OECDrGDP)].1 \\
 & -4.24 * NEUSD.8 \\
 & -0.97 * \ln(OIL).3 \\
 & -4.53
 \end{aligned}$$

where

<i>CAB%</i>	<i>US current account balance as % of GDP</i>
<i>USGDP</i>	<i>Real US GDP in chained 2000 USD</i>
<i>OECDrGDP</i>	<i>Real GDP of the other OECD countries in chained 2000 USD</i>
<i>NEUSD</i>	<i>Nominal effective USD exchange rate</i>
<i>OIL</i>	<i>Price of Brent Blend oil in USD per barrel</i>
<i>ln</i>	<i>Logarithm</i>

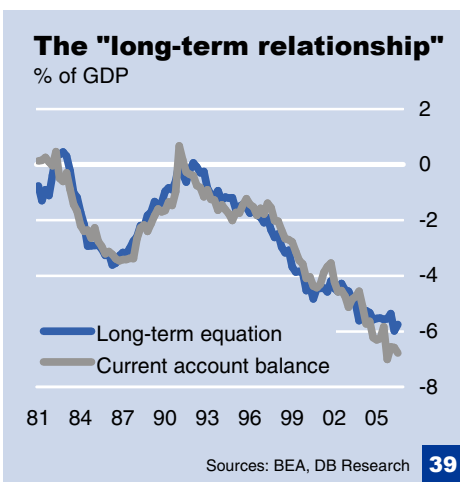
The figures after the variables refer to the lag in quarters.

All the variables are integrated from degree 1, and are thus not stationary, and are co-integrated. The coefficient of determination ( $R^2$ ) of 0.90 is therefore not surprising.

The residual variables<sup>13</sup> arising from this estimation, shown in the equation as *ERROR*, were then used to estimate the short-term dynamic which was done in first differences and additionally

<sup>12</sup> The left-hand scale is also inverted in the chart "Oil Price Rise Caused Current Account to Deteriorate".

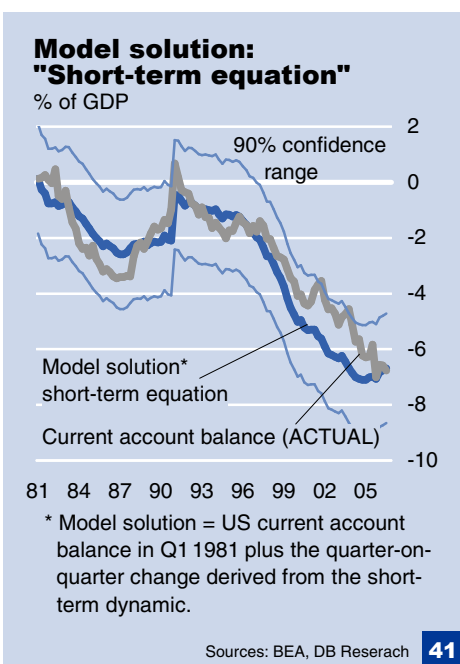
<sup>13</sup> Residual variables = difference between the current account balance derived from the estimation and the actual current account balance.



### Statistical values of the short-term equation

R <sup>2</sup>	0.37		
Adj. R <sup>2</sup>	0.34		
D.W.	2.13		
Variable	Coefficient	T-value	P-value
GDP	-13.60	2.81	0.006
NEUSD	-1.28	1.42	0.154
OIL	-0.46	1.98	0.047
DUMMY	1.26	3.86	0.000
ERROR	-0.18	3.37	0.001
Constant	-0.07	2.19	0.029

Source: DB Research **40**



contains a dummy variable for Q1 1991. The transfers of around USD 40 bn from the Iraq war allies were posted at that time, which resulted in a surplus on the US current account and cannot be explained by the three variables used in our model.

#### The short-term dynamic

In the second step of the error correction model, the model was then estimated in the form of the first differences:

$$\Delta LB\% = -13.60 * \Delta [\ln(USBIP) - \ln(OECDrBIP)].1$$

$$-1.28 * \Delta (NEUSD).6$$

$$-0.46 * \Delta [\ln(OIL)]$$

$$+1.26 * DUMMY$$

$$-0.18 * ERROR.1$$

$$-0.07$$

where

*DUMMY* Dummy variable for Iraq war transfers in Q1 1991

*ERROR* Error correction term = residual variables from the long-term equation

$\Delta$  First differences (difference vs. previous quarter)

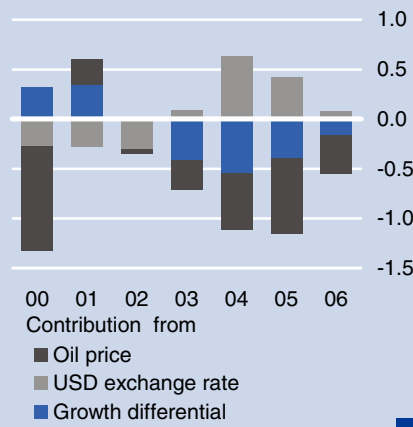
The first differences for the variables used are all stationary. In addition, all the variables have the expected prefix signs: stronger growth in the USA than in the other OECD countries leads to a deterioration in the US current account, an appreciation of the US dollar on a trade-weighted basis also leads to a higher US deficit, as does a rise in the oil price. The error correction term also has the required negative prefix sign. All variables except the exchange rate are significant at the 5% level.

#### Houthakker-Magee asymmetry fulfilled

The absolute term in our short-term equation has a negative prefix sign. Our estimate therefore confirms the Houthakker-Magee asymmetry, i.e. US import elasticity is higher than that of its main trading partners. As a result, the US current account deteriorates even if growth in the USA is the same as in the other OECD countries and if exchange rates and oil prices are constant. As mentioned earlier, this would offset the relief from a one-time USD devaluation if the USA and its main trading partners are growing at the same pace. Consequently, if a one-time USD devaluation is to help improve the US current account on a sustainable basis, US growth needs to be lower than that of the other OECD countries.

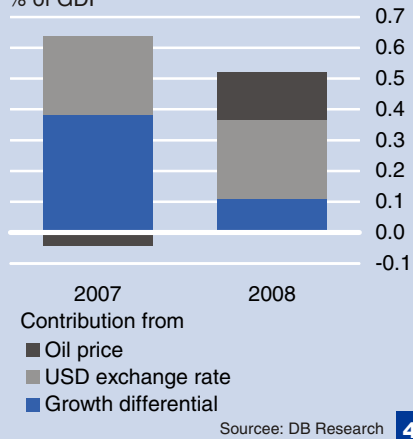
### Growth differential, oil price pushed, exchange rate dampened since 2003

Change in US current account balance  
% of GDP



### Improvement in the US current account likely in 2007 and 2008

Change in US current account balance  
% of GDP



### Model shows good fit with reality

Chart 41 on the left shows that our model produces a relatively good fit with reality. The estimates for the quarter-on-quarter change in the US current account (as % of GDP) derived from the short-term dynamic were added to the figure for the US current account balance in Q1 1981. Only in the last years does the model solution deviate somewhat more strongly from the actual development. However, it still lies within the 90% confidence range and at the end of the period more or less matches the actual value.

### What has an impact and how much?

From the annualised coefficients of the short-term dynamic we derive the following adjustment effects:

- (1) If economic growth in the USA is one percentage point higher than that of the other OECD countries, the US current account deteriorates by about ½% of GDP per annum. In absolute figures this is about USD 65 bn.
- (2) A depreciation of the US dollar by 10% on a trade-weighted basis improves the US current account likewise by about ½% of GDP.
- (3) If the oil price rises by 10%, the US current account deteriorates by almost 0.2% of GDP<sup>14</sup>.
- (4) If all variables remain constant, the US current account deteriorates by about 0.2% of GDP per annum (Houthakker-Magee asymmetry).

### Contributions to the change in the US current account

With our US current account model we can also ascertain the contributions which the individual variables make to the change in the US current account deficit. The results show that the expansion of the deficit since 2003 is attributable to the growth differential and the rise in oil prices. These two factors therefore more than neutralise the dampening effects which the US dollar's depreciation has on the current account. Consequently, the US dollar's depreciation was not without effect. Without it, the US current account deficit would have grown about 1.2% of GDP faster and would have stood at almost 7 ¼% of GDP in 2006.

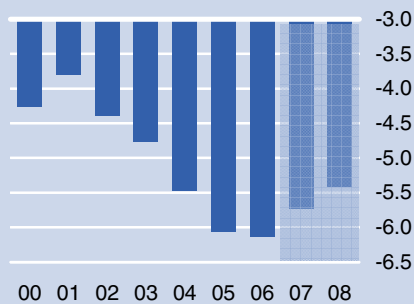
### Short-term outlook: US current account to improve in 2007 and 2008

After economic growth in the USA was still a good ¼ percentage point higher than in the other OECD countries last year, we expect the growth differential to reverse this year. We forecast economic growth of just over 2% for the USA in 2007 while the other OECD countries should see growth in the region of 2 ¾%. The difference is therefore -¾ percentage point which, on the basis of our model, would improve the US current account by 0.4% of GDP. The growth differential will probably narrow in 2008 but should still be just under

<sup>14</sup> The exact figure is 0.18, which would cause the US current account to deteriorate by 3 percentage points of GDP on the basis of the over 160% rise in the oil price since 2001. At first glance our model appears to considerably overstate the oil price's influence since the deterioration on the basis of the actual development of the trade balance was only 1 ½ percentage points (see page 19). However, the deterioration by 3 percentage points only occurs if the oil price rises by 160% in one year. As the oil price has risen relatively evenly in the past years, the deterioration of the current account was spread over several years. Additionally, nominal GDP also rose appreciably over that period so the coefficient we obtained for the oil price is compatible with reality.

**US current account deficit improves by almost 1% of GDP by 2008**

US current account balance, % of GDP



Source: DB Research **44**

¼ percentage point in the other OECD countries' favour. This would mean a further 0.1% of GDP improvement in the US current account in 2008.

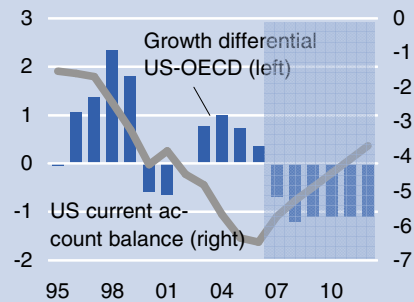
As to the outlook for the US dollar we calculate with a further depreciation by 5% on a trade-weighted basis in each of the years 2007 and 2008. We thereby assume that the USD/EUR rate stays put at around 1.35 and that the USD weakens against the yen to a JPY/USD rate of 110 in 2008. China's currency should remain on its slightly upward trend this year and next year (-4 to -4 ½%, respectively). The US dollar depreciates by between 5% and 6% against the other Asian currencies but stays more or less unchanged versus the currencies of the oil-producing countries in the Near and Middle East. We expect the US dollar to fall by about 4% against NAFTA member Mexico in each of the two years. The US dollar's depreciation by 5% on a trade-weighted basis in 2007 and again in 2008 improves the US current account by a good ¼% of GDP in each year.

In our estimation, the oil price should remain at an average level of USD 65 per barrel in 2007 and sink to USD 60 per barrel next year (-8.3%), which would relieve the US current account by 0.2% of GDP.

Allowing for the negative absolute term in our short-term equation, the US current account deficit would narrow to around 5 ½% of GDP this year and come down further towards 5 ¼% of GDP next year. This would be a tangible improvement of almost 1% of GDP versus the present level and might be a first step on a long-term path of correction.

**Scenario I: Growth differential and US current account**

%-points (left), % of GDP (right)



Source: DB Research **45**

**7. Longer-term adjustment scenarios**

**Return to an ordered world**

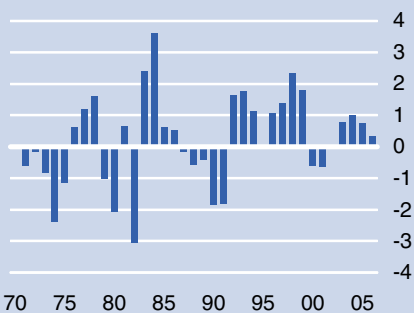
Our current account model also enables longer-term adjustments to be projected. To begin with, we examine how the growth differential or US dollar exchange rate would need to change to reduce the US current account deficit to a level that would be sustainable long term (scenarios I and II). Since – as discussed earlier – there is no generally valid criterion for this, we have assumed it to be about 4% of GDP and have taken the next five years as the transition period. Since it is unlikely that either of the two alternatives can lead to a smooth reduction of the US current account deficit, a relatively trouble-free adjustment scenario is then described (scenario III).

**Scenario I: Reduction via growth differential**

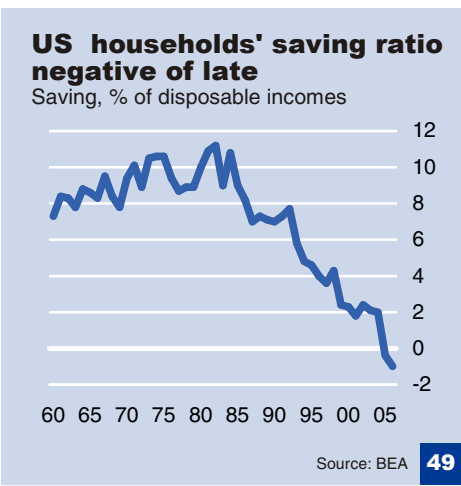
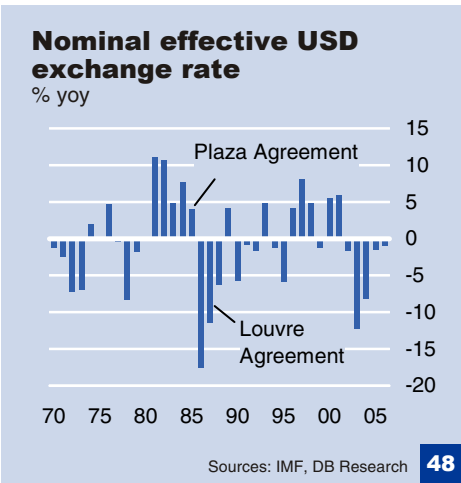
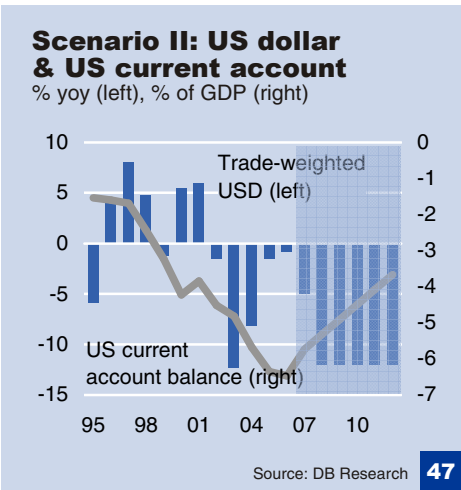
To narrow the US current account deficit to 4% of GDP by 2012 via the growth differential alone, it would be necessary for economic growth in the other OECD countries to exceed that of the US economy by almost 1 ¼ percentage points per annum over the next five years. Such a development does not appear all that realistic, however. During the past 35 years growth in the USA has only been lower than in the other OECD countries for short periods. However, when this has happened, the differential was more pronounced than we have assumed in our scenario. For instance, in the mid-1970s and in the early 1980s, in reaction to the first and second oil price shocks, economic growth in the USA was 2.4 and 3.1 percentage points, respectively, weaker than in the other OECD countries; likewise in the early 1990s when the growth gap was just under two

**Growth differential**

Growth US minus growth rest of OECD, %-points



Source: OECD **46**



percentage points. Such situations were invariably associated with a recession in the USA. A slump in the US economy on that scale for five years would no doubt have major implications for the rest of the world.

**Scenario II: Reduction via the US-dollar**

The potential to reduce the US current account deficit to 4% of GDP by 2012 via the exchange rate alone appears limited, too. According to our model, the US dollar would have to depreciate by 12% p.a. on a trade-weighted basis over the next five years. This would be equivalent to an overall decline of 47% in the value of the US dollar by the year 2012. This might appear rather high but our model solution is in line with mainstream estimates<sup>15</sup>.

Assuming that the US dollar depreciates evenly across all currencies, the USD/EUR rate would be over 2.38 and the JPY/USD rate 64 in 2012. Such rates can hardly be regarded as long-term equilibrium parities. Still, the US dollar has seen similarly dynamic devaluations in the past. After the Plaza Agreement in autumn 1985, for instance, it fell by about 30% overall on a trade-weighted basis within three years.

If the global imbalances are reduced solely via the exchange rate, the effects of the Houthakker-Magee asymmetry need to be taken into account as well. If the USA grows at the same pace as the other OECD countries, the US dollar would have to depreciate perpetually by about 5% p.a. to neutralise these effects.

At first sight such a trend would not appear to make economic sense considering the long-term equilibrium rate, for instance on the basis of purchasing power parities. The present USD/EUR rate is probably already appreciably above the purchasing power parity equilibrium rate, which model calculations by Deutsche Bank Research currently put at a USD/EUR rate of 1.20 and JPY/USD rate of 95. However, the external sector of the US economy is hardly in equilibrium, so, to restore it (and thus reduce the US current account deficit), the exchange can, and needs to, diverge considerably from its purchasing power parity rate even for some time.

**Scenario III: An ordered world**

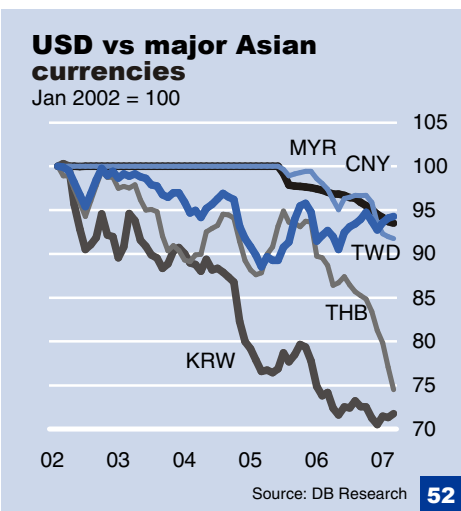
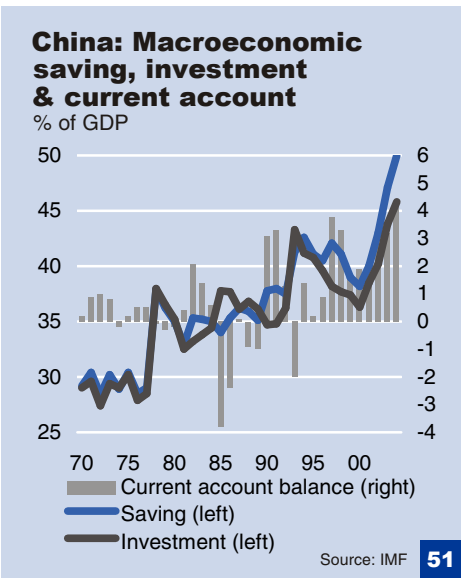
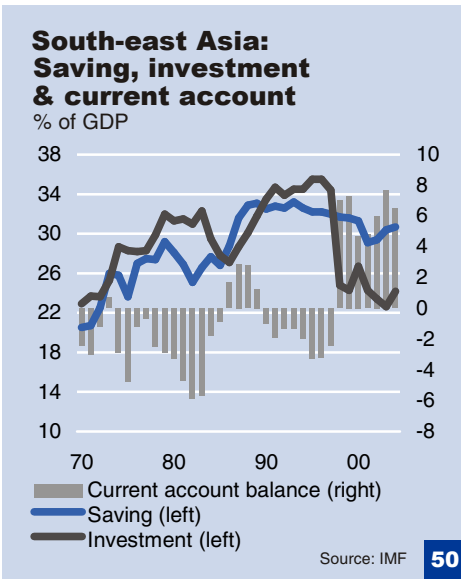
Then what form can an orderly reduction of the US current account deficit without major disruptions to the global economy take?

Firstly, we have set, fairly mechanistically, a growth differential which we consider to be economically justified. On this basis, economic growth in the USA is about ¼ percentage point p.a. weaker than in the rest of the OECD area.

**S – I for the second time: In the USA...**

Weaker US economic growth can be triggered by shifts in the saving-investment ratio. For instance, the growth of the US economy can be damped by a higher household saving-income ratio. Higher private saving improves the financial balance of the private sector (saving minus investment) and hence improves the US current account. We expect to see this process already in the current year. The private saving ratio, which fell sharply in the wake of the US

<sup>15</sup> See Jarrett, P. (2005). Coping with the Inevitable Adjustment in the US Current Account. OECD Economics Department Working Paper No. 467. William Cline even called for a new Plaza Agreement. See Cline, W. (2005). The Case for a New Plaza Agreement. Institute for International Economics. Policy Briefs in International Economics, No. PB05-4.



property boom (and was even negative in 2006 at -1% of disposable incomes), should pick up again this year and be back in positive territory at the latest in 2008. This is indicated by the recession in the housing sector and falling house prices, which is causing consumption financing via so-called mortgage cash-outs to dry up. The upshot is weaker growth in private consumption and thus in the economy as a whole. The adjustment process outlined could also be supported by fiscal consolidation, which improves the financial balance of the public sector and thus the current account.

**... and elsewhere**

If the US current account deficit is indeed due only to some extent (and possibly only to a small extent) to developments within the USA itself and is more the result of investment decisions by international investors, as the explanatory theory based on capital flows suggests, an important key to solving the US current account problem would lie outside the USA<sup>16</sup>.

The savings glut in the surplus countries would need to decline. Less capital would then flow abroad (to the USA) and the US current account would improve accordingly. There are signs today that the high savings in some countries with current account surpluses are already on the decline. And the process should accelerate in the coming years.

**Oil-producing countries: Focusing more on diversifying their economies**

The oil-producing countries, for instance, are no longer investing their revenues only in the US capital market but are using some of it to diversify their economies and thus reduce their dependence on oil revenues. Given that oil reserves are on the wane, this process is likely to gather momentum and domestic investment in this area should rise. Together with stronger growth in consumption spending, this leads to lower savings and thus less capital invested in the USA and, on the other hand, to stronger economic growth and higher imports (from the USA).

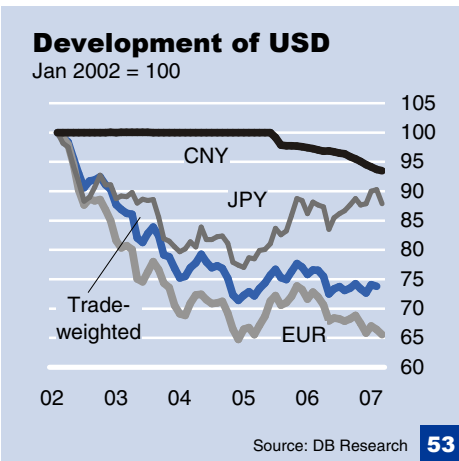
**Asia: Strengthening of the domestic markets**

The savings glut is also likely to diminish in the coming years in the Asian countries with current account surpluses. Investment activity there lost appreciable dynamic in the wake of the Asian crisis. Investment as a % of GDP is down by over 10 percentage points from its previous peak. This process should gradually reverse again. It is also likely that households there will adjust their spending to rising incomes and therefore cut back on their high savings. This is likely to happen – though in weaker form – in China, too, where private-sector savings are equivalent to about half of GDP.

A small growth advantage for the USA's main trading partners appears plausible in the coming years. Such a development would present no problems for the world economy since this would take the form of more moderate growth in the USA (without recession) and stronger growth in the other countries.

<sup>16</sup> See Dovern, J., C.P. Meier and J. Scheide (2006). Das hohe Leistungsbilanzdefizit der Vereinigten Staaten: Ein Risiko für die Weltwirtschaft und für die wirtschaftliche Entwicklung in Deutschland? Kieler Diskussionsbeiträge No. 432/433.

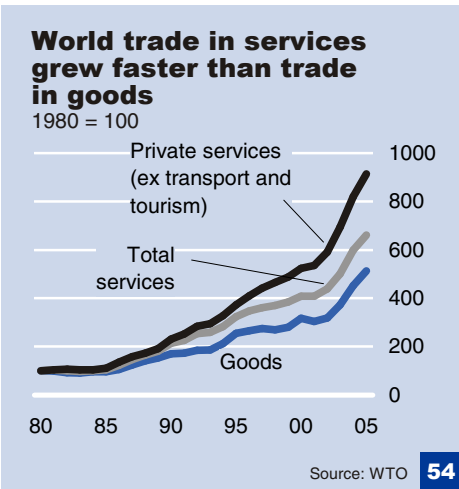




### 30% USD depreciation needed as well

Assuming a negative growth differential of ¼ percentage point p.a., the US dollar would need to depreciate, too, by around 30% overall, or just over 5% p.a., on a trade-weighted basis over the next 5 years to bring down the US current account deficit below 4% of GDP. This seems a quite realistic possibility considering the development from 2002 to 2004 when the US dollar fell in value by about 25% on a trade-weighted basis.

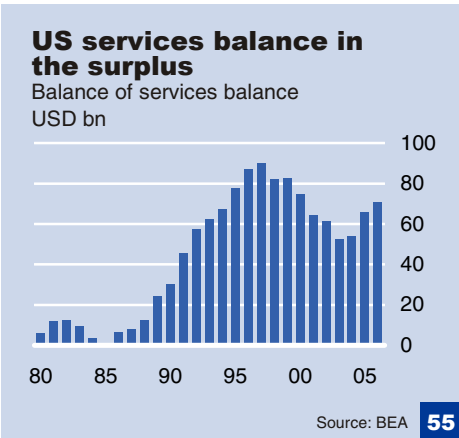
However, the US dollar would have to depreciate primarily against the currencies of those countries which have correspondingly high surpluses in bilateral trade with the USA. If the devaluation were to be concentrated on the USD/EUR rate, the global imbalances would merely shift from the USA to Euroland, which would not make economic sense.



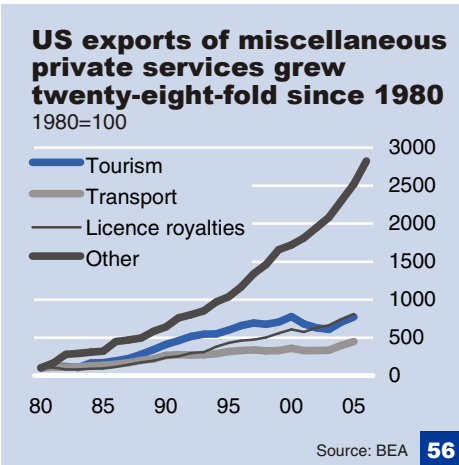
Consequently, it is above all the Asian currencies which need to be the focus of the necessary exchange rate adjustments. At the top of the list there are China, which has by far the biggest surplus with the USA (2006: approx. USD 250 bn) and whose currency has appreciated by only 6 ½% against the US dollar since 2005, and Japan. The yen has even depreciated by about 10% against the US dollar since 2005 despite Japan's trade surplus – over USD 90 bn at the last count – with the USA. A 30% depreciation of the US dollar on a trade-weighted basis would imply the following changes in relation to the key currencies for US current account purposes: Chinese Renminbi -40%, Japanese Yen -35%, Euro -5%, Saudi Rial -45%, Mexican Peso -20%<sup>17</sup>.

### A further ray of hope: Trade in services

However, aside from possible growth and exchange rate shifts there is another ray of hope that might facilitate a reduction of the US current account deficit, namely the trade in services. And in two ways:



Firstly, a further intensification of the global trade in services could provide tangible support in narrowing the US current account deficit. The USA has been able to profit in special measure from the fast-expanding international trade in services in the past years. Since 1980 global trade in services has grown a good deal faster than trade in merchandise. This is true especially of corporate services, referred to in the literature as “new economy services”, for instance in the areas of IT, finance and insurance, patents, licenses, engineering documentation and the like and other corporate services.

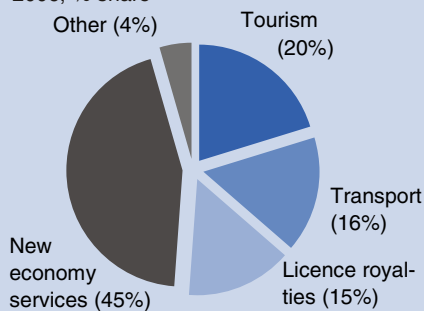


The USA is particularly strong internationally in this field. While the USA's total exports of services (2006: roughly 30% of total exports of goods and services) have grown eight-and-a-half-fold since 1980, leading to a surplus on the services account of USD 80 bn at the last count, exports of miscellaneous corporate services (2006: a good 12% of exports of goods and services) have risen twenty-eight-fold over the same period, trebling their share of total exports of services to 43% and boosting the surplus in this sub-segment from USD 3 ½ bn to around USD 71 bn over the past 26 years. Although the importance of the services account for the current

<sup>17</sup> See Cline, R.W. (2005). US fiscal adjustment and further Dollar decline required to curb rising US external debt. News September 19, 2005. Institute for International Economics.

**New economy services predominate**

Structure of US exports of services  
2006, % share



Source: BEA **57**

**Estimates of US import and export elasticity**

	Exports		Imports	
	G*	S**	G*	S**
Pain, van Welsum		1.7		1.5
Mann		2.1		1.5
Wren-Lewis, Driver	1.2	2.0	2.4	1.7
Houthakker, Magee	1.0		1.5	

	Exports		Imports	
	G+S		G+S	
Mann	1.4		2.2	
Hooper, Johnson, Marquez	0.8		1.8	
Cline	1.7		2.4	

Used in the OECD  
Interlink Model

\* G = goods  
\*\*S = services

Source: Brook, Sedillot, Ollivaud (2004) **58**

account has tended to wane in the past years, the fact that the surplus has been on the rise again for three years now could mark a turnaround here.

**Houthakker-Magee asymmetry: many causes**

Secondly, the Houthakker-Magee asymmetry discussed earlier applies only to goods. The USA's higher import elasticity in the case of goods can be attributed to demographic factors, the age structure and the proportion of immigrants, among other things<sup>18</sup>. In their consumption patterns younger societies incline towards a higher proportion of imported goods than older societies, while national services, such as healthcare spending, tend to play a less-than-proportional role. Additionally, immigrants usually prefer goods from their home countries. Another explanation is the dynamic growth of the USA's most important trading partners. It has been demonstrated for instance that countries with strong economic growth boast a broader range of export products and their exports are of higher quality, which boosts demand for them abroad. According to studies, this effect is the chief factor behind the Houthakker-Magee asymmetry. The transfer of production abroad and the vertical integration of US companies as well as the structure of the USA's external trade have probably been contributing factors, too. A reduction of the USA's import elasticity, and thus a contribution towards narrowing the US current account deficit from this side, is hardly likely.

**Houthakker-Magee asymmetry: Not in the case of services**

On the other hand, no evidence of a Houthakker-Magee asymmetry has been found in the case of US imports of services.<sup>19</sup> While studies reveal that in the case of goods the USA's import elasticity exceeds export elasticity by ½ to one percentage point, in the case of services it is ¼ to ½ percentage point lower. The reason for this probably lies in the "new economy services", where the USA plays a leadership and first mover role and which therefore were, and are, in strong demand abroad<sup>20</sup>.

The USA could well profit more than proportionally, as it did in the 1990s, from the continued fast-growing international trade in services. The so-called "new economy services" could therefore help to reduce the US current account deficit in the coming years.

<sup>18</sup> See Brook, A.M. F. Sedillot and P. Ollivaud (2004). Channels for Narrowing the US Current Account Deficit and Implications for Other Economies. OECD Economics Department Working Paper No. 390.

<sup>19</sup> See Hooper, P., K. Johnson and J. Marquez (1998). Trade Elasticities for G-7 Countries. Board of Governors of the Federal Reserve System. International Finance Discussion Papers 609.

<sup>20</sup> See Mann, C.L. (2003). The US Current Account. New Economy Services, and Implications for Sustainability.

## 8. Still questions about the US current account?

The US current account has swelled to USD 811 bn, or 6.1% of GDP, at the last count. We do not believe that a deficit of this magnitude is sustainable long term, although there is no objective criterion to gauge this. The deficit should sink in absolute terms and relative to GDP this year and next year. This is suggested by the slowing US economy, the depreciation of the US dollar to date and the fact that the oil price is not still rising.

In our view, a dismantling of the international trade imbalances is possible over the longer term without a rapid and sharp slide in the value of the US currency.

Firstly, the relationship between saving and investment in the USA will shift towards saving, a process which, in view of the recession in the housing sector, should already start in 2007 and which, above all, is of a cyclical nature. An upturn in US households' savings-income ratio also appears probable longer term. Secondly, adjustments in the surplus countries, especially in the oil-producing countries and the Asian economies, should set a countervailing development in motion there. Together, the two developments will bring down the US current account deficit. Additionally, the USA is profiting in special measure from the fast-expanding international trade in services, which should continue and likewise help reduce the US current account deficit. The USA is the frontrunner especially in the so-called "new economy services", which are the real drivers behind the growth in services.

Consequently, there is much to suggest that the necessary adjustments to bring down the US current account deficit will not happen abruptly but gradually. So, there's no reason to panic!

Bernhard Gräf (+49 69 910-31738, [bernhard.graef@db.com](mailto:bernhard.graef@db.com))

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