How Long the Strong Dollar?

CATHERINE L. MANN

When the dollar started to depreciate at the beginning of 2002, many pundits nodded: This was expected. After all, the US current account deficit in 2000 and 2001 hovered around 4 percent of GDP, and, based on second-quarter data, the figure for 2002 was headed for around 5 percent. For industrialized countries the rule of thumb is that a current account deficit of 4 to 4.5 percent of GDP is a “danger point” for the home currency. On this basis, my 1999 book Is the US Trade Deficit Sustainable? suggested that the current account deficit could widen for another two to three years. So, the dollar was depreciating right on schedule! But was I right in my prediction for the right reasons? Is sustainability analysis based on the current account deficit the best framework for explaining the depreciation of the dollar so far this year? Or is there another perspective on the current account deficit that has more salience in explaining the dollar’s behavior in 2002 and for considering its likely direction for 2003?

In this essay I outline two views of external sustainability and the dollar and conclude that the current account deficit-to-GDP analysis, although valuable for tying down long-term trends for a currency, is not the more important framework for understanding the behavior of the dollar in 2002 or 2003. Rather, an analysis framed around the global investor—rather

Catherine L. Mann, senior fellow at the Institute for International Economics since 1997, previously served in policymaking institutions in Washington, including the Federal Reserve Board of Governors, President’s Council of Economic Advisers at the White House, and the World Bank. Outstanding assistance from Jacob Funk Kirkegaard is thankfully acknowledged. This paper draws on some of the author’s previous work (Mann 1999, 2002).

Copyright 2003 Institute for International Economics | http://www.iie.com
than focused on the US economy—yields insights that better aid our understanding of the recent and near-term behavior of the dollar. This alternative perspective on sustainability is based on portfolio allocation theory and takes into account the size of net foreign purchases of US assets, the increase in global financial wealth, and investors’ portfolio preferences for risk, return, and diversification.

Considered in this light, depreciation pressures are created by the high share of US assets in the portfolio of the global investor (the consequence of decades of large US external deficits). Particularly in early 2002, the significant flow of US assets into the global marketplace at a time when global financial wealth had not been expanding very much and when the relative returns to US assets seemed to have narrowed put depreciation pressure on the dollar. But possibilities for additional appreciation, particularly in 2003, derive from the likely return to relatively more attractive (or less unattractive) investment possibilities within the United States. The global investor, and therefore the dollar, is caught between a desire for diversification and an appetite for return.

Dollar Depreciation in 2002: Much Ado About Nothing?

Many analysts discussing dollar depreciation in 2002 focus on the euro and the yen and start the clock at the beginning of the year (figure 3.1, top graph). Indeed, from February to mid-July the dollar depreciated some 12 percent against the euro and the yen—a rapid enough change to worry German exporters and precipitate Japanese intervention. But that’s not the only way to look at the dollar. Considering a longer perspective, say, from 1995, and looking at the dollar in real terms and against a broad currency basket, there is not much action to report—only about 5 percent depreciation (figure 3.1, bottom graph)—about half of which reversed since mid-July. Are the different time periods and measures of the dollar relevant for perspectives on sustainability of the current account deficit?

The exchange value of the dollar can be viewed as a summary statistic incorporating numerous forces and factors: monetary policy stance, domestic savings relative to investment, long-term potential GDP growth, relative productivity of the United States vis-à-vis other major countries, depth of financial markets, and sentiment barometer. That is why it is so difficult to forecast exchange rates.

In this paper I present two views of what drives the dollar, each a collage of the factors listed above. View 1 is the traditional “current account view” on sustainability. In this view, the focus is on the US real economy. Are the current account deficit and negative net international investment position “large” with respect to the US economy? This view focuses on
Figure 3.1 Views on dollar depreciation

**US dollar exchange rate index, January 2 - December 1 2002**

Source: Pacific Exchange Rate Service.

**FRB monthly broad dollar indices, January 1995 - November 2002**

Source: Federal Reserve Board.
US economic conditions and on what the magnitude of the stock and flow of external obligations imply for US spending and economic growth.

View 2 is the “global wealth portfolio view” on sustainability. Are the flow of US financial assets into the global marketplace and the current stock of US assets in the global wealth portfolio “large” with respect to global investor wealth? This view focuses on conditions in both the United States and other global economies when considering what the stock and flow of US assets imply for allocation of global financial wealth.

**Concepts of Sustainability and Benchmarks**

Sustainability has two sides, which mirror these two views of what drives the dollar. From the standpoint of the US economy, sustainability has to do with how much the US economy can afford to borrow from the rest of the world by running a current account deficit and building up a negative net international investment position on which it must ultimately make good. Sustainability from the standpoint of the rest of the world has to do with the extent to which investors in other countries are willing to buy and hold US assets in their portfolios of wealth given other investment choices with other risk-return profiles as well as their diversification preferences for the allocation of exposures in their portfolio.

In either concept, a sustainable situation is one in which the stock or flow imbalance generates no economic force of its own to change the trajectory of the imbalance. For example, a sustainable current account trajectory is one where the feedback effects from the current account deficit or negative net international investment position through net investment service payments to consumption or business investment spending, are relatively weak in comparison to other macroeconomic forces that affect these spending categories. A sustainable net capital inflow is one where the feedback effect from global wealth allocation to the dollar is relatively weak in comparison to other macroeconomic forces that affect asset prices and portfolio choices. From an econometric standpoint, the question is whether or not the external imbalance would be a significant variable in a regression for US spending (in the US economy view) or foreign portfolio allocation (in the global portfolio view), and in either case, in a model of the exchange value of the dollar.

**Sustainability Benchmark for the Current Account Deficit**

A large and persistent current account deficit portends a negative net international investment position that grows ever larger. Eventually the financial payments (such as interest and dividends) arising from this negative net international investment position (NIIP) will become large.
enough to cut into current consumption and business investment. At that
time, the current account deficit itself (and its accumulation in the NIIP)
changes domestic absorption (the sum of consumption, investment, and
government spending), reducing import growth, and changing the trajec-
tory of the current account toward a sustainable path.¹

At some point, an economy running a current account deficit today
has to stem the widening of that deficit and the accumulating negative
NIIP so that they grow less rapidly than the capacity of the economy to
service the debt—that is, the NIIP-to-GDP ratio (and, by arithmetic, the
current account deficit-to-GDP ratio) need to stop becoming ever more
negative. The US current account deficit seems very big, but is it big
relative to the US economy in this “sustainability” sense?

In a world of certainty everyone can “do the math,” but only empirical
analysis can help determine a sustainability benchmark for the real world.
For industrialized countries, a current account deficit-to-GDP ratio of some-
where between 4 and 5 percent appears to be associated with the onset
of economic forces (including a monetary policy response, a reduction
in income, and, in some cases, a real depreciation of the currency) that
reduce consumption and (particularly) business investment, thus chang-
ing the trajectory of the current account and returning it to sustainable
territory (Chinn and Prasad 2000, Freund 2000, Mann 1999). Similarly,
econometric analysis finds, for a group of industrialized countries, that
a large negative net international investment position is associated with
a depreciation of the relevant exchange rate, although the magnitude of
net international investment that is associated with the exchange rate
change is less clear (Gagnon 1996). The US current account deficit-to-GDP
ratio was in the “danger zone” for two years before the dollar started
depreciating in early 2002. Is the average experience of industrialized
countries less pertinent to the sustainability of the US current account
deficit? If so, why might this be?

Sustainability Benchmark for the Global Wealth Portfolio

If significant net capital inflows are to be sustained, global investors must
be willing to purchase US assets at current prices and prospects, including
the going rate of return and exchange rate. If the global demand for US
assets at current prices is lower than what the US economy is offering
in the global marketplace by running a current account deficit, then
foreign investors may demand a higher return, or they may sell (or not
purchase) US investments, putting depreciation pressure on the dollar.

¹. The literature on balance of payments crises has a somewhat different trigger. There,
foreign currency interest service exceeds the level of foreign exchange reserves, precipitating
the change in imports, current account trajectory, and exchange rate.

Copyright 2003 Institute for International Economics | http://www.iie.com
At that point, the “needed” net capital inflow into the United States is unsustainable.

How much the global investor is willing to invest in the US economy is a function of several factors, including the risk-return profile of US assets relative to financial assets of other countries, the growth of the investor’s portfolio of wealth, transaction costs, information asymmetries, and regulation (Branson and Henderson 1985, Frenkel and Mussa 1985, Levich 1998). The US offering of financial assets in the international marketplace is very big, but is it big relative to global wealth in this “sustainability” sense?

Estimating a sustainability benchmark based on the global investor’s portfolio is difficult because the empirical record is thin and international financial markets are quite innovative, tending to quickly make a benchmark obsolete (Isard and Steckler 1985, Meade and Thomas 1993, Ventura 2001). One approach is to consider US net capital inflows relative to global savings. By this measure, the US current account deficit absorbs about 6 percent of world savings (Cooper 2001). But even if home bias is gradually attenuating with financial innovation and deregulation, clearly not all of global savings is available to be invested in international, much less US, assets (Lewis 1999). Suppose a global investor allocated his or her portfolio on the basis of relative real GDP shares; about 30 percent of the portfolio would be US assets. But portfolio weights based on GDP do not reflect the importance of return differentials for investment decisions, nor regulatory constraints on where investors can put their wealth. A third possible benchmark comes from relative stock market capitalization, which embodies both longer-term wealth creation and shorter-term valuation effects. If the global investor chose a portfolio to mirror the relative size of equity markets around the world, the share of US assets would be about 55 percent (based on Morgan Stanley Capital International [MSCI] data).

What evidence can we bring to bear on the sustainability question from the point of view of the global investor that will help us explain the behavior of the dollar in early 2002 and help inform us about the future direction of the dollar?

The US Current Account Deficit, Foreign Purchases of US Assets, and the Dollar

Considering 2002 and looking forward into 2003, which concept of sustainability matters more for the behavior of the dollar? Has and will the dollar react to the current account deficit-to-GDP ratio (or its close cousin the

---

2. Home bias is the term used to acknowledge that investors tend to hold a higher share of domestic assets in their portfolio of wealth than is to be expected based on risk, return, and diversification preferences alone.

62 DOLLAR OVERVALUATION AND THE WORLD ECONOMY

Copyright 2003 Institute for International Economics | [http://www.iie.com](http://www.iie.com)
Table 3.1 Assumptions for scenarios for current account balance and global financial wealth

<table>
<thead>
<tr>
<th></th>
<th>2002</th>
<th>2003</th>
<th>2004, 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>US real GDP1,2 (percent)</td>
<td>2.3</td>
<td>2.5</td>
<td>3.7, 3.5</td>
</tr>
<tr>
<td>World real GDP3 (percent)</td>
<td>2.0</td>
<td>3.0</td>
<td>3.5</td>
</tr>
</tbody>
</table>


NIIP-to-GDP ratio), which measures the domestic economy’s exposure to the external imbalances? Or has/will the global investor’s wealth exposure to US assets been/be the relatively more important factor affecting the dollar?

Simple scenarios for the current account and global financial wealth are based on public forecasts for US and global growth (table 3.1). As detailed below, these scenarios suggest that the concept of sustainability based on the current account deficit-to-GDP ratio is not the key concept for explaining the dollar’s behavior in 2002 nor for considering sustainability in 2003. Rather, the concept based on global portfolio allocation suggests that the supply of US assets offered to the global marketplace has been large compared to the increase in global wealth. This relatively heavy demand that the global investor buy US assets, at a time when US relative returns appear less generous than in the late 1990s and when the global portfolio is flush with US assets, is the key reason for the dollar depreciation of the first half of 2002, and will be an important consideration in 2003.

The Dollar and the Current Account Deficit

Consider first the concept of sustainability based on the current account deficit. Reasonable assumptions for US and global growth in 2002, 2003, and through the medium term yield a current account deficit-to-GDP ratio of 4.5 percent in 2002, rising to 4.9 percent in 2003, and to 6.1 percent in 2005 (figure 3.2, top graph). In 2002 and 2003, as well as for the past two years, the ratios exceed the benchmark value determined from the current account experience of other industrialized countries.

For the United States, however, the external imbalances have not yet translated into large financial costs. Although the net international investment position turned from positive to increasingly negative in the 1990s, the United States still enjoyed net service receipts of $15 billion (0.15 percent of GDP) in 2001 (figure 3.2, bottom graph). By way of comparison, inventory changes of $30 billion or more (seasonally adjusted annual rates) frequently occur from quarter to quarter in the US economy, and

Copyright 2003 Institute for International Economics | [http://www.iie.com](http://www.iie.com)
Figure 3.2  Current account and sustainability: Base case, no dollar change

US current account as a share of GDP

Source: Department of Commerce, and author's calculations.

Net investment income and NIIP as share of GDP

Source: Department of Commerce, and author's calculations.

Note: Bars represent net investment income.

64  DOLLAR OVERVALUATION AND THE WORLD ECONOMY
consumption alone is more than $7 trillion. Therefore, as large as these current account deficits appear to be in 2002 and even 2003, they are not yet large enough to engender financial costs that force an adjustment in domestic spending. Moreover, even as the negative NIIP increases to 24 and 29 percent in 2002 and 2003, respectively, what little empirical evidence there is for industrialized countries relating the NIIP-to-GDP ratio to the exchange rate suggests that the “trigger” benchmark is much larger. For many member countries of the Organization of Economic Cooperation and Development the NIIP-to-GDP ratio is stable at 40 to 50 percent.

According to the theory that underpins the current account view of sustainability, a high-productivity country that issues assets mostly in its own currency at a low interest rate (such as US government obligations) and with a high share of marketable assets (such as equity and corporate bonds) can continue along a trajectory of increasing the current account deficit for a longer period than can a country that borrows in currencies other than its own, at high interest rates, and using fixed-maturity, fixed-payment bank debt. This constellation of domestic real economy and external financing closely matches the characteristics of the US economy and net financing (figure 3.3). This mix of financing is part of the reason for the surprisingly positive net service obligations noted above. Finally, figure 3.3 also shows that net foreign purchases of US assets have exceeded $400 billion every year since 1995, topping $1 trillion in 2000. The United States attracts far more capital inflow than needed to finance the current account deficit.

Even considering arguments of forward-looking expectations, all told, the current account view on sustainability is not a plausible story for why the exchange value of the dollar started to depreciate at the start of 2002.

The Dollar and the Global Portfolio

Consider now the concept of sustainability based on global financial markets. The data for the first quarter of 2002 (annualized rate) (figure 3.3) show a dramatic slowing of net foreign purchases of US assets, which is consistent with the depreciation of the dollar in the first half of 2002. The second-quarter rebound in net financing to annualized rates similar to the “dot-com years” and the stabilizing of the dollar in mid-2002 are also notable. Is there evidence from the standpoint of the global investor’s portfolio that would help explain what we observe in terms of net financial flows? We need to consider both the marginal investment choice, since

3. Recent empirical work (Tille, Stoffels, and Gorbachev 2001; Alquist and Chinn 2002; and Brooks, Edison, Kumar, and Slok 2001) finds statistically significant relationships between the dollar/euro exchange rate and transatlantic capital flows.
Figure 3.3  Net foreign purchases of US assets by asset type

Source: Department of Commerce, table 1 US International Transactions.
this determines whether net capital inflows into the United States will be sustained at the going exchange rate, but also the average exposure of the global investor’s portfolio of wealth to US assets—that is, portfolio diversification—since diversification affects allocation.

Our knowledge of the portfolio of the global investor is limited. The Economist surveys a set of global portfolio managers quarterly about their portfolios (figure 3.4, top graph). Based on these surveys, the share of US equity assets in the equity portion of the overall portfolio stood at around 30 percent in 1993 to 1995, rose dramatically between 1995 and 1997 to about 50 percent, stabilized again through 2000, and then rose a bit more to about 55 percent through the third quarter of 2002.4

Increased average holdings of US assets comes from a higher marginal investment in US assets as the global portfolio grows. Although we cannot observe this directly with available data, the bottom graph of figure 3.4 shows a calculation of this marginal investment allocation. In simple terms, this calculation is the ratio of the net flow of US assets into the global financial markets (this flow is proxied by the current account) to the increase in non-US global net financial wealth (calculated from a base of non-US G-7 net financial wealth). (See the appendix for more details.) Based on these calculations the modest marginal allocation of US assets in the global portfolio of the early 1990s doubled in the mid-1990s and became dramatically large from 1998 to 2001. The pattern of marginal allocations is consistent with the changes in average holdings from the Economist survey, is consistent with the relative performance of the US economy in the later 1990s and early 2000s, and matches the dramatic net foreign purchases of US assets (figure 3.3), particularly during the bubble period in the US stock market.

How can these measures of the average and marginal investment allocations help us understand the behavior of the dollar in 2002? By the end of 2001, the global investor’s portfolio had become less diversified.5 At the same time, the calculations suggest that the net offering of US assets in the global financial marketplace in 2002 has been large, even in historical experience, in comparison with the projected increase in global financial wealth. This is partly because of continued large US current account deficits (the numerator) but, more importantly, because of slug-

4. Also shown is the so-called MSCI-neutral portfolio, which is what portfolio allocation “should” be if the investor merely holds a portfolio to mirror global market capitalization. Clearly the Economist investors follow the MSCI but they do not hold a completely neutral portfolio. For more discussion see Mann and Meade (2002).
5. We do not have a complete picture of the geographic allocation strategy in the portfolio of the global investor, including in bonds, cash, and other assets. In the example that follows, the equity portion of the portfolio is taken as a proxy for the overall portfolio. Of course even if the equity component of the portfolio is becoming less diversified, the overall portfolio could still be sufficiently geographically diversified.
Figure 3.4  Global financial wealth and sustainability: Base case, no dollar change

US share of equity assets in the global portfolio

MSCI = Morgan Stanley Capital International index

Source: Data from *The Economist*, calculations by author.

US share of change in (non-US) global wealth
(70 percent home bias of global investor)

Note: Bars represent 50 percent G-7, 25 percent non-G-7 advanced economies, 25 percent developing Asian countries.

Source: Author's calculations.
glish global growth and thus smaller increases in global wealth (the denominator). Finally, at least in the early months of 2002, differentials between major stock market indices in Europe and the United States widened (figure 3.5) as the relative rate of return on US assets seemed to be less attractive, and revelations of mismanagement by Enron, Tyco, WorldCom, and other major companies increased the risk premium on US assets.

All told, lack of diversification, slow growth in global wealth, a too-generous offering of US assets in the marketplace, narrowed US relative returns, and a higher perceived accounting risk on US investments help to explain the dollar depreciation in the first half of 2002.

**Whither the Dollar in 2003?**

Given the assumptions for US and global growth (summarized earlier in table 3.1) that underpin both the current account view of sustainability and the global portfolio view of sustainability, what are prospects for the dollar in 2003? Several scenarios frame possible sources of pressure on the dollar that differ considering the two views of sustainability.

In the simplest scenario, suppose there is no change in the value of the dollar in 2003. How the current account deficit and global investor

**Figure 3.5 Stock market differential and the dollar/euro exchange rate** (Xetra Dax-S&P500 indices spread and dollar/euro exchange rate, October 1, 2001 [=100] to November 27, 2002)

Sources: Yahoo Finance; Federal Reserve.
allocation evolve relative to their respective sustainability benchmarks helps determine the plausibility of this scenario. Returning to figure 3.2 (the current account view of sustainability), for 2003 the current account deficit-to-GDP ratio is well into the danger zone based on the industrialized-country benchmark. But the NIIP-to-GDP ratio (and its medium-term trajectory) remain small compared to other OECD country experiences, and although the net service payments might rise to 0.3 percent of GDP, they remain small as well. Therefore, despite a large current account deficit per se, it leads to few forces that would herald a change in consumption habits, a change in the trajectory of the current account, and a depreciation of the dollar in 2003.

In the global portfolio view, on the other hand, this unchanged-dollar scenario implies that the global investor must allocate about 80 percent of the increase in wealth to US assets, much as they did in the 1998 to 2001 period (see figure 3.4 bottom graph). But this would happen at a time when the US share in the portfolio has risen sharply and seems historically high. Is this investor choice realistic? If it is, then there will be little pressure on the dollar in 2003 coming from either the current account view or the global investor view of sustainability. If not, the global portfolio view might portend another round of dollar depreciation from the period of pause in the second half of 2002.

What factors might affect the portfolio allocation decision and therefore affect prospects for the dollar? The global investor could simply continue to increase the share of US assets in his portfolio, moving further away from a diversified allocation, and the dollar would stay about stable. Regulatory and institutional changes in foreign markets, particularly the European financial markets (or China’s capital account liberalization), could make those markets relatively more attractive destinations for financial investment, causing the investor to move assets into those markets and allocate less to US investments so the dollar would depreciate. But these structural changes could also increase financial leverage and reduce “home bias,” both of which would grow the financial portfolio and increase the share of wealth that can be invested in international assets, including US assets. A “wealth stock” effect vs. “relative return” effect would determine whether more or less investment in US assets resulted and what direction the dollar might take. A full analysis of all these factors is beyond the scope of this paper.

Instead, consider much simpler dollar stories based on alternative scenarios for the allocation of global net financial wealth (figure 3.6 and table 3.2). In the first scenario (global GDP share), the marginal allocation of global financial wealth in US assets returns to the mid-1990s average of

---

6. Mann and Meade (2002) discuss the implications for portfolio allocations and the dollar/euro exchange rate of a change in the institutional structure of European financial markets.
Figure 3.6  Global financial wealth: US share of change in (non-US) global financial wealth

Table 3.2  US current account/GDP and dollar depreciation (percent) scenarios targeting US share of the global equity portfolio

<table>
<thead>
<tr>
<th>Scenario 1 target: Equity share drops to global GDP share (33 percent)</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>−4.5</td>
<td>−1.7</td>
<td>−2.1</td>
<td>−2.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scenario 2 target: Equity share stays at MSCI share in global financial wealth (55 percent)</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>−4.5</td>
<td>−3.3</td>
<td>−3.7</td>
<td>−3.6</td>
</tr>
</tbody>
</table>

MSCI = Morgan Stanley Capital International index

about 30 percent, which is also the US share in global GDP (one of the possible global portfolio benchmarks noted earlier). In order for this marginal allocation to be achieved in 2003, the dollar would have to depreciate by nearly 50 percent from current levels!7

The significant change in the value of the dollar under this first scenario has predictable effects on the path of the current account deficit, but also yields some financial results that are not realistic (table 3.2). In the current

7. As with any partial equilibrium scenario, the change in the dollar is taken to affect the current account deficit and the marginal allocation of global financial wealth, but not US GDP growth or the growth of global wealth.

HOW LONG THE STRONG DOLLAR?  71
account view, the dramatic crash of the dollar needed to bring the US portfolio share back to the US share in global GDP pushes the current account deficit-to-GDP ratio well into the territory of long-term sustainability, as judged by Williamson and others.\textsuperscript{8} (Although ultimately the dynamics of trade flows take over and the deficit widens again.) But, beyond what happens in the US marketplace, what might happen in other countries? The dollar crash implies a radical shift in the investment strategy of the global investor toward other financial markets amounting to about $350 billion in investor capital in 2003. Investors could buy domestic assets, but suppose this shift is into other international assets. Based on the MSCI neutral portfolio weights, the reallocated portfolio implies capital flows of about $220 billion into assets of Europe and the United Kingdom, about $81 billion into assets in Japan, and about $60 billion into assets in other regions. These are huge net capital flows that would be associated with very large movements in their current accounts, thus underlining the implausibility of the scenario.\textsuperscript{9}

In the second scenario (global market cap share), the marginal allocation of global financial wealth in US assets returns to the 2001-2002 average share of equities in the global portfolio of wealth (55 percent), which approximates the global weight based on stock-market capitalization. In order for this to be the marginal allocation throughout the projection, the dollar would have to depreciate about 20 percent from late November 2002 levels in 2003, and then depreciate a bit further in 2004 and 2005.\textsuperscript{10}

The results from this second scenario are more reasonable and rather intriguing. The immediate effect of the 24 percent depreciation narrows the current account deficit to 3.3 percent of GDP; the further small dollar depreciations (which keep the marginal allocation at 55 percent) stabilize the current account deficit at 3.7 percent of GDP, which is well within the industrialized-country benchmark. Thus, there is a symmetry between the benchmarks based on global market cap and industrialized-country current account. But, the global market cap benchmark may be a tighter

\textsuperscript{8} John Williamson and Molly Mahar (1998) judged that the long-term US current account deficit should be 2 percent of GDP (1 percent if measured properly).

\textsuperscript{9} It is interesting to note, however, that if, following the 48 percent depreciation (which is necessary to get to the long-term average portfolio allocation of 33 percent), the dollar then depreciates about 10 percent per year in 2004 and 2005, the marginal allocation of the global investor in US assets would be stabilized at 33 percent of global financial wealth and the current account deficit would be stabilized at 2.2 percent of GDP, just about the Williamson and Mahar target.

\textsuperscript{10} The dynamics of the trade deficit and the net service payment on the NIIP cause the current account gap to widen again immediately after any one-off dollar depreciation. So a continuous dollar depreciation is necessary to keep the current account deficit from widening. For more on how the dynamics of the US current account are driven by trade elasticities and debt service, see Mann (1999, chapter 8).
benchmark. Whereas the US current account deficit-to-GDP ratio has room to rise toward the industrialized-country benchmark of 4 to 4.5 percent, this would push the average share of US assets in the global portfolio beyond the 55 percent benchmark based on global market capitalization. While the global investor certainly has allocated a higher fraction of his or her increase in wealth to US assets, this occurred when the US economy clearly was out-performing the rest of the world (late 1990s).

All these scenarios taken together, including the unchanged dollar, suggest that the offering of US assets to the global investors is “large” with respect to the growth in global wealth but that the current account deficit is not large with respect to the US economy. The view of sustainability that matters most for the dollar in the near term is the one based on the global portfolio. Does this mean that the dollar is ripe for further depreciation?

The fundamental factor underpinning the scenarios is the share of US assets in the global portfolio, either the average share of wealth or the marginal share of the increase in global wealth. In either case, it’s about diversification and based on this motive alone, the dollar should experience further pressure for depreciation. However, risk and return motives are equally, if not more, important for the global investor’s marginal allocation decision. Into 2003, what can we say about prospects for risk and return on US and other international assets? The long-run growth estimates of 3-3.5 percent for the United States, 2-2.5 percent for Europe and 1 percent for Japan suggest continued superior performance by the US economy and therefore, on average, higher returns to holding US assets. A restored faith in the US economy, dashed hopes for a revival of growth in Japan, and insufficient structural reforms in Europe give appreciation momentum to the dollar for 2003, even as the share of US assets rises in the portfolio of the global investor. Will return trump diversification? Answering this question determines the direction for the dollar in 2003.

Appendix 3.1
Calculating Global Non-US Investable Net Financial Wealth

The starting point for constructing a measure of global non-US investable net financial wealth lies in the OECD Net Financial Wealth data for the G-7 nations from 1992-2000. These were used to generate current dollar-denominated non-US G-7 net financial wealth by dividing the OECD net financial wealth figures (which are presented as a percentage of nominal

personal disposable income, PDY) by the national PDY-to-GDP ratio.\textsuperscript{12} Local currency unit (LCU) wealth is then computed by multiplying the net financial wealth-to-GDP ratio by LCU GDP. Current dollar-denominated wealth is generated using annual dollar-exchange rate averages.\textsuperscript{13}

The national G-7 current dollar-denominated net financial wealth ($\alpha$) is computed as follows:

$$\alpha_i = \left( \frac{\beta_i}{\chi_i \gamma_i \lambda_i} \right)$$

where

- $\beta_i =$ national G-7 net financial wealth as a percentage of nominal PDY,
- $\chi_i =$ national G-7 PDY/nominal GDP ratio,
- $\gamma_i =$ national G-7 LCU nominal GDP, and
- $\lambda_i =$ national G-7 LCU/dollar annual average exchange rate.

The total non-US G-7 current dollar-denominated wealth ($\Sigma \alpha_i$) is then grossed up to non-US world levels by dividing by the non-US G-7 nominal GDP-to-non-US world nominal GDP ratio.\textsuperscript{14} World net financial wealth ($\mu$) is computed as follows:

$$\mu = \left( \frac{\theta}{\rho} \right)$$

where

- $\theta =$ non-US G-7 current dollar-denominated net financial wealth ($\Sigma \alpha_i$), and
- $\rho =$ non-US G-7 current dollar GDP/non-US world current dollar GDP ratio.

A home bias of 70 percent is assumed when determining how much of the world’s net financial wealth is available for purchases of US assets, that is, only 30 percent of the total world net financial wealth ($\mu$) is global non-US investable net financial wealth (Lewis 1999).

\textsuperscript{12} Personal disposable incomes are available at G-7 national statistical agencies: UK, www.statistics.gov.uk/; Canada, www.statcan.ca/start.html; Germany, www.bundesbank.de/; France, www.insee.fr/fr/home/home_page.asp; Japan, www.stat.go.jp/english/data/ nenukan/1431-04.htm. No numbers could be located for Italy, which was then assumed to be equal to the average of Germany and France. As no number for Japan for 2000 could be located, PDY/GDP fraction is assumed to grow from 1999 by the 1998-99 growth rate. Furthermore, few historical data for Canada were available, and hence the Canadian fraction was frozen at 0.65, halfway between the US 2001 figure and the Continental European average of France and Germany.

\textsuperscript{13} National LCU GDP figures and average exchange rates are from the IMF World Economic Outlook September 2002 database at www.imf.org/external/pubs/ft/weo/2002/02/data/index.htm.

\textsuperscript{14} World current dollar-denominated GDP data are from the World Bank, http://devdata.worldbank.org/dataonline/.

74 DOLLAR OVEREVALUATION AND THE WORLD ECONOMY

Copyright 2003 Institute for International Economics | http://www.iie.com
The above figures are data to the year 2000. For the period 2001-05, the 2000 non-US global net financial wealth figure is increased annually at the Macroeconomic Advisers’ November 11, 2002, real multilateral trade-weighted GDP year-over-year growth rate plus inflation. Inflation is a weighted average of the inflation rates for three groupings of the G-7 nations, the non-G-7 advanced economies, and “developing Asia,” with the weights at 50 percent, 25 percent, and 25 percent, respectively. All inflation rates are GDP weighted according to the 2001 current dollar-denominated GDP from the IMF World Economic Outlook September 2002 database. Inflation figures are annual for 2002 and 2003, with the 2003 rate assumed constant for the period 2004-05.

The calculations for 2001-05 assume the following:

- Stable consumption shares: PDY/GDP is held at the 2000 figure based on the OECD data. This is a reasonable assumption based on the examination of historical data.

- Stable financial leverage: Net financial wealth/GDP is held at the 2000 figure based on the OECD data. An examination of the historical pattern of this ratio shows that it moves around with changing economic conditions. However, there is no obvious empirical or theoretical rationale to make any specific assumption other than the one chosen.

- Stable home bias: It is assumed that home bias is unchanged at 70 percent. Home bias changes as a result of both cyclical and structural factors. However, there is no obvious empirical or theoretical rationale to make any specific assumption other than the one chosen.

References


15. Data for the non-G-7 advanced countries are from the World Economic Outlook September 2002 database. This grouping consists of the following countries: Australia, Austria, Belgium, Hong Kong, Cyprus, Denmark, Finland, Greece, Iceland, Ireland, Israel, Korea, Luxembourg, Netherlands, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, and Taiwan.

16. Developing Asia as taken from the World Economic Outlook September 2002 database consists of the following countries: Afghanistan, Bangladesh, Bhutan, Cambodia, China, Fiji, India, Indonesia, Kiribati, Laos, Malaysia, Maldives, Myanmar, Nepal, Pakistan, Papua New Guinea, the Philippines, Samoa, Solomon Islands, Sri Lanka, Thailand, Tonga, Vanuatu, and Vietnam.


