TD Bank Financial Group

TD Economics

Special Report

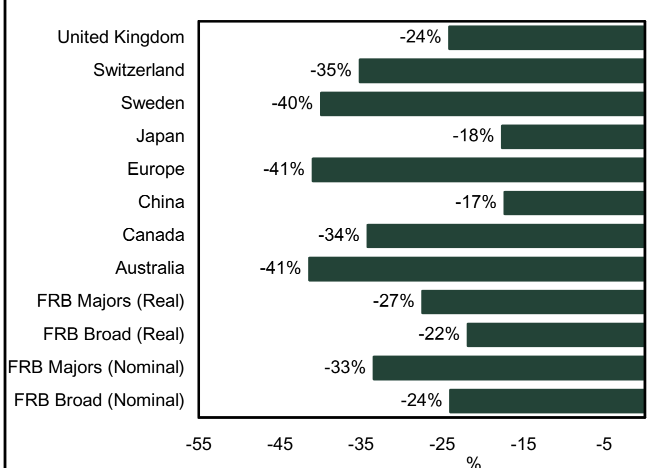
September 26, 2008

WILL THE U.S. DOLLAR GO THE WAY OF THE BRITISH POUND?

Since 2002, the value of the U.S. dollar has been on a downward trajectory – declining by over 27% in real (inflation adjusted) terms, and 33% in nominal terms against several major currencies on a trade-weighted basis. The depreciation has been fairly broadly-based, with sizeable nominal declines being posted in the value of the greenback against all seven major currencies; including the Australian dollar (41%), the British pound (24%), the Canadian dollar (34%), the European euro (41%), the Japanese yen (18%), the Swedish krona (40%) and the Swiss franc (35%). On a more broadly-based measure, the FRB Broad Index (which captures the value of the dollar against 26 world currencies) has fallen by 24% in nominal terms and by 22% in real terms.

The list of factors exerting the downward pressure on the greenback is long, and growing. Not least among them are the huge (and growing) public sector debt and the worsening national indebtedness position. In addition to

Rate of Depreciation of the USD Since 2002



Source: Haver Analytics, TD Securities

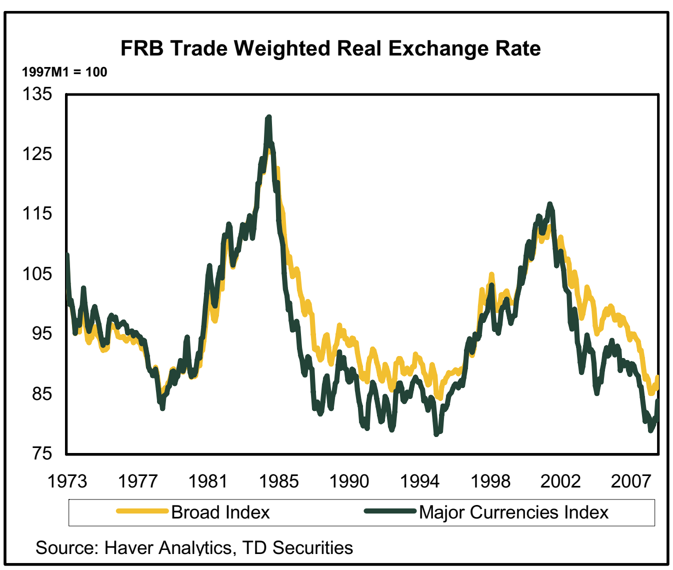
HIGHLIGHTS

- **Over the past six years, the U.S. dollar has come under intensifying downward pressure, resulting in the massive depreciation in its value against all major currencies, and almost all other global currencies.**
- **However, despite the dramatic erosion in its value over the years, there is little evidence to suggest that the dollar has gone much beyond the level deemedto be supported by economic fundamentals.**
- **In fact, from the econometric analysis conducted, we present evidence to show that the decline in the value of the dollar has been part of a long-term structural realignment in its value, and as such there is little misalignment in the current market value of the dollar relative to its equilibrium fair value.**
- **However, all else being equal, the recent decision by the U.S. government to bail out the financial sector in a bid to clear up bank balance sheets and restore confidence in the financial system will likely add significant downward pressure on the USD (we estimate a potential 10% or so drop in the value of the dollar in real, broad terms) in the near to medium term.**
- **Notwithstanding this, we believe that the dollar's long-term prospect as the global currency of choice remains relatively safe, though this will hinge crucially on the evolution of the current global savings/investment imbalances, and the success of other currencies in providing viable alternatives (or complements) to it.**

these, there are the strains coming from the ongoing financial sector disruptions, and the impact of the accompanying monetary policy accommodation that the Fed has undertaken since the summer of 2007 – which has resulted in unfavourable interest rate spreads against its major trading partners, particularly Europe. These factors have been compounded by the relentless surge in the price of crude oil and other commodities over the past few years – though these pressures have begun to ease in the past few months.

This cocktail mix of factors has magnified the strains on the greenback, and has reignited fears about its future prospects. With this in mind, it becomes important to determine whether or not the greenback is due for a further major decline, on account of the gathering storm clouds overshadowing it, and if this "correction" could conceivably lead to the dollar losing its prominent position as the global currency of choice. In essence, the questions that now need to be answered are: (1) what is the equilibrium (or fair) value of the U.S. dollar? (2) Has the down-drift in the value of the dollar been based on economic fundamentals or is it a temporary phenomenon? And finally, (3) will the U.S. dollar maintain its coveted position as the global currency of choice?

In this piece we attempt to provide answers to these questions. We conclude that the decline in the US dollar in the past few years appears to be part of a sustained structural shift in the value of the currency, and believe that further downside risks remain, given the recent decision by the U.S. government to rescue the ailing financial sector. We also note, however, that the dollar's ability to remain as the global currency of choice will be dictated in large part by the perception of global investors towards the currency (in a self-fulfilling manner). This will be demonstrated by investors' willingness to continue accepting (and holding) dollar-denominated debts, and the desire of central banks around the world to continue pegging their currencies to the U.S. dollar, and accumulating the requisite dollar-denominated reserves necessary to defend the established value.



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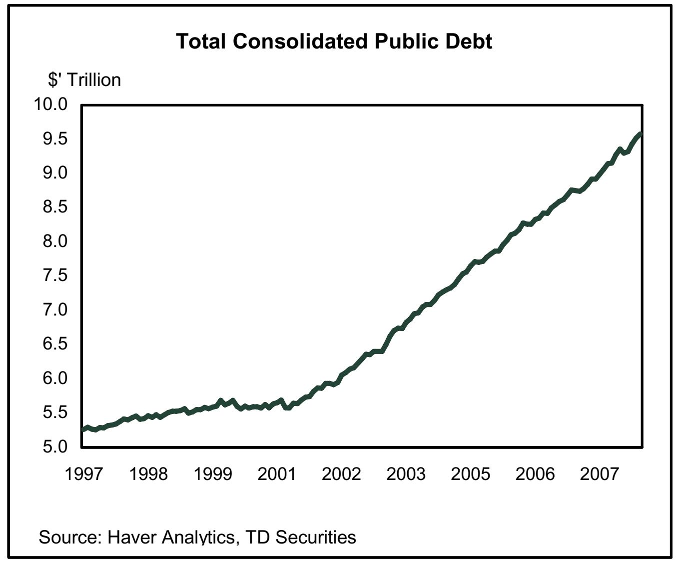

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The downturn in the dollar is fundamentals based

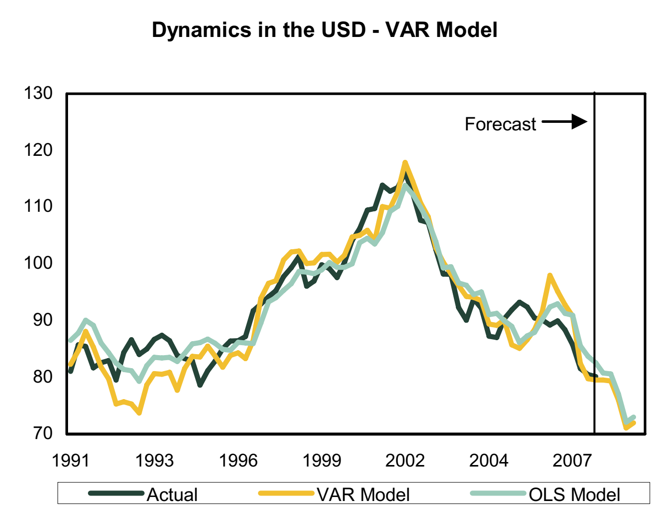
To assess the fundamental value for the U.S. dollar, and consequently to determine the extent of any over/under valuation of the trade-weighted dollar relative to this equilibrium value, we follow Clarke and MacDonald (2000) in applying the Johansen cointegration vector auto-regression (VAR) methodology using quarterly data. The four variables considered in the assessment are the real interest rate spreads (r - r^*)[1] between the U.S. and the trade-weighted average for the seven trading partners, the log of the U.S. commodity terms of trade (*tot*), the log of the ratio of total public sector debt to GDP (*debt*), and the relative price of traded to non-traded goods (*tnt*)[2]. Here the real exchange rate (*REER*) considered is the log of the real trade-weighted major currencies index (1997=100).

For this approach, we first established that a statistically significant stable long-run relationship exists between the variables of interest. Having ascertained the existence of this relationship, we then use the roots of the first cointegration vector (normalized on the trade-weighted exchange rate) to estimate the relationship. As such, the estimated equilibrium equation is of the following form:

$$REER = f(r - r^{*}, tot, tnt, debt)$$

The econometric analysis conducted concluded that there exists one long-run co-integrating relationship between the variables of interest. For example, the estimated long-run equation implies that a 1% increase in the U.S. terms of trade will result in an appreciation in the trade-weighted real exchange rate by 0.58%, while an equivalent increase in the ratio of public sector debt to GDP will lower the value of the trade-weighted dollar by approximately 0.56%. Similarly, a 1% improvement in the relative price of non-traded goods will result in the trade-weighted real exchange rate for the U.S. dollar appreciating by 1.75%. In terms of interest rate spread, a 100 bps increase in the relative real interest rate spread will result in a 4.58% appreciation in the trade weighted index for the dollar.

From the analysis, the model suggests that at its 2008Q2 level, the U.S. dollar was marginally over-valued (at 0.6% above the equilibrium value) against the basket of major currencies in real terms, following a period of being under-valued by the markets between September 2006 and the middle of last year. More importantly, with the movements in the estimated fundamental value closely aligned to that of the actual market-based value, it implies that the movements in the value of the trade-weighted dollar have been mostly based on movements in economic fundamentals. This observation is particularly important since it suggests that the decline in the dollar is indeed a structural down-turn in the value of the dollar, despite some modest mis-alignment in the value of the dollar in the past year.



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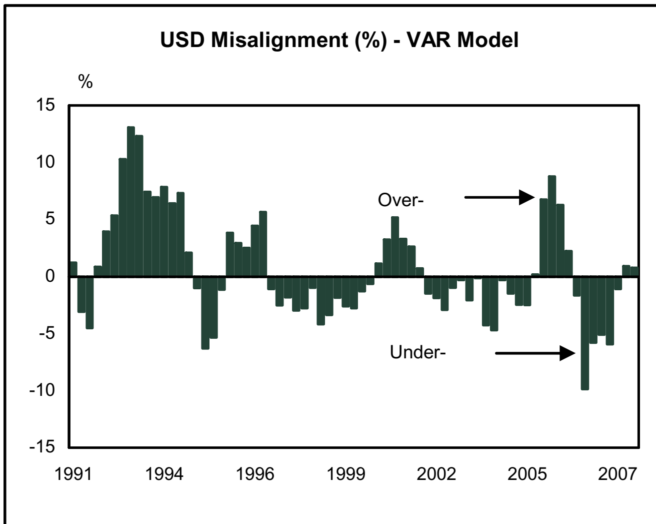

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Further confirmation of this conclusion was drawn from the estimation of the ordinary least squares (OLS) model, which also shows a secular decline in the value of the trade-weighted dollar, with this model suggesting a modest 3.09% undervaluation of the currency.

Indeed, it may be reasonable to argue that fundamental to the weakness in the value of the dollar is the perception that the U.S. current account deficit and the national debt positions of the U.S. may be heading into unsustainable territory, and as such the adjustments in the valuation of the currency can reasonably be seen as the natural market-based response to this – or more succinctly, the invisible hand working its magic. As we shall note shortly, some of this decline can be attributed to cyclical and temporary factors (such as interest rate and economic growth differentials between the U.S. and the rest of the world), though we believe that the main catalyst is the response of currency markets to the economic imbalances identified earlier.

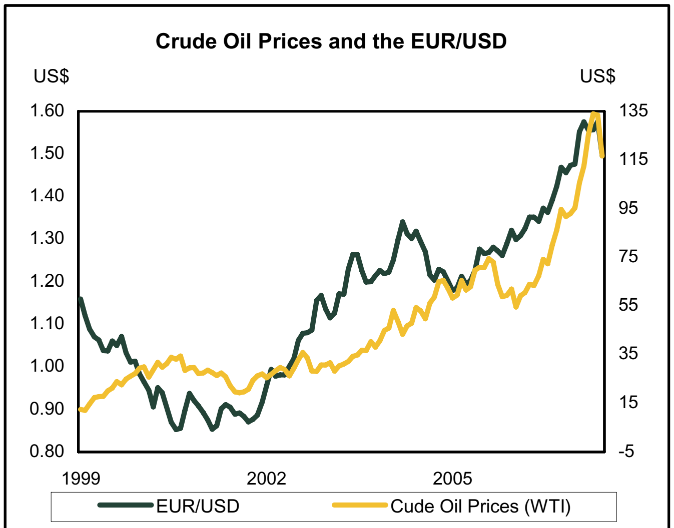
The short-run factors driving the dollar

The extended fall in the U.S. dollar against its major currency peers has started to concern some policy makers in the U.S. (notably the Fed) and alarmed others in Europe (notably in the French government). While decline has extended further than many market observers might have thought likely a few years back, the duration of the dollar's fall largely reflects the long term trends in USD movement that we have seen since the 1970s.

As noted above, the current dollar cycle has clearly been underway for some time – the dollar has, in fact, been weakening against the euro (EUR), when the euro was at its record low (of USD0.8225). At the time, European officials were concerned about the extended fall in the single currency since its 1999 introduction and sought the aid of the G7 to send a strong message to the financial markets that further declines in the EUR were not warranted. Central bank intervention (in late 2000) helped stabilize the EUR but the real turn around actually came some time after the central banks acted (EUR/USD did not make a new high until mid 2002) and was perhaps more of a reflection of a strengthening in net portfolio and direct investment inflows into the euro zone as global investors became more comfortable with the newly minted single currency.

An "over-valued" dollar coincided with the "dot com" bust and the aggressive Federal Reserve response to what was perceived to be a deflationary threat in the early part of this decade saw short term U.S. interest rates slashed and held at low real and absolute levels for an unprecedented period of time (the Fed funds target rate was left at 1% for almost a year between 2003 and 2004). At the same time, rising savings in Asia in particular saw increasing demand for U.S. Treasury debt product from currency reserve managers in this region, which had the effect of helping depress long-term U.S. yields. Global equity markets have struggled in the interim period as well and US equity market returns have not provided compelling returns relative to the rest of the world. In short, the U.S. dollar has not been a compelling investment proposition.

As a corollary to some of these issues, cheap domestic credit saw US consumers embark on a huge spending binge which sucked in cheap imports from Asia and inflated house prices. A combination of easy credit and robust housing facilitated a consumer boom that saw the U.S. current account deficit rise from a manageable 4% at the beginning of 2000 to a peak of 6.56% six years later. Many market observers and institutions (such as the IMF) concluded that the greenback had to weaken to try and help restore balance. As rapidly industrializing Asian and Latin American economies increased their foreign exchange reserve positions, asset diversification added to the pressure on the dollar; reserve managers and sovereign wealth funds have slowly spread their currency risk to other currencies to increase diversification and yield.



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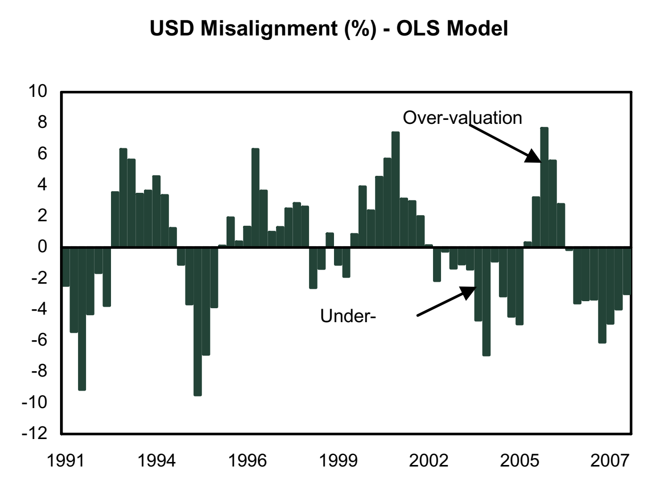
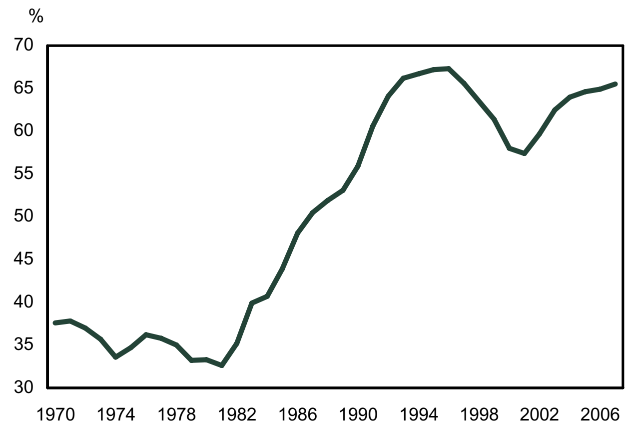


Source: Haver Analytics, TD Securities

The change in U.S. administration in 2001 brought with it an attempt to break with the "strong dollar" mantra devised by President Clinton's Treasury Secretary, Robert Rubin. President Bush's Treasury Secretary Paul O'Neill tried to move away from a bland reiteration of the "strong dollar" policy (something he later referred to as a "vacuous notion") but only managed to persuade the markets that the dollar's value was not a priority for the government – a view that has generally persisted under subsequent changes in leadership at the Treasury. As US growth has faltered again, officials have stuck with the "strong dollar" message (even if it has lost most meaning for market participants) while emphasizing the growth benefits (via exports) of a weak currency.

Recently, some of these short term drivers of U.S. currency weakness have started to moderate; the US balance of payments position is stabilizing and there are tentative signs of shared concern between the U.S. and Europe (if for entirely different reasons) about the prolonged slide in the dollar. Short term interest rate differentials continue to widen against the greenback – especially relative to the euro – but there are signs that the euro zone itself is slowing and that the recent housing/credit market implosion in the US is accentuating trends in some of the more highly leveraged economies in the region that may well exacerbate concerns about the ECB's "one size fits all" monetary policy. Indeed, recent balance of balance of payments data suggest that the high euro may be forcing out portfolio investment as well as direct investment flows (the reverse of the 2000/2001 situation) which may temper euro gains.

Gross Consolidated Federal Debt to GDP



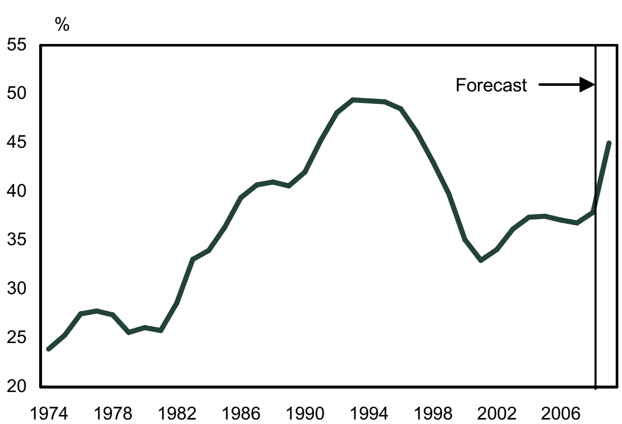
Source: Haver Analytics, TD Securities

Bail out packages present downside risks

At writing, the US Treasury and the Federal Reserve are attempting to extricate the US banking sector from a severe credit crunch. While the financial sector has been under some evident strain since the sub-prime crisis began to unfold in the middle of 2007, recent developments – bank failures, the collapse of Fannie Mae and Freddie Mac, speculative runs on the stocks of investment banks and insurer AIG, the collapse of Lehman Bros., Merrill Lynch's merger with Bank of America and the complete demise of the Wall Street independent "broker-dealer" – have reached cataclysmic proportions. In response, the U.S. administration is proposing a massive bail out of the financial sector in a bid to clear up bank balance sheets and restore confidence in the financial system; but at a massive cost.

Details remain sketchy but the bottom line is likely to be a massive increase in the fiscal debt burden on the U.S. economy (with the publicly-held debt to GDP ratio rising from a relative comfortable 36% to a somewhat disconcerting 45%) over the next two years at least – with the impact liable to ease only slightly in the years beyond that. All else being equal, this will add a significant downward pressure on the USD (we estimate a potential 10% or so drop in the value of the dollar in real, broad terms). Higher real, relative interest rate returns could mitigate pressure on the U.S. dollar to a degree but the prospect of a substantial improvement in real interest rate differentials appears limited at the moment and the dollar seems liable to have to take some of the strain resulting from the huge expansion in the U.S. budget deficit in the medium term.

Publicly Held Federal Debt to GDP



Source: Haver Analytics, TD Securities

What are the long-run factors at play?

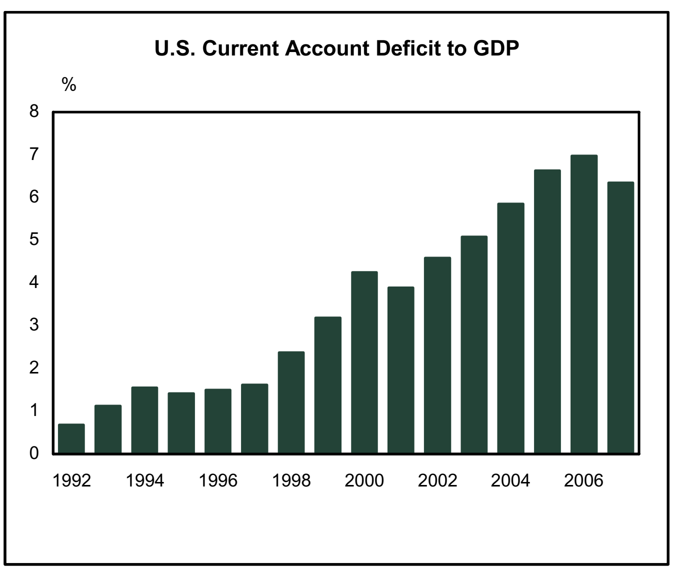
The current account

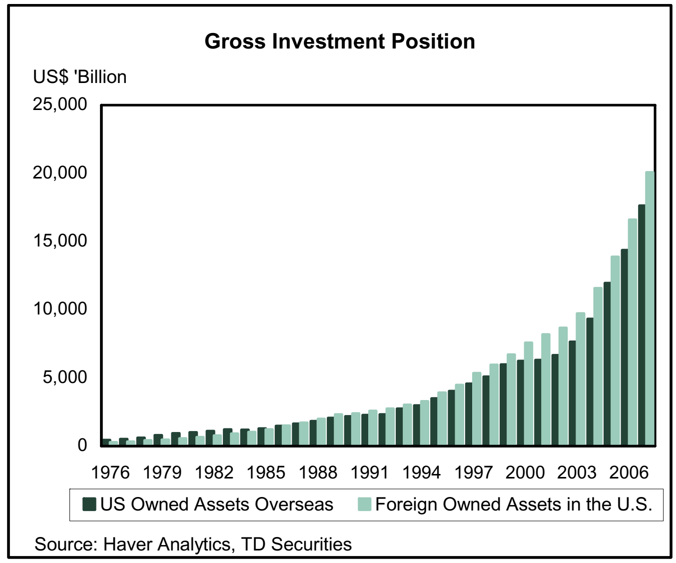
Current account (CA) deficits arise when the value of domestic investment exceeds the level of national savings generated to fund it. In this event, a country must of necessity borrow internationally to fund the shortfall. In a sense, current account deficits arise as a natural consequence of countries smoothing their national consumption in times of investment booms by borrowing against future income and lending internationally in time of excess domestic savings. Notwithstanding this natural mechanism for consumption smoothing, a structurally entrenched current account deficit, especially one arising from excessive national consumption, may have the undesirable effect of worsening the national net investment position and increasing the debt burden on the economy.

In the case of the U.S., one could plausibly argue that the source of the persistent current account deficits has shifted from a consumption smoothing motive to the result of excessive consumption, given the sheer persistence of the current account deficits. This is worrisome since it means that the driving forces have become structural or entrenched in the economy. Indeed, with the noticeable exception of 1991, the U.S. current account has been in a deficit position every year since 1982. During this period, not only has the deficit position persisted, but it has worsened significantly. In fact, the U.S. current account deficit has grown consistently from a meagre $4.0B (0.49% of GDP) in 1982Q3 to $183.1B (5.12% of GDP) by 2008Q2.

The national indebtedness of the U.S.

As we have noted earlier, current account deficits must be funded by either borrowing internationally or by domestic investors reducing their level of foreign lending – or a combination of both. As such, at any point in time, the accumulated value of past current account surpluses or deficits (combined with the capital gains/losses from the associated investments) will equate to the net investment position (NIP) – which is the value of the assets held abroad by U.S. residents less the value of the U.S. assets held by foreigners. Consequently, as a result of the persistent current account deficits, the net investment position of the U.S. economy has shifted dramatically from a mild surplus position of $360B (or 7.0% of GDP) at its historic peak in 1979, to a staggering deficit of $2.5T (equivalent to 22.5% of GDP) by the end of 2006. Meaning that the U.S.





economy is indebted to the rest of the world to the tune of over one-fifth of the national output, and to the extent that the U.S. continues to generate current account deficits, this position will worsen in the future.

The direction of the capital flows also offers some interesting observations. Indeed, while the gross investment abroad for the U.S. has grown substantially over the same period, the growth rate of inward bound investment has been much faster. This, to some extent, goes to show that foreigners have remained willing – and increasingly so – to fund the national financing gap in the U.S., though it remains possible that there could be a reversal in this willingness, if the necessary conditions arise.

This then begs a very intriguing question: is this global imbalance sustainable? If not, how will the adjustments come about? The answers to these questions are by no means easy, though they will clearly have important ramifications for the U.S. dollar, the U.S. economy and financial markets, and the world economy as a whole for a number of reasons. Indeed, at it most basic level, economic theory suggests that the current accounts should balance over time. Moreover, since the national debt level cannot grow forever, global economic balance requires that countries running persistent current account deficits must at some point in the future generate surpluses sufficient to offset the accumulated debts. In this case, it will mean that in the future the U.S. will likely be required to run current account surpluses as a means of bringing its current net external debt level to more sustainable levels. How this will happen is quite another thing.

Why does this matter for the dollar?

Any adjustment to the current imbalance must come in the form of either an appropriate decline in the value of the U.S. dollar to close the current account deficit (which is generally termed as an external adjustment) and/or a change in the world's investment-savings dynamics (or internal adjustment), with the rest of the world increasing consumption, while the U.S economy increases the level of national savings. The most likely outcome will be a combination of both factors.

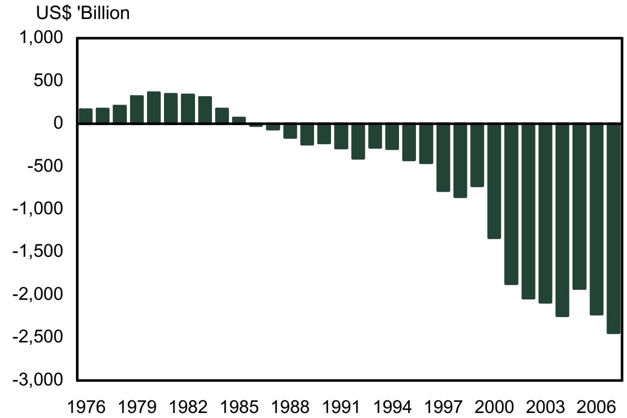
The first of these avenues of adjustment will be the natural response of the exchange rate (the equilibrating variable) in an effort to improve the competitiveness of U.S. products globally, thereby narrowing the trade deficit on account of the improvement in the value of U.S. exports. This is, in fact, the current scenario being played out, with the recent depreciation in the value of the dollar contributing substantially to the reduction in the current account to GDP ratio, which has fallen from a historic high of 6.56% ($208.2B) in 2005Q4, to a somewhat more reasonable (and perhaps more sustainable) level of 5.12% ($183.1B) in 2008Q2. This, to some extent suggests that the USD may have done its part in bringing the current account back to more sustainable levels.

Will the dollar remain the world's reserve currency?

It is hard to dismiss the real threats the dollar faces to its position of global supremacy, though we think that the position is somewhat secure as a replacement currency may be some way off – despite the attractiveness that the euro may currently offer as an alternative. Indeed, there is undoubtedly some circularity to the attractiveness of the dollar as a global reserve currency and the widespread appeal it generates. The logic to this circularity is similar to any commodity that acts as a medium of exchange, that is, widespread acceptance enhances its ability to act as a medium of exchange, which then enhances its acceptance further. With this in mind, the questions then become: can the U.S. dollar lose its appeal as the world currency? And if so, under what circumstances can this occur?

Two interesting dilemmas have emerged for international investors, central banks and other policy makers around the world from the recent depreciation in the value of the U.S. dollar, and their responses can have serious ramifications for the U.S. dollar in the future. First, there are the obvious losses incurred by central banks and other investors whose U.S. dollar denominated assets have fallen in value proportional to the depreciation in the value of the U.S. currency. And secondly, there will be the concern among countries with their currencies fixed to the U.S dollar about imported inflation. We shall call these two dilemmas the divestment and diversification choices, respectively.

Net US Investment Position



Source: Haver Analytics, TD Securities

Divestment and diversification dilemmas

There is little doubt that the decline in the greenback has brought substantial losses (in local currency terms) to global investors with dollar-denominated assets. For these international investors, the decision to divest out of U.S. assets will depend crucially on the alternative investment instruments available to them and their expectations for the future movements in the value of the dollar.

In the first, it is quite apparent that there are very few alternative financial instruments available that would be able to rival the superior liquidity and minimal default risks that U.S. government bonds offer. Nor can one easily find another country with the sophistication and financial depth that the U.S. financial markets offer. So from this perspective, one can argue that further decline in the U.S. dollar may be insufficient to push global investors away from the U.S. dollar or U.S. debts.

An alternative scenario is for countries that have pegged their currencies to the U.S. dollar to diversify their pegs to a currency basket or abandoning fixed exchange rates altogether. The first of these options appears to be the more plausible avenue from the current vantage point and would be easier to implement. In either case, the U.S dollar would face further downward pressure as the decision to discontinue the peg would reduce appetite for U.S. dollars and more importantly might have an adverse effect on investor's perception on the currency. And to the extent that we have seen some countries increase their holding of euros, and in some case require that their commodities be priced in that currency, we will likely see the prominence of the euro increase globally.

But despite this troubling trend for the dollar and the prospect of further depreciation in the future, we believe that the euro is unlikely to replace the dollar as the global medium of exchange for a number of reasons. Among them is the fact that the euro (which was introduced in 1999, and official launched in 2002) is still in its embryonic stages, and it will likely take some time before it can gain the requisite reputation that is required before it can be considered a viable alternative to the U.S. dollar. Also of note is the fact that the euro-economy region does not possess the level of financial debt that the U.S. economy provides, and with no top-tier financial center, it is unlikely to attract the volume of financial flows that would be required to achieve and maintain the status as a true reserve currency.

The bottom line

From the discussion above, we argued that at its 2008Q2 level, the U.S. dollar was fairly valued against other major currencies. However, the recent decision by the U.S. government to bail out the financial sector in a bid to clear up bank balance sheets and restore confidence in the financial system will likely add significant downward pressure on the USD (we estimate a potential 10% or so drop in the value of the dollar in real, broad terms) in the near to medium term. Nevertheless, we believe that the dollar will remain the principal currency of choice globally, though we think that it will likely lose some its lustre on the global stage as other currencies (such as the euro) increase in their prominence.

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Endnotes

[1] This is the spread between the yields of the 10-year U.S treasury and a weighted mean of the yield of the 10-year government bonds for the seven major economies

[2] This measure is used to capture the Balassa-Samuelson effect of traded goods prices, and is captured by the ratio of the domestic consumer price index to the domestic producer prices relative to the corresponding weighted average for the seven trading partners.

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Clarke, Peter B., and Ronald MacDonald. 2000. "Filtering the BEER: A Permanent and Temporary Decomposition." IMF Working Paper, WP/00/144.