

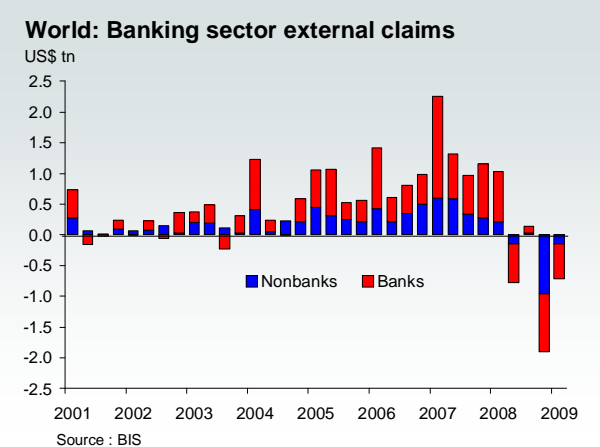


Executive Summary

- Global capital flows dropped steeply in the wake of the financial crisis, with an unprecedented outflow of foreign funds both from developed and emerging markets.
- This in turn had significant repercussions for real economy developments. By exacerbating the collapse in asset prices, capital outflows contributed to negative wealth effects on consumption and investment. And by draining some countries' banking systems of liquidity, it contributed to a significant squeeze in domestic credit.
- Big swings in capital flows also had major implications for exchange rates. The repatriation of foreign funds associated with a steep rise in risk aversion led to a surprising strengthening of the dollar and the yen. 'Safe haven' flows into US treasuries may also have contributed to holding down longer-term bond yields.
- These effects now appear to be unwinding. Since March, global asset prices have staged a significant recovery, and the available evidence also suggests a rebound in international capital flows. In some countries, net inflows have recovered to close to pre-crisis levels.
- If sustained, this should improve the chances of a solid economic recovery. Buoyant capital flows should help fund needed investment and reduce the risk of external liquidity crises in emerging markets.
- On the exchange rate side, however, it is not clear that a revival of capital flows will mean a full return to pre-crisis trends. So far, the rebound in flows has been associated with a weaker dollar, as US investors have reversed previous 'safe haven' flows and the dollar has again started to be used as a 'funding currency' to buy higher yielding assets.
- However the yen, which was also used for funding purposes in the pre-crisis period, seems to have shed this role – the result of short-term interest rates having fallen to low levels everywhere. And with US interest rates likely to rise faster than elsewhere in the medium-term, the dollar is also likely to lose this role in due course.
- Set against this there is a possible risk that some deficit countries will be 'de-rated' by the market, making it harder to attract capital flows and implying a weaker long-term average exchange rate. The UK, and Sterling, could be at particular risk.
- Capital inflows into US treasuries have remained surprisingly buoyant in recent months. However these flows may not be enough to hold down bond yields over the medium term, as they did prior to the crisis. As well as stronger growth and higher Fed rates, massive additional bond supply is coming through due to the large US deficit. A simple model of US bond yields suggests 10-year rates will approach 6% by 2012.

The crisis crushed capital flows...

The global financial crisis that began in the middle of 2007 had a massive impact on international capital flows. In the boom years preceding the crisis all forms of capital flows, including FDI, portfolio investment, cross-border bank lending and short-term speculative flows, were buoyant. The BIS data on external claims of BIS banks show an increase of some US\$3.6 trillion in the first half of 2007 alone. Much of this increase resulted from bigger claims on other banks, reflecting the rapid internationalisation of banking in this period.



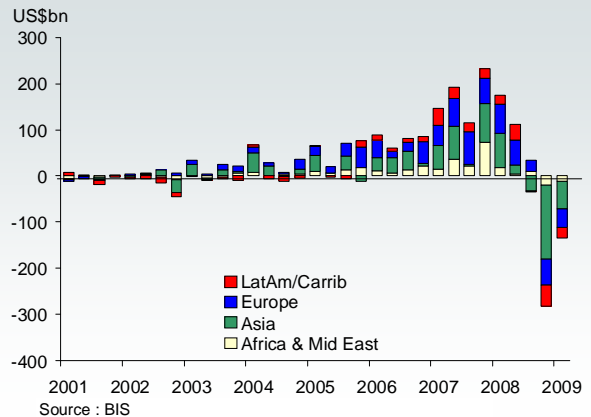
Flows to non-banks began to tail off from the third quarter of 2007, but flows to banks remained surprisingly buoyant until mid-2008 when serious concerns began to develop about the stability of the global banking system. These concerns gave way to full-scale panic in the wake of the Lehmans collapse, so that in the final quarter of 2008, external claims of BIS banks fell by a staggering US\$1.9 trillion – by far the biggest ever quarterly drop recorded. This decline continued into 2009Q1, with external claims falling by a further US\$0.7 trillion.

This implosion of global capital flows had profound effects on financial markets and also the real economy. The collapse in global asset prices was exacerbated by the withdrawal of foreign funds, contributing to negative wealth effects on consumption and investment.

And by draining some countries' banking systems of liquidity, the collapsed in flows also contributed to a significant squeeze in domestic credit, hitting output growth hard. This problem was especially acute in a number of emerging market countries, whose

banking systems had become heavily reliant on foreign sources to fund balance sheet growth.

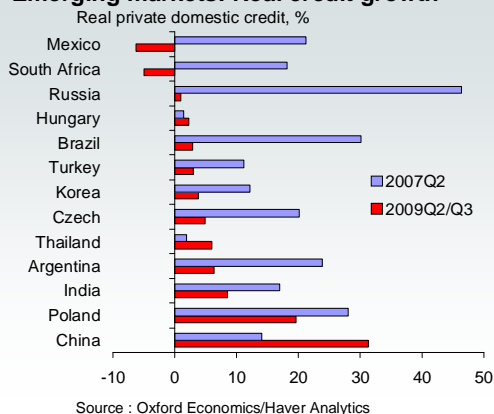
World: Banking sector claims on emergers



Capital flows to emerging market countries were also running at very elevated levels in the run up to the crisis, but inflows decelerated markedly during 2008 and turned into massive outflows by the end of the year. These outflows reflected not only increased concerns about country risk in the face of an incipient global recession but also a massive preference for liquidity which led to an indiscriminate liquidation of emerging market investments.

The external claims of BIS banks on emerging markets contracted by US\$280 billion in 2008Q4, and by a further US\$134 billion during 2009Q1. The biggest outflows were from Asia, totalling US\$230 billion during 2008Q3 to 2009Q1, and including very large outflows of short-term funds from China. Large net outflows were also seen from eastern Europe, Latin America and Africa & the Middle East.

Emerging markets: Real credit growth

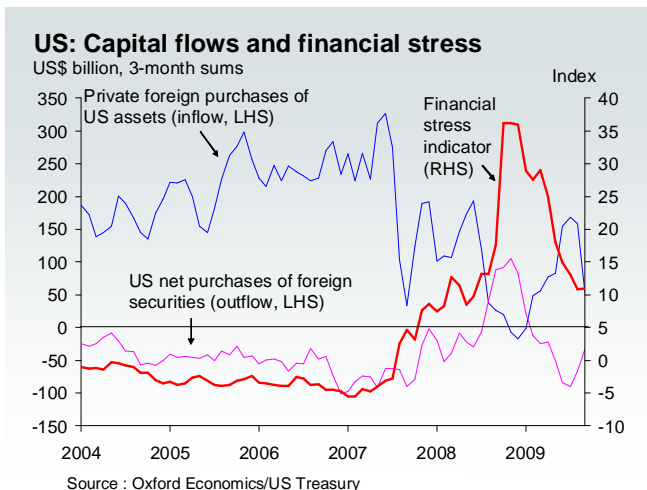


The collapse in capital inflows was followed by a sharp deceleration in the growth of credit to the private sector among the emergers. In 2007Q2,

many emergers were seeing private credit growth of 20-30% per annum, but by the second/third quarter of 2009, there had been dramatic slowdowns in many countries. In Mexico, South Africa, Russia, Hungary, Brazil and Turkey real private credit growth had fallen to very low levels or even turned negative. The big exception was China, where the banking sector was largely isolated from foreign flows, and where state control allowed a deliberate policy of rapid credit expansion from late 2008 to counter the slowing economy.

...but a rebound now under way

Since the second quarter of this year, however, global capital flows appear to have rebounded. This has coincided with the steep drop in financial stress levels and significant expansion of risk appetite among global investors, and with the resultant big rally in key asset prices.



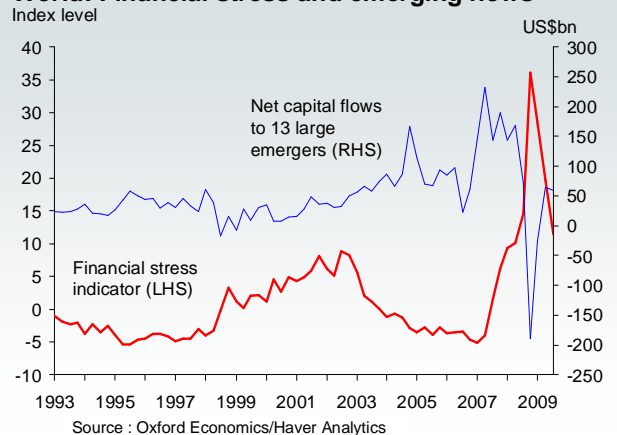
Among the major industrialised economies, the second and third quarter of this year saw a revival in both inflows of foreign capital and foreign investments abroad. In the US, domestic investors bought a net US\$166 billion of overseas stocks and bonds in the five months to August, almost five times the level of the first three months of the year, and an outward flow not dissimilar in scale to that seen prior to the crisis. Meanwhile, foreign private sector purchases of US assets totalled over US\$200 billion in the same period - again a historically high level.

In the UK, 2008Q4 and 2009Q1 had seen massive withdrawals of foreign investment matched by huge repatriation of overseas funds, in large reflecting part foreign banks' reduction of exposure to the UK banking sector and UK banks' efforts to reduce the

scale of their overseas exposures. In the second quarter, the scale of both sets of flows diminished markedly. Net sales of overseas assets fell by three quarters from Q1 to just £19 billion, while net disinvestment in UK assets by foreigners fell more than 90% to just £8 billion.

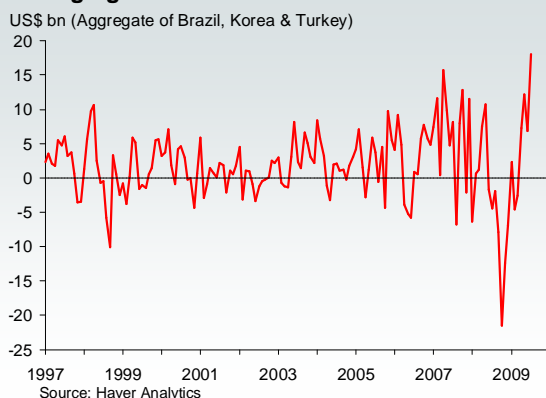
In the Eurozone, the pattern was similar, with signs of greatly renewed interest both in purchases of overseas assets and foreign purchases of Eurozone assets – foreign net purchases of Eurozone equities in July were US\$27 billion, and in the six months to July US\$100 billion.

World: Financial stress and emerging flows

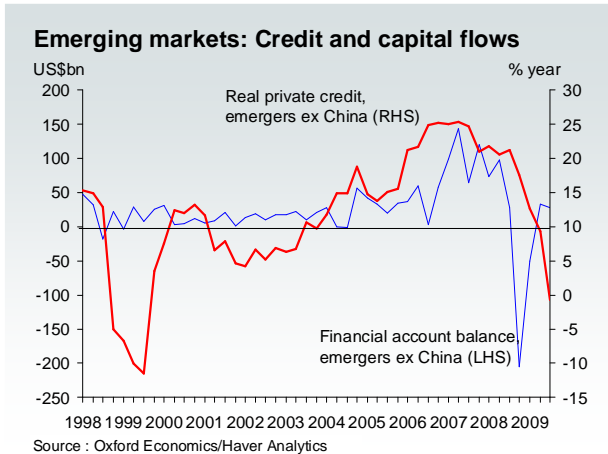


These patterns suggest a significant normalisation in global investment activity over recent months, and the same is also true with developments in emerging markets. Aggregating the net financial account balances of 13 large emergers we find that in Q2, there was a net inflow of some US\$65 billion, compared to outflows of over US\$200 billion over 2008Q4 and 2009Q1. The Q2 net inflow was rather lower than in the immediate pre-crisis period, but similar to the long-term average.

Emerging Markets: Portfolio inflows



Moreover, early indications for Q3 suggest things have improved even further. Monthly data for portfolio flows for Korea, Brazil and Turkey suggest a further strengthening of net inflows in July and August, to levels actually exceeding those seen in mid-2007.



This finding tallies well with recent developments in Oxford Economics' financial stress indicator, which has dropped sharply in recent weeks to levels last seen more than a year ago. The dash for the exit that occurred in late 2008 and early 2009 appears to have given way to a rebuilding by investors of their positions in emerging markets.

This rebound in capital flows ought to have positive implications for global growth. Insofar as the squeeze on banking sector liquidity is eased, then downward pressure on domestic credit growth should also ease. This is especially the case in emerging markets where the earlier collapse of foreign inflows had such a marked impact.

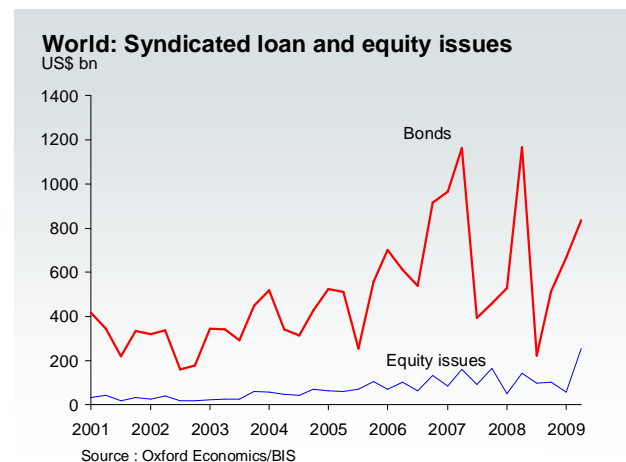
It may nevertheless take some time before some battered local banking sectors (e.g. in Russia) start to aggressively expand domestic lending again, and in the meantime, activity will remain constrained by the marked deceleration of credit growth over recent quarters. Preliminary estimates for Q3 suggest real domestic credit growth for 12 large emergers excluding China was slightly negative on an annual basis for the first time since the aftermath of the emerging markets crisis of the late 1990s.

The recovery of global risk appetite that lies behind the rise in capital flows also ought to reduce the danger of external liquidity crises in the more vulnerable emerging markets. This in turn reduces the danger of a renewed rise in global financial

stress levels which would pose a danger to global recovery prospects.

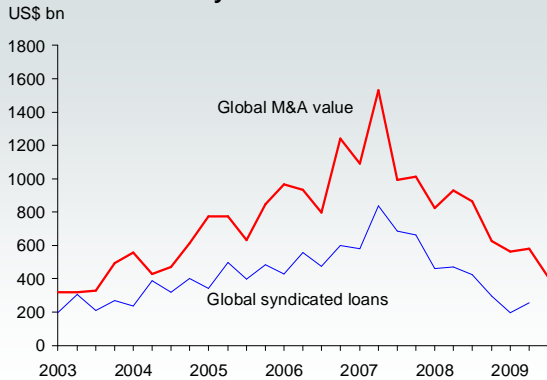
For the major markets too, the reactivation of global financial markets should be good news for growth. As with the emergers, the removal of foreign funding sources caused problems for the domestic banking systems of some major economies too, most notably perhaps the UK. This increased the pressure on banks to shrink their balance sheets, meaning slower credit growth.

A reopening of foreign credit lines should ease these pressures on domestic credit, and the increased risk appetite of global investors is also helping firms bypass the banking system and find other sources of finance. International bond issuance in 2009Q2 was quadruple the level of 2008Q3 at US\$840 billion. And while this was led by bank issuance, much of which was state guaranteed, total non-financial corporate issuance was up from US\$47 billion to US\$172 billion. Meanwhile new equity issues soared in 2009Q2, to US\$255 billion, a new record.



There are still areas of financial market activity which remain subdued, however. Syndicated loans agreed in 2009Q2 did rise, to US\$255 billion, but this was still almost 50% down on the year and 70% down on the peak levels of 2007Q2. Global M&A flows also remain well down on peak levels. Initial estimates for 2009Q3 have these at US\$412 billion, less than half the level of a year ago, and only around a quarter of the peak quarterly level of June 2007. This would appear to reflect the closer link these kinds of flows have to real economic activity, as opposed to global financial market conditions.

World: M&A and syndicated loan flows

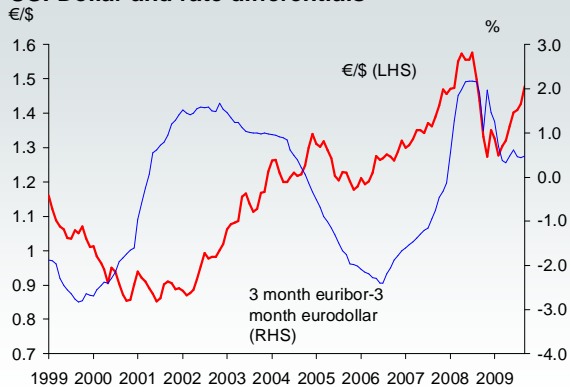


Source : Oxford Economics/Dealogic/BIS

Important implications for currencies...

With signs that global financial markets are normalising, should we also expect a return to the trends seen in currency and interest markets prior to the crisis?

US: Dollar and rate differentials



Source : Oxford Economics/Haver Analytics

The trends of recent weeks might at first sight suggest so. Most notable has been the rapid weakening of the dollar - €/US\$ has risen from a low around 1.28 in February to 1.49 now, and the dollar's trade-weighted index has depreciated by some 9% over the same period.

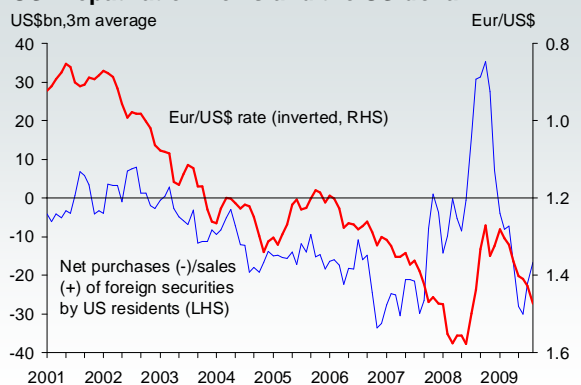
Unlike in the 2006-2007 period, however, recent dollar weakness against the euro has not been driven by developments in short-term interest rate differentials, which have remained broadly unchanged as a result of short rates having collapsed to very low levels in both the US and the Eurozone. Instead, it seems the euro's gains are more a reflection of a generalised dollar weakness.

An important factor behind the recent dollar weakness has been the reversal of 'safe-haven' and repatriation flows that occurred during the crisis.

Looking for safety and liquidity, US investors brought their overseas funds home and parked them in Treasury debt, and many foreign investors did likewise. Over recent months, however, as global risk appetite has recovered, these funds have started to exit US assets and move back overseas.

The extent of the recent swings in US residents' purchases and sales of foreign assets are remarkable, and tally well with the swings in the dollar seen over the last two years. Prior to the crisis, net purchases of foreign stocks and bonds were running at around US\$30 billion per month, and the dollar was on a steady weakening path. As the crisis broke, these flows went into reverse, so that US investors in late 2008 were selling a net US\$40 billion of foreign securities per month. The dollar rallied strongly, and largely unexpectedly, in this period.

US: Repatriation flows and the US dollar



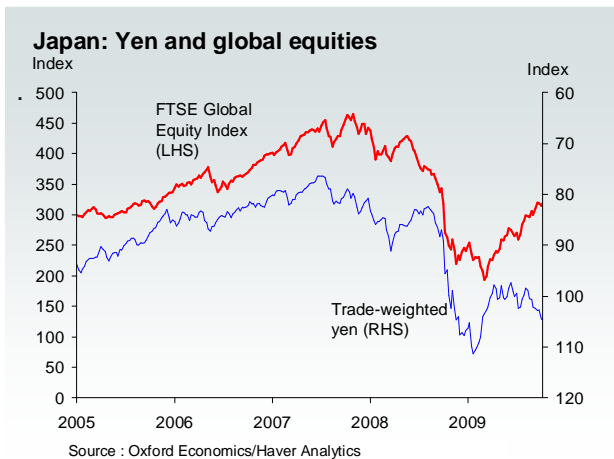
Source : Oxford Economics/Haver Analytics

Most recently, US investors have returned to being net purchasers of foreign assets, on a similar scale to the pre-crisis period. Insofar as this simply reflects the relaxation of financial stress, this process may just be a stock adjustment, which will come to an end naturally once investors reach their new 'target' level of foreign asset holdings and cease to influence the dollar. Interestingly, August data did suggest a significant slowdown in US investors' accumulation of overseas assets, although it should be noted that with financial stress levels still high by historic standards, further reversals of 'safe haven' flows might yet occur.

Moreover, there also seems to be some evidence that the dollar has once again assumed the role of a 'funding currency' for 'carry trades', in which low-yielding currencies are borrowed in order to invest in

higher-yielding assets – in particular emerging market assets.

In the near-term, this suggests that the dollar could remain under some pressure, at least against the emerging currencies. The position against the major currencies looks less certain, though, given that short-term rates are low everywhere and investors thus have a wide choice of possible funding currencies.



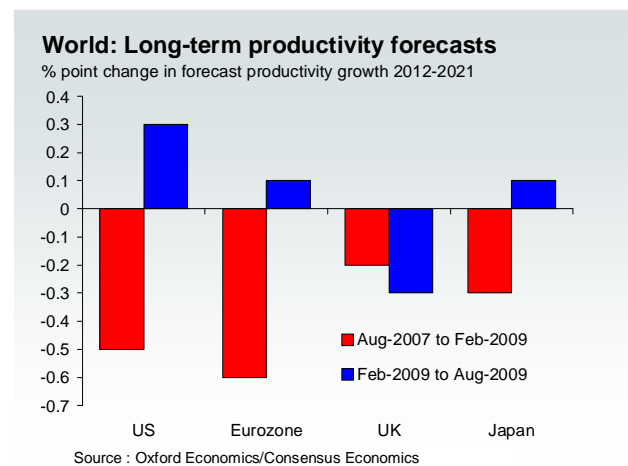
The yen already seems to have shed its status as a funding currency. From 2005 to mid-2007 the low-yielding yen depreciated substantially, with a close negative correlation with global stock markets. But in the recent period of rallying global financial markets, the yen has actually gained ground. With rates at low levels across the major economies, there is no longer the incentive to borrow mostly in yen to finance investments in other countries. Another example may be the UK pound – this was a ‘target’ currency in the pre-crisis period, with very low UK rates there is now some evidence that it is being used for funding purposes instead.

The dollar’s current status as a funding currency could also quickly change as interest rates in the US start to show signs of rising. Our forecasts suggest that short-term rates will start to rise earlier in the US than in the other major economies (in the second half of next year), and that by the end of 2011 a considerable gap will have opened up between US short yields and those in the other major economies. This ought to boost the dollar in the same way as happened in 2005.

Another possible legacy of the financial crisis on exchange rates is the possibility that markets might ‘de-rate’ certain currencies on the basis of increased

risk or on the basis that some countries’ future growth and investment returns will be lower in the medium-term due to structural factors – for example a more slowly growing financial sector or a long-standing fiscal problem that raises taxes and curbs private investment.

One obvious candidate for such a ‘de-rating’ would be the dollar. However evidence that investors now see lower US investment returns in the medium-term - relative to other major economies - is hard to find.



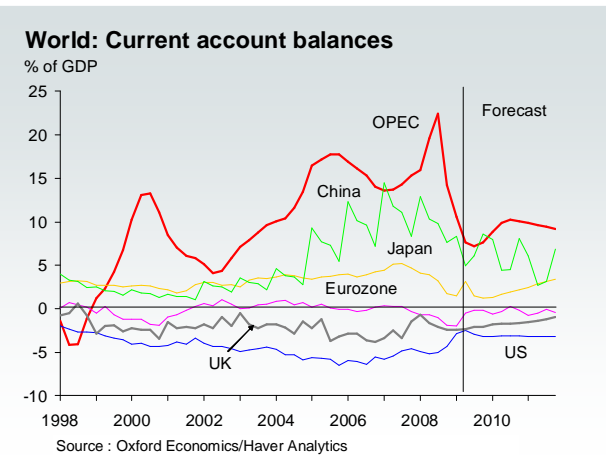
Surveys of expected productivity growth by Consensus Economics between August 2007 and February 2009 did show a notable drop for the US – but a bigger drop for the Eurozone. And taking into account the latest survey, in which US long-term, productivity growth forecasts have been revised up, the net change from the pre-crisis period is less than in both the Eurozone and the UK. Indeed, the UK seems on the basis of this evidence to be the country whose likely long-term investment returns have been marked down the most, perhaps implying the ‘de-rating’ risk is greatest for Sterling. This may partly explain the recent weakness of the currency.

...and also for bond markets

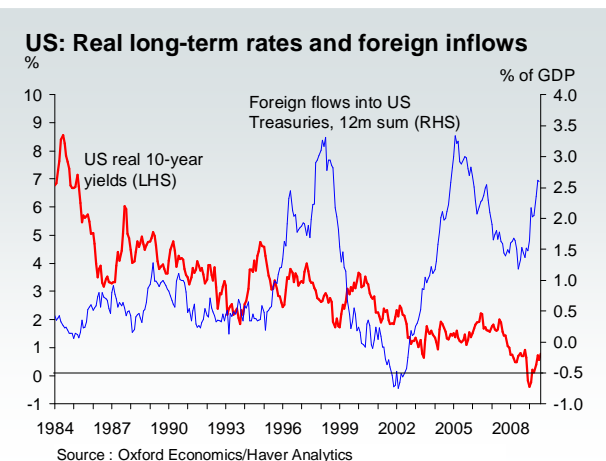
In the pre-crisis period, another important side-effect of the buoyancy of international capital flows was the compression of US Treasury yields due to heavy official purchases, made by countries ‘recycling’ their large current account surpluses. Should we also expect a return to this situation, now that capital flows have started to recover?

Again, the answer appears to be ‘perhaps not’. The first point to note in this regard is that the global imbalances that triggered the yield compression of

the pre-crisis period have been reduced substantially by the recession and the drop in commodity prices. The US current account deficit has dropped from over 5% of GDP to just 2.5% of GDP, and there have been substantial decline in the surpluses of China and the OPEC countries. And while these imbalances may start to grow again as the global economy recovers, our forecasts suggest they will remain well below pre-crisis levels. One reason for this will be a shift to more domestic-led growth in the emerging markets as a result of the weakness of domestic demand in the major economies, and stimulus efforts and structural adjustments in the emergers.



As a result, it seems likely that the flow of official purchases of US treasuries will not scale the highs seen in the pre-crisis period, and indeed this has already happened. Official Treasury purchases in the twelve months to August totalled only 0.3% of US GDP, compared to more than 1.5% of GDP in mid-2007.

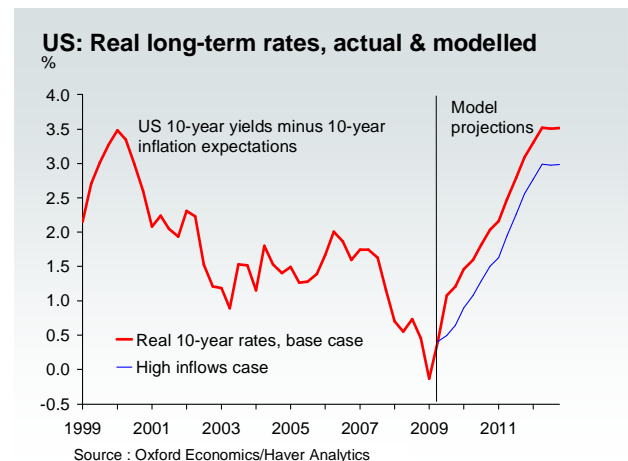


The reason this has not already had an impact on US Treasury yields is that private sector purchases

have risen steeply over the same period, keeping overall foreign Treasury purchases at a relatively high 2.5% or so of US GDP over the 12 months to July. These purchases have partly been the result of a higher supply of US bonds due to the rising deficit, which has obliged international fund managers to increase their purchases to maintain benchmark weightings. But they also resulted from 'safe haven' flows, some of which can be expected to be reversed.

Moreover, looking forward it seems likely that US bond yields will come under significant upward pressure even if total foreign inflows into Treasuries remain at recent quite robust levels.

A simple model of US real 10-year bond yields, based on economic growth, real Fed yields, the budget deficit, the volatility of interest rates and foreign Treasury purchases certainly points in this direction. Assuming the latter two variables (volatility and inflows) stay at today's levels (and it is worth noting here that the volatility variable is close to its long-run average at present), significant upward pressure on real yields can be expected over the next couple of years from rising real Fed rates, stronger economic growth and the rising budget deficit.



The model suggests that real 10-year yields will increase from around 0.6% at present (the inflation variable used is 10-year inflation expectations) to 3.5% by 2012, implying nominal bond yields approaching 6%. Even if we assume that foreign inflows return to their historic highs around 3% of US GDP per annum, real yields would still reach 3%, implying nominal yields around 5.5%.

Even these projections may prove over-optimistic, as some estimates of the sensitivity of bond yields to increased fiscal deficits are higher than those embedded in our equation. While our equation implies that a 5% of GDP rise in the US deficit would raise real 10-year yields by 0.5%, IMF estimates suggest an effect as much as three to four times as high.

Conclusion

Global capital flows have shown signs of recovering smartly over recent months, following massive declines during the financial crisis, in the wake of a marked drop in financial stress and a recovery in global investors' risk appetite. In some emerging countries, inflows have already returned to pre-crisis levels.

This is positive news for global growth, as it implies an increased flow of funds for investment, both directly and indirectly. In the former case, increased corporate bond and equity issuance such as seen over recent months provides an important channel by which firms can bypass a banking sector still hobbled by bad loans and reluctant to expand lending.

In the latter case, increased capital flows will help by lessening the intense squeeze on liquidity in the banking systems of a number of countries that developed during the crisis and led in turn to a marked decline in domestic credit growth. The revival of capital flows should also reduce the risk of emerging market external liquidity crises, which would constitute 'aftershocks' of the financial crisis and could drive up risk aversion again.

The rebound in global capital flows does not, however, necessarily mean a return to pre-crisis trends in exchange rates and bond markets. While the dollar has weakened recently, this looks to be mostly the result of a reversal in 'safe haven' flows that occurred during the crisis. Interest rate differentials, important in explaining the dollar bear-trend in the pre-crisis period, have not led the recent move and are likely to move in the dollar's favour in the medium-term. Meanwhile the yen has not resumed the weakening trend seen before the crisis, as a result of short-term rates having dropped to near zero across the major economies.

There is also the possibility of currencies being 'de-rated' by the market as a result of medium-term structural economic damage caused by the financial crisis. An obvious candidate for this is the US dollar, but surveys of long-term productivity growth expectations do not offer much support for this view, and actually suggest Sterling may be at greater risk.

On the bond market side, we also have our doubts about the likelihood of a return to the pre-crisis trend of compressed longer-term yields. Although foreign inflows into US Treasury debt were quite strong in the year to July, this masks a significant decline in official inflows, resulting from reduced global imbalances. Part of these inflows were also 'safe haven' flows that are likely to be at least partly reversed.

Moreover, even a historically high level of net foreign Treasury purchases will, according to our estimates, be unable to prevent yields from rising sharply in the face of rising Fed rates, stronger growth, and sharply increased US fiscal deficits.