

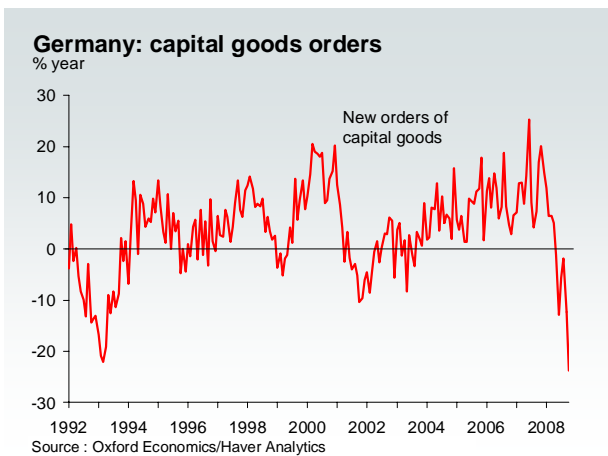


Executive Summary

- The global growth picture has deteriorated dramatically since the end of the third quarter, with industrial production, orders and exports going into freefall. Consumer demand continues to weaken, investment is plunging, world trade is slowing fast and unemployment is set to rise steeply.
- 2009 is set to be the worst year for the global economy since 1945, with GDP falling by around 2% in the major economies and growth slowing sharply in the emerging world. The weak state of the global banking sector, high unemployment and the decline in household wealth are likely to mean the eventual recovery will be slow – with a real risk of a slide into deflation and a prolonged period of weak growth.
- As short-term interest rates fall towards zero, policymakers are increasingly exploring alternative policy approaches to fight the recession and the risk of deflation. Fiscal stimulus packages have been announced in Europe, Asia and the US - but the actual size of some of these packages is unclear, and there are some doubts about the efficacy of fiscal stimulus especially in the near term.
- Central bank policy is also shifting away from using changes in interest rates, and towards 'quantitative easing' (QE), the direct expansion of the money supply. QE is already under way in the US, with the Fed purchasing a wide range of assets and pumping additional base money into the system by boosting bank reserves.
- The evidence so far suggests that while the Fed has staved off the risk of a monetary implosion, the banking sector has not used its increased reserves to significantly expand lending but rather to accumulate cash and other 'safe' assets.
- The Fed has scored some notable successes, however, in bringing down long-term yields and some key borrowing rates such as mortgage rates and investment grade bond yields.
- So far there are few signs that the ECB is set to follow the Fed and shift toward QE, but monetary developments in the UK suggest QE might make sense there. Central banks are likely to be reluctant to take this step due to the risks associated with the policy – particularly the danger of creating excessive base money which could leak into exchange rate depreciation or inflation.
- Increasingly however, the major economies are shifting towards policy approaches such as QE last seen during the 'lost decade' in Japan. Even more non-standard approaches than those now in train in the US, including central bank purchases of equities and direct financing of government deficits, cannot be ruled out.

Growth outlook weakens dramatically...

The outlook for global growth has deteriorated dramatically in recent weeks. Both the hard data and surveys point to sharp drops in output and a collapse in new orders. In part this reflects strong consumer retrenchment - consumer spending in the US, dropped at an annual rate of almost 4% in Q3 and looks likely to fall at a near 5% annualised rate in Q4. And the consumer is under severe pressure in many parts of Europe, too.

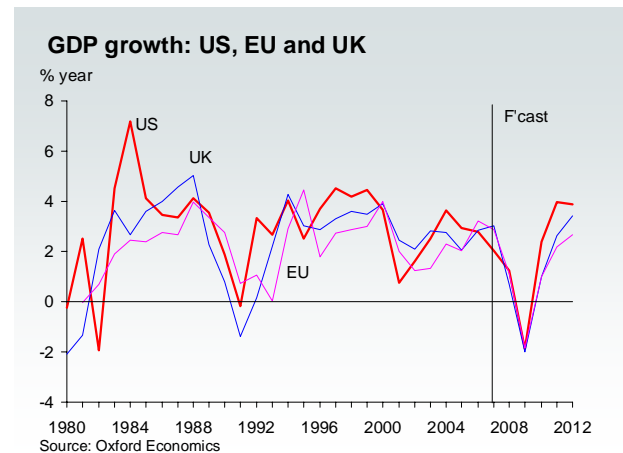


But plunging investment demand is rapidly taking over as the key factor dragging down the global economy. The intensification of the financial crisis in September-October appears to have shattered business confidence and we have now entered a period of substantial investment cutbacks and destocking as firms anticipate further falls in final demand.

The turn in the investment cycle is starkly illustrated by a slew of recent data. In Germany – the world's leading investment goods producer – new orders for capital goods in October were 24% lower than a year before. In the US, machine tool orders in October were 30% down on a year before, and in Japan machinery orders were 15% down on the year in the same month.

Business is also moving into a period of significant labour shedding. This process is most advanced in the US, where November payrolls dropped by more than 500,000 and total job losses in the last three months have come to 1.2 million – the worst such period since 1975. A dramatic worsening of the jobs picture is underway in parts of Europe, too, with steep rises in unemployment in countries such as the UK and Spain.

World trade is also slowing fast, helping to spread the recession to the previously rapidly growing emerging markets. Container trade between Asia and Europe is falling after rising more than 15% last year, and freight rates have collapsed by more than 90% from their May peaks. As well as falling demand, this also reflects severe problems in obtaining trade credit in some parts of the world - another manifestation of the credit crunch.



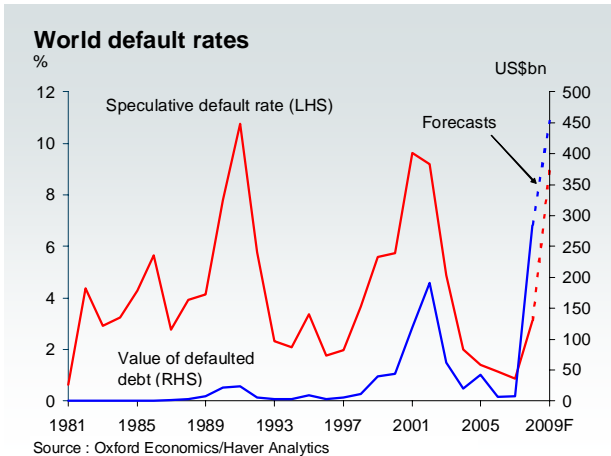
All this adds up to a global downturn which is set to be much more severe than seemed likely at the end of Q3. GDP in the major economies is likely to shrink around 1% in the final quarter of 2008 and as much as 2% in 2009 as a whole. With emerging market growth also slowing rapidly on the back of collapsing export demand and large capital outflows, world GDP is set to shrink in 2009, making for the worst single year for the global economy since 1945.

...and the recovery set to be slow

As well as the outlook for the next few quarters being extremely weak, there are good reasons for thinking that the eventual recovery will also be slow. Chief among these remains the weak state of the global banking system. In October, the banking systems of the major economies came close to collapse and were only rescued by a combination of large scale recapitalisation by governments and the issuance of wide-ranging guarantees of deposits and interbank borrowing.

The rescue operations in the banking sector have not, however, reversed the squeeze on lending. Bank balance sheets remain strained, with the rapid slide into recession starting to generate an explosion of bad debts. In the year to date, corporate defaults have totalled more than US\$300 billion - US\$100

billion more than the last cyclical peak in 2002. Bad debts are rising fast in the UK too, and it is increasingly likely that the banking sector will require a further infusion of capital in 2009.



Falling asset prices are likely to prove a further drag on recovery in the banking sector and the wider economy. House prices in the UK and US are down 15-20% on the year, and look to have some way to go before bottoming out. Prices are also dropping in most of the Eurozone and in parts of Asia. And commercial property prices are also falling steeply - US and UK prices are down 15-25% and the ultimate adjustment may be far greater. This poses major risks for many financial institutions which have lent heavily to the sector.

Massive wealth destruction from the combined effect of steep falls in housing and stock prices, plus a sharp rise in unemployment, will keep consumer spending subdued into 2010. US personal sector net wealth is set to fall some 30% from its peak level by end-2008. Unemployment is forecast to rise above 8% by the end of next year, cancelling out the positive effects on real income from the recent sharp drop in energy prices.

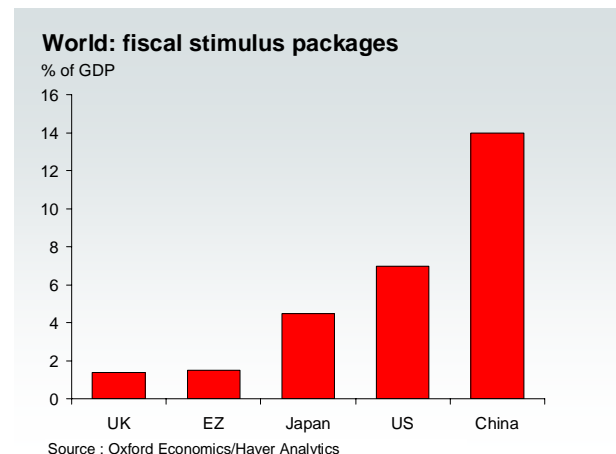
Against this backdrop, the risks of a slide into deflation and a prolonged period of weak growth along the lines of that seen in Japan in the 1990s are very real. Our forecasts already see consumer prices falling in Japan next year, and the annual growth in the CPI dropping below 1% in most of the other major industrial countries.

With large output gaps set to open up, risks to these inflation forecasts are clearly skewed to the downside. We forecast an output gap of 6% of GDP

in the US next year, with gaps of 4.5% in the UK and 3% in the Eurozone – all somewhat larger than in recent recessions.

Policymakers turn to fiscal stimulus...

The deterioration in the economic outlook has left policymakers scrambling to frame an effective response. Large cuts in short-term interest rates have occurred over the last three months, with US rates down from 2% to effectively zero, Japanese rates down to just 0.1%, Eurozone rates down from 3.75% to 2.5%, and most spectacularly, UK rates down from 5% to 2%. It now seems inevitable that policy rates in most of the major economies are set to fall to historic lows over the next few months.

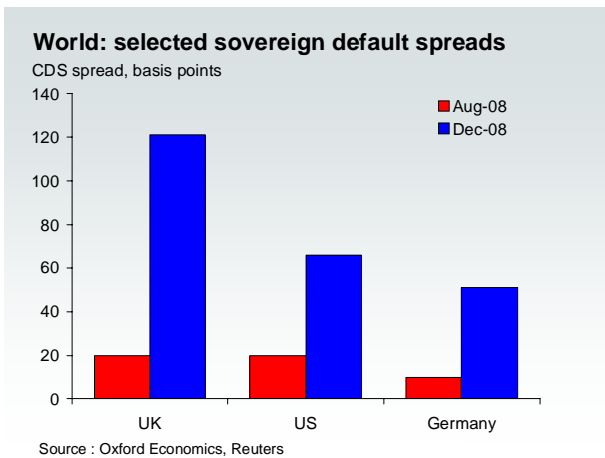


Fiscal stimulus, deeply unfashionable for much of the last thirty years, is also suddenly back in fashion. China has announced measures worth up to 14% of GDP, the new US Administration is considering a 7% of GDP boost, Japan has announced a package worth around 4.5% of GDP, and in Europe stimulus packages averaging around 1.5% of GDP have been announced in the major countries.

How big a fiscal stimulus ultimately takes place, however, is as yet unclear. The amount of real extra money in the Japanese and Chinese packages appears to be only a fraction of the headline numbers – perhaps as little as a third. And in the US and Europe, many of the packages remain no more than proposals which may ultimately be watered down.

One reason for this is growing unease in financial markets about the scale of the likely build up in government debt over the next few years. The combination of a deep recession, fiscal stimulus and bailouts of the banking sector and other sectors will

see fiscal deficits balloon in 2009 and 2010 – possibly to double digit levels as a % of GDP in countries like the US and UK.



This prospect has led to a sharp rise in the cost of insuring against government debt default. Since August, US sovereign credit default swaps (CDS) have widened from 20 basis points to 66, and UK CDS spreads from a similar level to over 120 basis points. Even German CDS spreads have reached record levels

Rising fear of default has so far not led to an increase in government bond yields, as the increased risk premium has been offset by the sharp drop in short-term rates. But there is a risk that an overly expansive fiscal stance could prevent long-term yields falling as fast they might otherwise do – with a negative impact on growth.

There are other concerns about fiscal expansion, too. Tax cuts may, in the current environment of depressed consumer confidence, be largely saved rather than spent. Insofar as that prevents an even larger cutback in spending to finance a desired rise in savings, however, there will still be a positive impact. Perhaps more worryingly, infrastructure-based programmes such as those being proposed in China and the US will take time to get off the ground, and will do little to boost activity in the next few quarters.

...and to the printing press

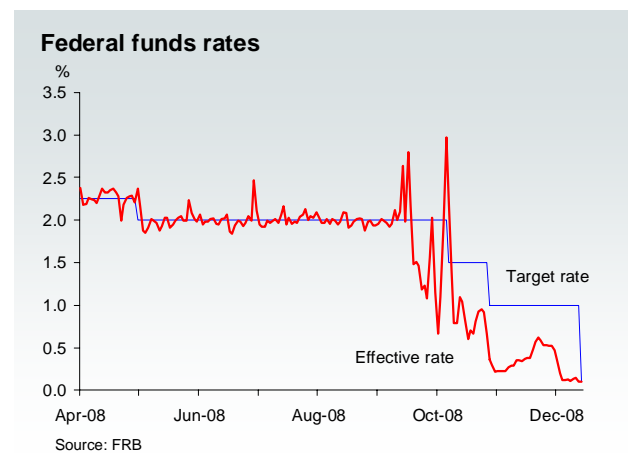
Concerns about the efficacy of fiscal policy are a key factor behind the most dramatic shift in thinking among policymakers in recent weeks – away from targeting the demand for money through changes in rates, and towards ‘quantitative easing’ (QE), the direct expansion of the money supply.

The main reason QE has come on to the policy agenda, however, is that the power to combat recession – and the growing risk of deflation - through lower interest rates is close to being exhausted. This is particularly the case in the US, where even before the Fed cut the target rate to 0-0.25% on December 16, the effective Fed funds rate had already dropped to just 0.1%. The Fed has been facing the so-called ‘zero bound’ for some weeks.

At the zero bound, an important channel of monetary policy ceases to function – economic activity can no longer be stimulated by reducing short-term rates and bringing down the cost of credit. Other monetary policy channels are potentially still operational, however.

The central bank can attempt to increase the quantity of credit provided by banks by boosting bank reserves, hoping that the additional reserves will be used to purchase income earning assets and make loans.

Central banks can also try to directly influence long-term rates, without moving short-term rates or trying to boost bank credit. They may do this via direct purchases of long-term securities or by trying to influence market expectations of the future path of short-term rates – for example by committing to keep the latter at a low level for a substantial period of time.



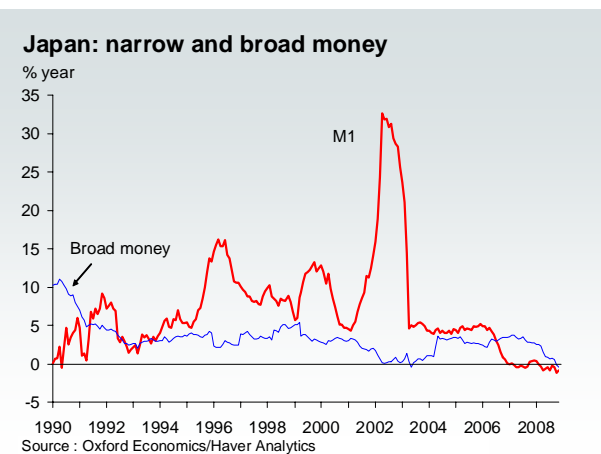
Since October, the Federal Reserve has started to aggressively use these alternative monetary policy channels. Reserve bank credit outstanding rose from US\$888 billion in mid-September to US\$2.1 trillion by December 10th and the aggregate reserves of the banking system rose by US\$600 billion over the same period.

Meanwhile, the Fed has also started to purchase a number of classes of securities with the aim of bringing down borrowing costs for the wider economy. On top of purchases of commercial paper begun in October, the Fed has started a programme to buy up to US\$800 billion of asset-backed securities, including mortgage backed securities. As a result of these moves, narrow money (M1) growth surged from near zero in September to annualised rate of 50% in the 12 weeks to December 10.

The Fed has also said the Fed Funds rate is set to remain 'exceptionally low' for some time – a clear attempt to influence the term structure of interest rates and bring down longer yields.

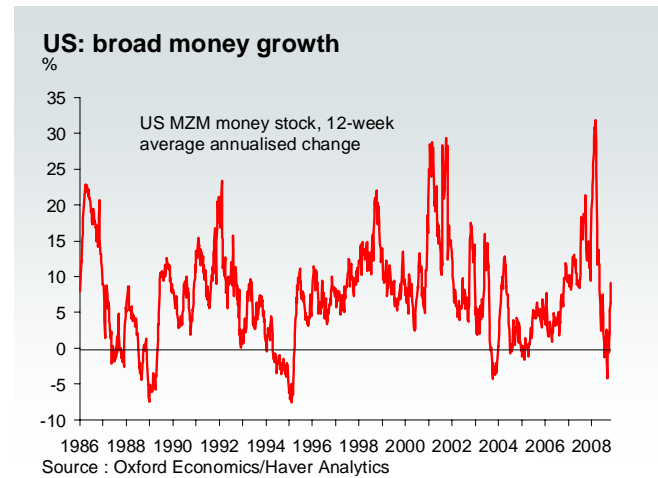
QE shows mixed results so far...

How effective is this policy shift likely to be? Pushing extra reserves into the banking system only works if banks are prepared to use them to increase credit creation, rather than simply hold excess reserves. In both the US of the 1930s and the Japan of the early 2000s, the bulk of the increase in reserves in the system was held as excess reserves, blunting the stimulative impact of central bank policy. In Japan, while narrow measures of money rose rapidly in 2001-2002, broader measures of money stagnated as credit to firms and households shrank.

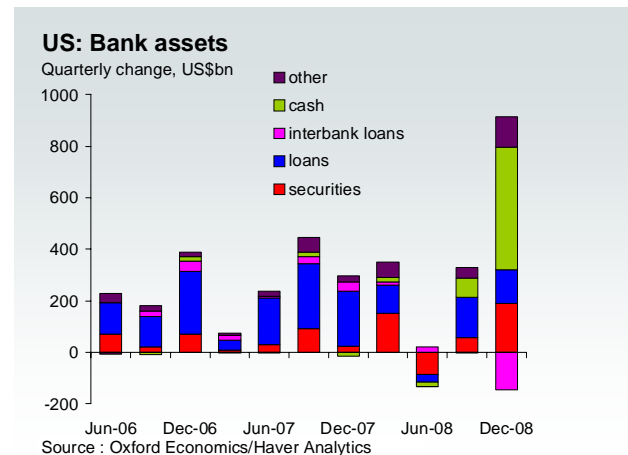


The evidence so far suggests QE may be running into the same kind of problems. At the aggregate level, things look reasonably promising. Broad money growth in the US has risen by far less than that of narrow money, with the 12-week annualised rate for MZM picking up to 9% by mid-December. But that is a big improvement from the -4% rate seen in early October. The Fed's actions appear to

have halted a dangerous slide toward monetary implosion.



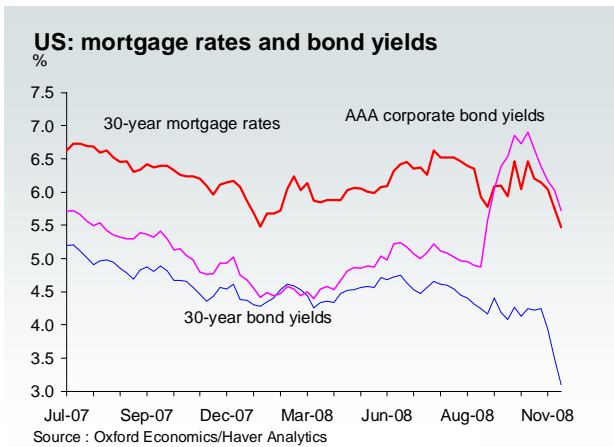
A more detailed look at developments suggests a less encouraging picture, however. More than 90% of the reserves of the US banking system are currently being held as excess reserves, suggesting the massive expansion of base money has so far failed to show up in greater lending.



Bank balance sheet data confirms this. US bank assets have risen sharply since the end of Q3, by around US\$770 billion. But more than 60% of this rise has taken the form of increased cash holdings, and the share of total 'safe assets' including treasury securities is over 70%. The share of loans has been just 17%, and even this is almost certainly inflated by the 'forced' expansion of bank balance sheets resulting from firms drawing down previously agreed credit lines in the expectation of further tightening of credit availability by banks.

The second plank of the Fed strategy, aimed at driving down borrowing costs, has scored some notable successes. The programme of mortgage-backed securities purchases has helped push 30-

year mortgage rates down more than 1% since late October – to levels last seen in 2003.



By driving down mortgage rates, the Fed has also helped cut long-term yields as lenders have rushed to buy 30-year bonds to hedge against refinancing risk - yields have fallen from 4.4% at the end of October to just 3.1% now. This has contributed to an easing in corporate borrowing costs for better quality borrowers – AAA bond yields are down 130bp from their peaks, and AA and A yields 100bp.

...will the Eurozone and UK follow?

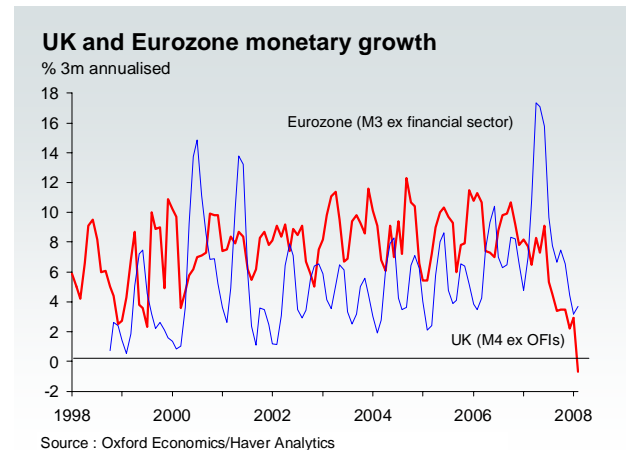
Overall, developments in the US in recent weeks provide some cause for mild optimism. They appear to show that central banks retain the power to absorb the contractionary impact on monetary aggregates of bank credit tightening, and bring down longer-term rates and at least some key borrowing costs.

Does this mean that the Fed's approach is likely to be copied by the other major central banks? The signals so far are mixed. In the Eurozone, there seem to be few signs so far that the ECB is interested in moving in this direction. Open market operations have been ramped up since September, in parallel with moves by other central banks, and some further broadening in this area remains likely. But President Trichet recently stated that the ECB was not considering buying government debt, and the overall stance of the ECB remains relatively conservative.

In the UK, the likelihood of a move toward QE appears greater, based on recent Bank of England commentary. The available monetary data also suggests a stronger case for QE in the UK than in the Eurozone. M3 growth in the Eurozone has

moderated significantly in recent months, but remains in positive territory even after stripping out the volatile financial sector.

But in the UK, the latest monetary data are worrying – excluding the financial sector (OFIs), broad money has begun to shrink, with a particularly sharp fall in corporate deposits. In the past, this kind of liquidity squeeze in the corporate sector has preceded a sharp drop in investment.



Moving to QE would nevertheless be a big step as such a policy carries significant risks. A key concern is the possible impact on inflation.

In principle, QE should not be inflationary in the current environment. As noted earlier, large output gaps are developing in the major economies as recession bites, and the extra base money created should largely go towards offsetting the contractionary impact on broad money aggregates of bank credit tightening.

The experience of Japan in the 1990s also suggests that inflation risks from QE are small, but it is not clear how good a guide this is to the likely course of events over the next few years. QE is being undertaken much earlier in the US than it was in Japan, where long bond yields had already dropped to around 1.5% when it began. The Fed has already achieved much more in terms of forcing longer-term rates down than the BoJ ever did, and this should have a greater stimulatory impact on the economy.

There is also a major risk of policy errors. At present, there is even greater uncertainty than usual as to how broad money aggregates will respond to increases in base money, and thus some risk that central banks could provide an excessive quantity of base money which would leak into asset prices, the

exchange rate or inflation. Indeed, there is a risk that even announcing a QE programme could lead to countries with less credible currencies facing a rapid flight of foreign capital, sharp exchange rate depreciation and rising debt yields.

The risks from QE are particularly great as the economy begins to emerge from recession, at which point the demand for money could shift abruptly, creating a large 'monetary overhang'. As a result, central banks will have to monitor the impact of QE very carefully and be prepared to rapidly mop up excess base money if necessary. The problem with this is that the best indicator that QE needs to be reined in is growth in broad money – which is itself subject to distortions and problems of interpretation. Waiting for the effects to show up in asset prices or real activity might be leaving things too late.

Conclusion – where next for policy?

The shift to QE, while a logical step to combat the risk of deflation, does therefore carry with it some risks of reigniting inflation – especially in the longer term.

But with policymakers increasingly prepared to think outside the box to come up with a strategy to fight the recession, even more non-standard measures than those being employed in the US may yet be tried.

One such approach would be to recognise the dysfunctionality of the banking sector and try to bypass it. To some extent, the Fed has already gone down this road by buying commercial paper but central banks could go further – for example by buying equities as the Bank of Japan did in the 1990s/early 2000s.

Central banks could also try to get round the problem of fiscal expansion pushing up bond yields by financing the government budget deficit directly, via purchases of government debt. This would amount to the monetary financing of the deficit.

Both these approaches would have the drawback of creating a mountain of central bank held assets which would be subject to large potential capital losses. In addition, monetary financing of the budget deficit would be fraught with inflation risks and is likely to be very much a last resort.

Increasingly, however, the major economies are shifting toward policy approaches last seen during the 'lost decade' in Japan, as the spectre of a protracted recession and worldwide debt deflation looms.