

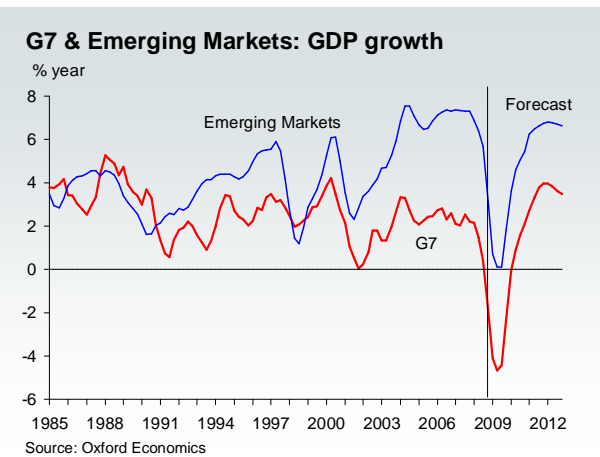


Executive Summary

- Steep drops in output have been recorded across the industrialised world and much of the emerging market world in recent months. Such has been the scale of these declines that there is now little doubt that the global economy is set for its worst year since the end of WWII, with world GDP forecast to fall almost 1½% (and more than 2% at 2000US\$).
- Significant uncertainties nevertheless remain about the economic outlook, in particular about how deep and protracted the recession will prove to be and how rapid an eventual recovery can be expected.
- A key factor generating uncertainty is that the current recession has been sparked by and accompanied by a major financial crisis. Recessions of this sort are often more severe than 'standard' recessions, featuring deeper and more sustained drops in asset prices, and a weaker impact from policy interventions due to malfunctioning banking systems.
- Equity and house prices have continued to drop in the early part of 2009, and there looks to be a significant risk that this weakness will drag on for some time – the average duration of stock price declines in previous financial crises is more than three years and for house prices around six years.
- The financial sector also remains in a highly dysfunctional state. Although the credit tightening process is showing some signs of coming to an end, stress levels remain extremely elevated and risk appetite is low with banks stuck in 'balance sheet repair mode'. This process is unlikely to be complete for some time.
- Retrenchment has also become a priority for the corporate and household sectors. In the face of a plunge in final demand, firms have slashed investment and begun destocking. Worryingly, the destocking process could continue for several quarters as the ratio of inventory to sales remains high.
- US households were net repayers of debt in the final quarter of 2008, and it seems unlikely that the appetite to take on more debt will recover quickly there or elsewhere in the face of steep increases in unemployment and large falls in household wealth.
- Taylor rule analysis suggests that the 'appropriate' short-term interest rate for the major economies has now turned negative, supporting the big shift to quantitative easing now under way. Eventually, this and other stimuli in the pipeline should produce a strong recovery. But the outlook for 2010 has weakened significantly in recent weeks and the risks remain skewed toward a more deflationary outcome than that envisaged by our baseline forecast.

The world enters a deep recession...

Steep drops in output have been recorded across the industrialised world and in much of the emerging market world in recent months. Such has been the scale of these declines that there is now little doubt that the global economy is set for its worst year since the end of WWII. Our baseline forecast is for GDP to decline almost 1½% (and more than 2% at 2000US\$), with G7 GDP falling almost 4% while emerging market GDP grows just 0.7%, dragged down by the weakness of the major economies.



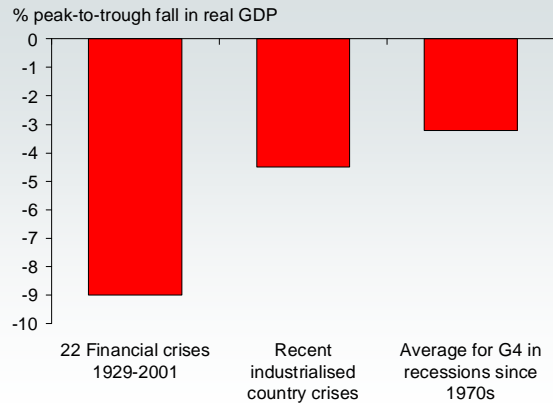
Significant uncertainties nevertheless remain about the economic outlook, in particular about how deep and how protracted the recession will prove to be, and how rapid an eventual recovery can be expected.

A key factor generating uncertainty is that the current recession has been sparked by, and accompanied by, a major financial crisis. Recessions of this sort are often more severe than 'standard' recessions, featuring deeper and more sustained drops in asset prices, and a weaker impact from policy interventions due to malfunctioning banking systems.

One recent study¹ of a sample of past financial crises suggests that real GDP drops on average by 9% from peak-to-trough. This compares to an average drop in recessions since the early 1970s in the US, Eurozone, UK and Japan of 3.2%. The 9% figure is heavily skewed by the inclusion of emerging market countries and the US experience from 1929-1933. But even if we exclude these elements and focus only on recent crises in industrialised

countries, the average drop in GDP is 4.5%, which is equivalent to the worst post-war experiences in major industrialised countries.

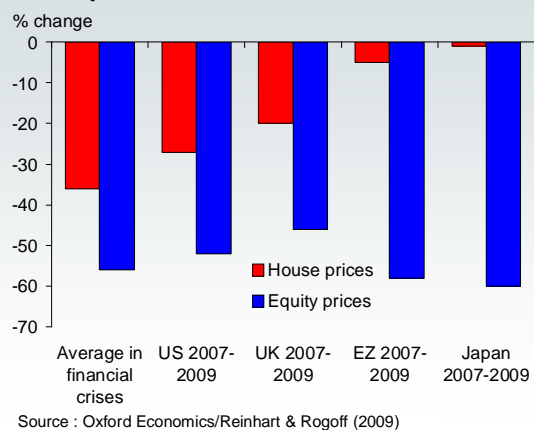
Financial crisis and 'standard' recessions



...as asset prices remain under pressure

Key asset prices have continued to decline in the early part of 2009. Major stock price indices have fallen some 20%, to stand 50-60% below their 2007 peaks, while US house prices are now 27% below peak and UK house prices some 20% below. The scale of the drop in asset prices is beginning to resemble that seen in earlier financial crises, where the average fall in equity prices was around 55% and in real house prices around 35%.

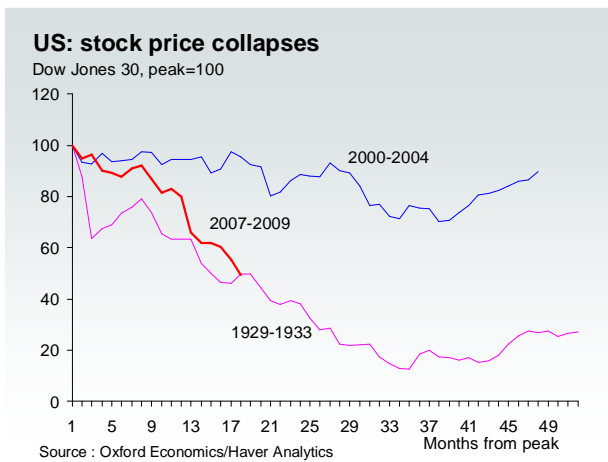
Asset prices - financial crises and 2007-9



Indeed, a rather worrying comparison can be made with the path of stock markets since 2007 and that seen during the 1929-1933 period. Twenty months into the current crisis, the US Dow Jones is down by a similar amount to the drop seen twenty months after the bursting of the 1929 stock market bubble – and is far weaker than during the early 2000s recession. But the Dow Jones then went on to lose a

¹ 'The Aftermath of Financial Crises' Reinhart & Rogoff (2009)

further 30% from its peak value before finally troughing in early 1933.



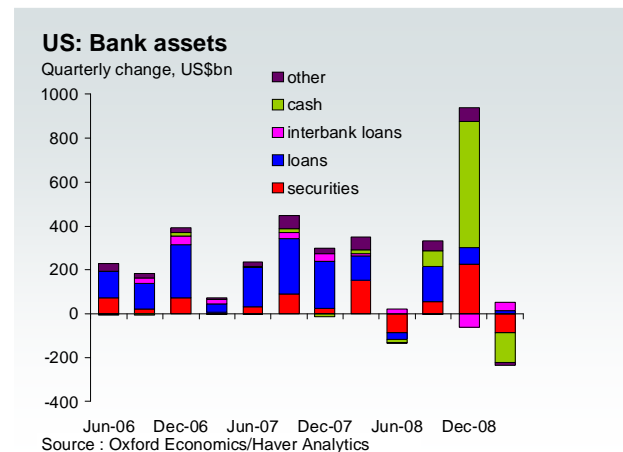
A rerun of stock market developments in 1929-1933 looks very much a worst-case scenario. Stocks in 1929 were heavily overvalued on all standard measures, while in 2007 this was not the case, and a repeat of the disastrous monetary policy errors of the period is also unlikely. But there is a risk that equity market weakness could drag on for some time yet – the average duration of stock price declines in past financial crises is 3.5 years, more than double the average for normal equity bear markets.

On the house price front, the risk of further declines looks even greater. Although US and UK prices are well off their peaks, valuations at the peak were clearly excessive, unlike in the case of stocks. The necessary correction could take some time in this illiquid market, where the average duration of house price declines in previous cycles is around six years, compared to the two years of falls seen so far - in the US, unsold inventories of homes remain very high. Prices could yet fall somewhat further in the US and the UK, and the adjustment is in its early stages in some countries such as the core Eurozone states.

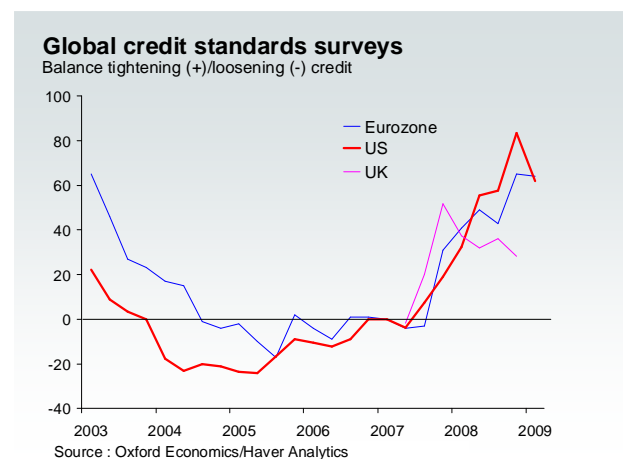
Financial sector stuck in repair mode...

Weakness in asset prices therefore appears likely to weigh on the global economy for some time, and another factor set to hinder a recovery is the dysfunctional state of the banking system. Although banks have received large capital injections and abundant liquidity support over the last year, they remain stuck firmly in 'balance sheet repair mode', with a low risk appetite.

This can be seen clearly from the recent evolution of US bank balance sheets. In the final quarter of 2008, assets rose sharply, but 85% of the increase was in safe assets – cash and government debt – with only a small rise in lending to the private sector. In 2009Q1 so far, the situation is little better. While there has been a small shift from cash to interbank loans – perhaps suggesting a mild improvement in counterparty risk – total bank assets have shrunk with lending to the private sector broadly flat.



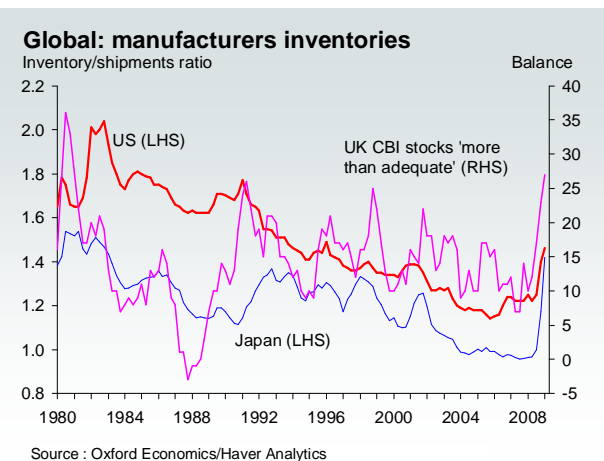
Financial stress levels also remain very elevated, with the decline seen from the peaks of October 2008 to early February arrested over recent weeks. Recent central bank surveys contain the first signs that the process of credit tightening may be coming to an end, especially in the US, but at best this represents stabilisation at a high level, and studies of past financial crises again suggest a gloomy prognosis – credit supply typically does not recover for 2-3 years after a crisis hits.



...and retrenchment elsewhere, too

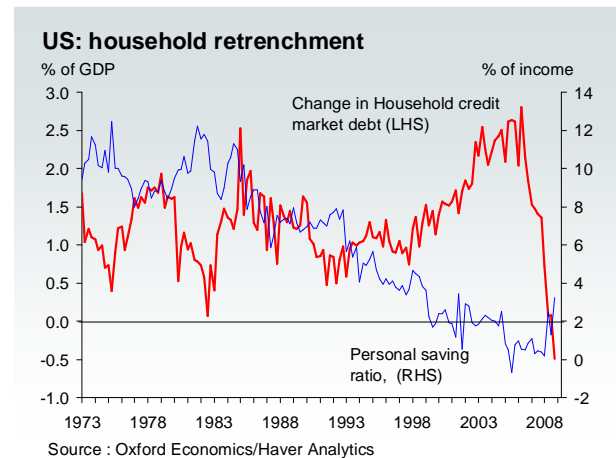
Retrenchment has also become a priority for the corporate and household sectors. In the face of a plunge in final demand, firms have slashed investment and begun destocking. Fixed investment dropped more than 5% in the final quarter of 2008 in the US, with 2-3% falls in the UK, Eurozone and Japan. The signs are that cutbacks continued in the early months of 2009 – US core durable goods orders fell a massive 7% in January.

Some stabilisation after very steep falls is hinted at by Japanese machine tools data, but historical episodes suggest fixed investment could easily drop for 8-9 quarters in the major industrialised countries, compared to the 2-4 quarters of decline seen so far. The very weak current readings on key business confidence indicators also point in this direction. Moreover, it seems likely that even when final demand stabilises firms will not quickly move to crank up capital spending – spare capacity will be substantial and firms will want to be sure any recovery is firmly grounded before considering expansion.



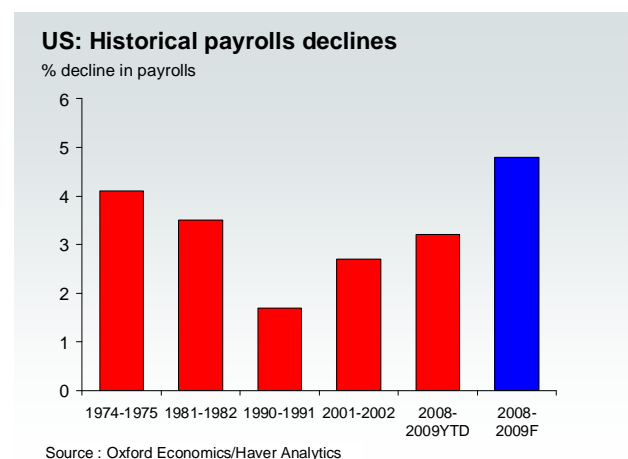
Retrenchment via destocking could also continue for some time. Although manufacturers and wholesalers appear to have cut inventories significantly over recent months, the evidence suggests stocks remain at uncomfortably high levels. In the US, the inventory/shipments ratio has risen to the highest level since 1994, and the rise in Japan has been even more extreme. In the UK, where destocking cut 1.3% from 2008Q4 GDP, the proportion of manufacturers reporting stocks 'more than adequate' is at the highest level since the early 1980s. Unless final demand revives very rapidly,

these stocks will take some time to work off, weighing on output well into 2009.



Meanwhile, the household sector has also begun to cut back significantly. This is most strikingly illustrated by the US flow of funds data for the final quarter of 2008, which showed households repaying a net US\$70 billion of debt – a record repayment and a massive turnaround from quarterly rises of US\$200 billion or so a year earlier.

There is great uncertainty as to how far this process will extend. The personal savings ratio in the US has already picked up to around 5% from zero a year ago, but in some earlier US recessions this ratio has risen above 10%.



The massive fall in household wealth seen over the last two years and the limited prospects for a sharp rise in asset prices suggest that relatively high savings ratios could persist for some time, dampening consumer spending. We estimate this fall at over 90% of GDP for the US and the UK, and around 60% for the Eurozone.

Another key factor is the rise in unemployment. In the US, the unemployment rate is up 4% points from

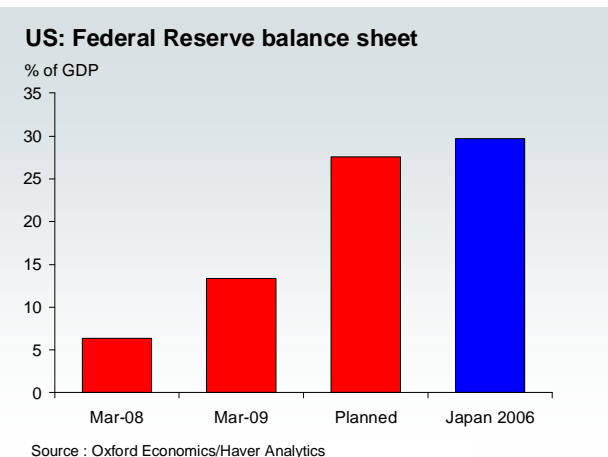
its lows and payrolls have fallen more than 4 million or 3% – the biggest drop since the 1981-1982 recession. And there are few indications that the rise is anywhere near coming to an end - we forecast payrolls will shrink by a total 5%, somewhat worse than in either the early 1980s or the mid-1970s.

Outside the US, the scope for rising unemployment is even greater. Unemployment is starting to take off in the UK, but the rises so far in the Eurozone and Japan have been relatively modest. The implication is clear – rising job losses are likely to discourage consumer spending and encourage savings for a considerable time to come.

Can QE save the day?

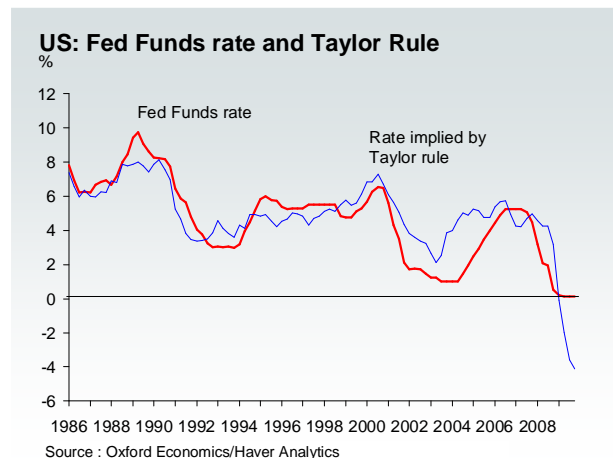
The analysis above suggests that there are good reasons for thinking that the global economy is some way from staging any kind of convincing recovery. How much can policy action do to change this picture?

The big shift in recent months on the policy front has been the adoption of 'quantitative easing' (QE). The UK announced the beginning of QE in early March, while the US Fed announced a major ramping up of its QE efforts later in the same month. The Fed now plans to spend US\$300 billion on buying treasuries and more than US\$700 billion extra on buying mortgage-backed securities, on top of around US\$1 trillion to support credit markets.

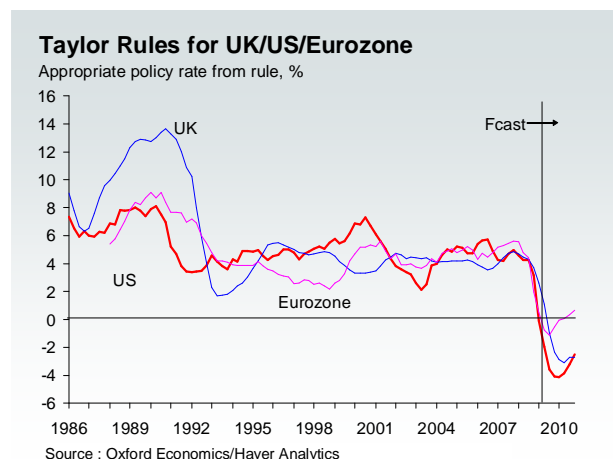


Altogether, this means the Fed is planning to expand its balance sheet to almost US\$4 trillion, or around 30% of GDP. This is a similar size to that seen in Japan at the peak of the QE effort there. Importantly, however, the Fed is moving somewhat faster than the BoJ did – prior the Lehman Brothers collapse, the Fed's balance sheet was only around 6% of US

GDP so that the Fed will have more than quadrupled its balance sheet in only 4-6 quarters when its latest purchases are complete. By contrast, the BoJ took almost five years to increase its balance sheet from 11% of GDP to 28% of GDP in 1997-2002.



The necessity for such aggressive moves by the Fed can be seen from analysis using the so-called 'Taylor Rule' which estimates the appropriate level of central bank rates based on a formula including the 'neutral' real interest rate and divergences of inflation and output from their targeted and trend levels respectively.



This rule has been a good predictor of actual movements in the US Fed Funds rate over the last twenty years or so and currently suggests that the Fed Funds rate needs to be strongly negative, at around -5%. Clearly, achieving the equivalent of cutting the Fed Funds rate by a further five percentage points requires large-scale monetary action. The rule also suggests negative interest rates are necessary for the UK and the Eurozone, although the situation is less clear-cut for the latter.

In principle, QE offers an elegant solution to the problems of the global economy, enabling the authorities to circumvent the banking sector and directly increase the money supply. This should support asset prices and encourage greater nominal spending. Importantly, theory suggests it is not necessary that credit growth must take off for this to work, despite the emphasis still being put on this by some policymakers. Rather, the adjustment of excess money balances is the key transmission mechanism. The aggressive nature of the recent moves may also offer some badly needed support for business confidence – provided the credibility of policymakers remains at a reasonable level.

We should be wary, however, of expecting too much from QE. It could help put a floor under stock prices, but it is unlikely to reverse the necessary adjustment in the real price of housing, although it could make that adjustment less painful.

Similarly, the adjustments of household and corporate balance sheets may be aided by QE if it holds up the general price level and stops the real value of debt from rising – but are unlikely to be halted. QE which lowers key borrowing costs through asset purchases may also aid the adjustment process by reducing the interest burden, and QE targeted at certain sectors, e.g. the commercial paper market, may help bridge some gaps that have appeared in financial markets.

QE is perhaps best seen as an anti-deflation policy, rather than a policy for rapid recovery in the real economy. This point was supported by recent remarks by the Bank of England, which argued that it intended to use QE to prevent inflation dropping substantially below its 2% target. Central banks, especially the independent central banks of the major industrialised countries, are likely to be wary of aiming at much more than this given the inflationary risks of an excessive monetary expansion.

Conclusion

The global economy has plunged dramatically into a deep recession over the last few months. But this does not necessarily suggest that the recovery will be swift or pronounced. Indeed, there are a variety of reasons for believing that recovery could be delayed, and at least initially, slow.

Recessions accompanied by financial crises are normally deeper than 'standard' recessions, and feature bigger falls in asset prices. Asset prices have already fallen steeply, but the adjustment process looks to have further to run, especially in the case of house prices, meaning significant continued negative wealth effects on consumer spending.

The financial sector also remains in a dysfunctional condition, with banks concentrating on repairing their damaged balance sheets. And the overwhelming priority given to retrenchment has also spread to the corporate and household sectors. Cuts to investment, reduction of excessive stocks and rising levels of household saving are likely to endure for several quarters.

Quantitative easing has been ramped up dramatically by the US and has spread to the UK, and Taylor Rule analysis confirms the need for this. QE can improve the situation without necessarily 'kickstarting' bank lending to the private sector, but there is a danger too much will be expected from the policy. While it can ease the balance sheet adjustments of firms and businesses and perhaps also the correction in property prices, it is unlikely to halt these developments entirely or lead to a rapid revival in real activity.

As these adjustments play out over the rest of 2009 and much of 2010, we expect growth to remain weak. The outlook for 2010 has dimmed significantly in recent weeks. We expect the recovery to gather pace significantly in 2011, however as balance sheet adjustments draw to a close and the impact of very low interest rates, abundant liquidity and fiscal stimulus come through. Risks remained skewed toward a more 'deflationary' outcome than in our baseline forecast, however, given the uncertainty as to how far the deleveraging process at work in banks, households, and businesses will extend.