

Schroders

Economic and Strategy Viewpoint

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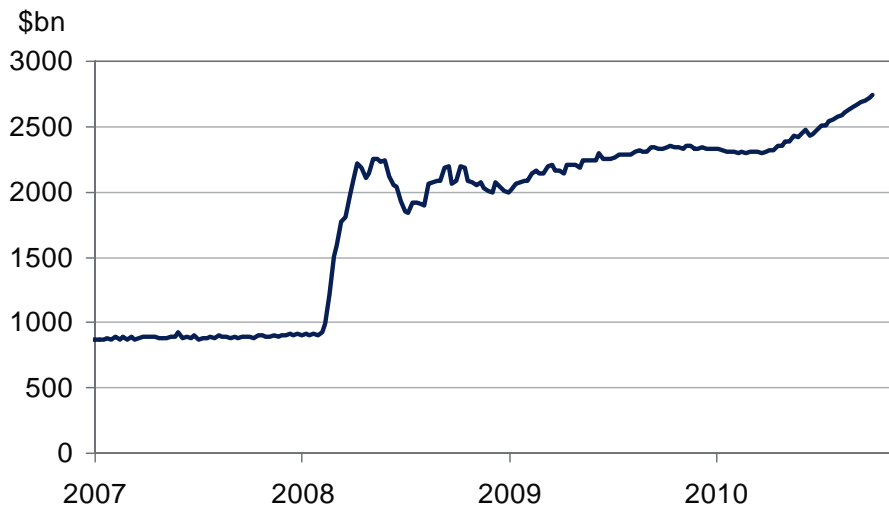
Global: Macro and market impact of the end of QE

- The US Federal Reserve is planning to bring its programme of Large Scale Asset Purchases or Quantitative Easing (QE) to a close by the end of June having increased the size of its balance sheet to some \$2.8 trillion (chart). Investors are divided on the impact this will have on the economy and markets, with some seeing a return to recession and a bear market in risk assets.
- Our view is that the macro impact of the second round of QE has been limited as the main effect has been to increase the level of excess reserves in the banking system. The credit multiplier has fallen as banks have not lent their increased reserves on to the private sector, thus limiting the effect on activity. From this perspective the end of QE should not derail the recovery.
- However, whilst it is difficult to isolate the effect, QE has probably had an impact on Treasury yields and the US dollar, depressing both and encouraging a portfolio shift into emerging economies and commodities. An end to QE could bring a reversal of these flows and create volatility in risk assets alongside rising Treasury yields and a stronger dollar. Looking further out the medium term effects will not be known until QE has been fully unwound and the Fed's balance sheet has returned to normal. Meanwhile, fears of its potential inflationary impact are likely to persist.

UK: Money illusions and delusions

- Another quarter comes and goes, and another warning from the Bank of England that the UK will have to withstand another bout of "temporary inflation." Keeping interest rates at record lows is thought by some as the only answer to repairing both the household and government's balance sheet. Meanwhile, the cost of doing so is higher inflation, a price worth paying according to some members of the monetary policy committee.
- The money illusion could be why retail sales have remained robust, though given the amount of deleveraging that has already occurred, households may now feel able to reduce their savings rate and increase spending.
- The Bank of England is playing a dangerous game by keeping interest rates at record lows. Its frequent underestimation of inflation combined with its bad-luck stories raises serious questions over its ability, and perhaps its desire to meet the inflation target. More extreme cynics doubt the independence of the Bank altogether. This could lead to inflation expectations becoming de-anchored, eventually resulting in a sustained period of elevated inflation in the UK, or even stagflation.

Chart: Total Federal Reserve assets



Source: Federal Reserve, Schroders. Updated 25th May 2011.

Global

QE2 ends in June

Sharp difference of opinion on its effect

Main impact has been an increase in bank reserves, not lending

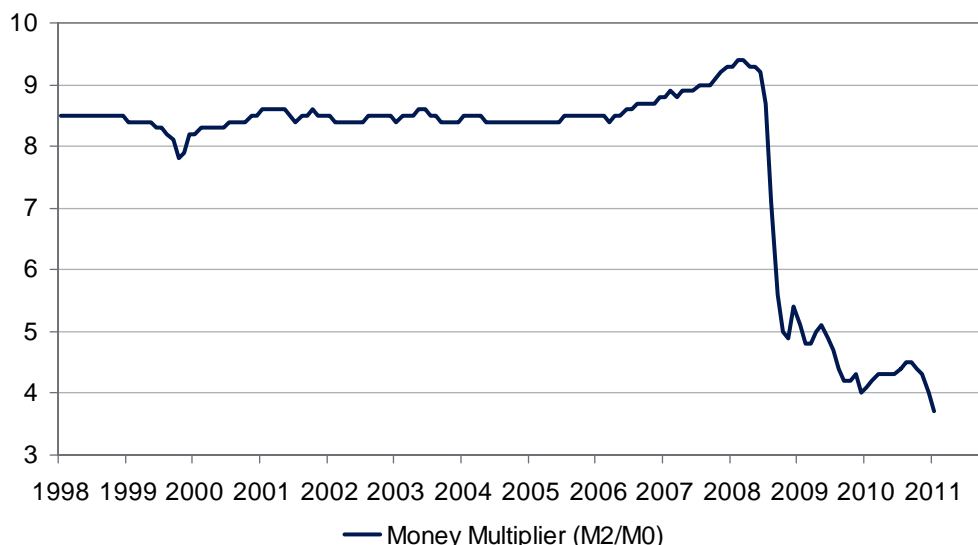
Macro and market impact of the end of QE

At the end of June the Federal Reserve will bring a close to its controversial programme of printing money and buying US Treasury bonds, more formally known as Large Scale Asset Purchases or Quantitative Easing. The second round of Quantitative easing (QE2) will have added \$600bn to the Fed's balance sheet. It followed on from the first round which started in late 2008 and means that the US central bank now holds some \$2.8 trillion of assets in US Treasury bonds and Mortgage Backed Securities (chart on front page).

Investors are divided on how the end of purchases will affect the economy and markets. There is a view that QE has had little effect on either and that the end of the policy will be a non-event. Others see the Fed's action as critical to the revival in the economy and financial markets and hence the end of the programme as very bearish for both.

Certainly the direct effects of QE on the economy seem limited as the money created by the Fed's actions has become trapped in the banking system. Bank's reserve holdings have risen sharply, but they have not been lent out into the real economy. The private sector continues to de-lever, hence the impact on money growth and national income has been limited. The velocity of circulation and money multiplier have fallen sharply (chart 1). This could change in future, an issue we will return to below.

Chart 1: US Money multiplier



Source: Thompson Datastream, Schroders. Updated 25 May 2011.

However, QE does seem to have had more effect through other channels. For example, the first round was instrumental in unblocking credit markets which have seen a substantial increase in issuance. Companies have been able to bypass the banking system and go direct to investors who remain hungry for yield.

Credit markets have stepped into the breach, but cannot make up for the lack of lending

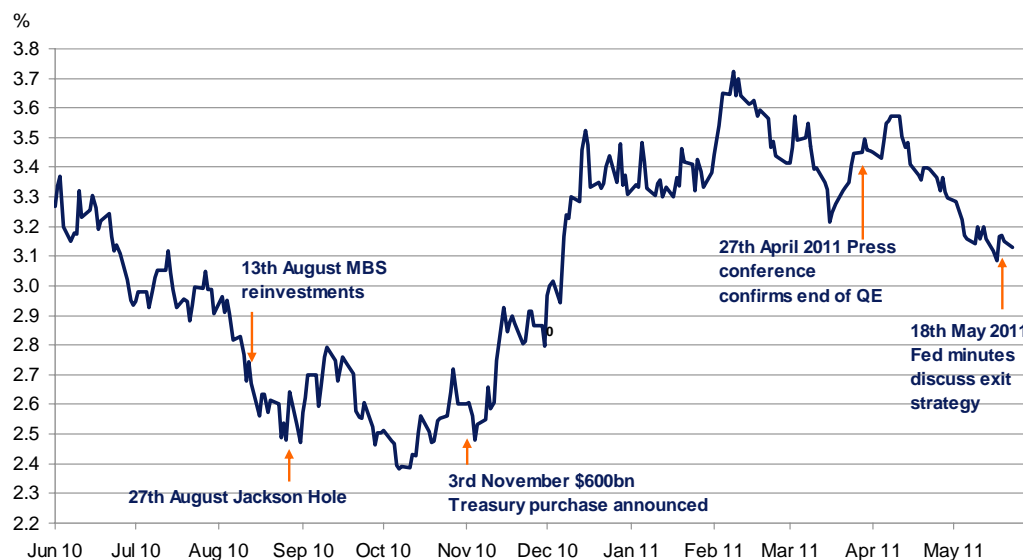
When combined with the low level of short rates, US companies have achieved some very attractive terms. For example, Walmart gave investors just 0.75% on its 3 year paper issued at the end of last year. Others have matched this. European companies have also achieved record levels of issuance.

From this perspective the collapse in the money multiplier would not seem to matter as companies can still raise capital. However, the overall level of capital provided to the economy remains low even with the credit markets picking up some of the slack. The main reason being that households and small and medium sized companies are unable to take advantage of this channel and still rely on banks.

Treasury yields have risen since QE2 actually began

Where the debate over the effect of QE intensifies is in its effect on markets. In theory large purchases of bonds by the Fed should have depressed yields. Empirical estimates suggest that the announced purchase of \$600bn worth of longer term Treasury securities would be expected to translate into a 50 basis point reduction in the 10 year Treasury yield¹. Looking at the behaviour of Treasury bonds though, it is difficult to discern a direct effect. US Treasury 10 year yields are above the level when QE2 was announced last November (see chart 2).

Chart 2: US 10-year government bond yield



Source: Thompson Datastream, Schroders. Updated 23rd May 2011

Of course, it is not possible to know where yields would be in the absence of Fed purchases as not all things were held equal. For example, there was some evidence the US economy was improving before QE2 started and that markets discounted the programme in advance.

QE seems to have weakened the US Dollar

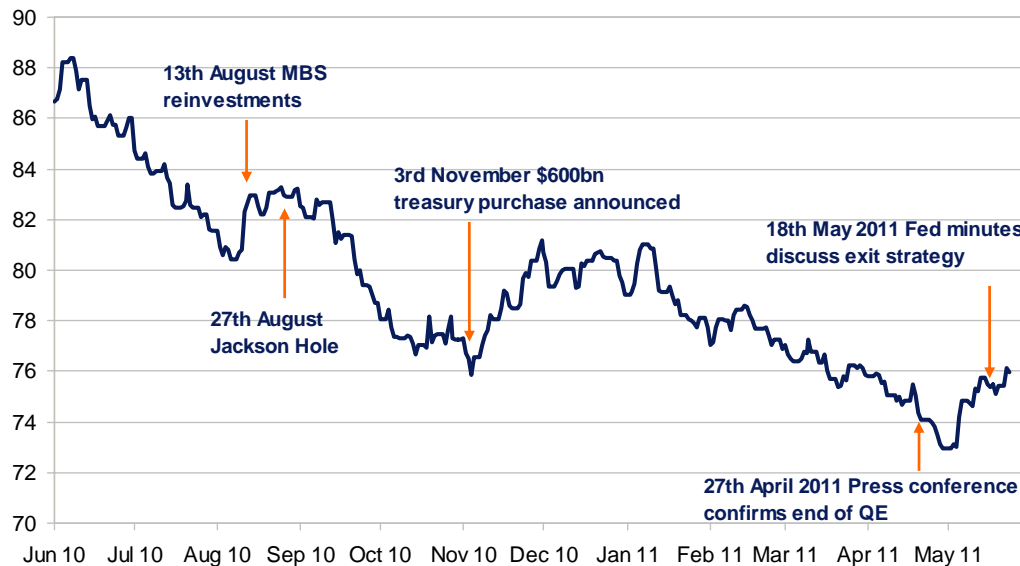
Where there seems to have been a clearer effect is in the currency markets with the US dollar generally weakening during the period of QE2 (see chart 3 on next page). Again there are a range of factors driving this market, but there is a general perception outside the US that the main aim of QE was to drive the dollar lower via lower yields forcing investors overseas.

¹ See "How much will the second round of large scale asset purchases affect inflation and unemployment?" New York Federal reserve May 4th, 2011

Which in turn has boosted commodity prices

Such a view is held strongly in Asia where the action by the Fed is often seen as part of a wider plan to put pressure on the authorities to revalue their exchange rates. Many investors, not just in Asia, see gold as the best hedge against the perception that the Fed is trying to undermine its own currency. The gold price is testimony to this, as are the prices of a range of commodities which have risen significantly.

Chart 3 US dollar trade weighted index



Source: Thompson Datastream, Schroders. Updated 24th May 2011.

An unwind of QE points to a stronger dollar and weaker commodity prices

The Fed denies any intent to weaken the dollar, but it is these portfolio effects which are causing concern to investors. There has been an increase in foreign exchange reserves at emerging market central banks during QE, suggesting that capital inflows have risen. This in turn is seen as boosting money growth in the emerging economies as those with fixed exchange rates struggle to contain capital inflows. Such growth then fuels commodity demand, pushing up prices. On this basis the end of QE could result in a reversal of the recent capital flow, resulting in a stronger US dollar and weaker commodity prices. Market movements could become volatile should the end of QE also trigger a reversal of carry trades funded in US dollars.

Conclusions

To summarise, the ending of QE2 is unlikely to have a major impact on the US economy as its main effect has been to boost already excessive bank reserves. All things being equal, it should result in higher bond yields and to the extent that it causes a reversal of capital flows and strengthening in the US dollar, then commodity prices could be vulnerable to another fall.

Markets are more vulnerable than the economy to the ending of QE

Risk appetite may also suffer if carry trades unwind, resulting in some volatility in equity and credit markets. These financial moves will feed back onto the economy so investors may question whether growth is robust enough to prevent a recession or double dip. This suggests a period of greater risk aversion and rising bond yields alongside a stronger dollar.

There is one remaining issue. Whilst we have talked of the end of QE, the policy has not really come to a close until the Fed has unwound the increase in its balance sheet. Although the Fed will have stopped buying bonds, the money created by QE will still be in the system, it will have just stopped increasing. There are fears that this represents latent inflationary pressure as when the banks begin to lend their excess reserves, money growth and inflation will accelerate.

Inflation remains a concern until the Fed's balance sheet returns to normal

The Fed respond to this by arguing that the policy will be unwound through sales of assets and that in the interim pressure from bank lending on money supply can be eased by paying interest on reserves.² The problem with this argument is that it requires the Fed to get their timing right and make the right judgements on policy, something that investors increasingly doubt given the experience of the last few years. Hence the fear that QE ultimately leads to inflation is real.

² Following the recent FOMC minutes, we believe the Fed will start selling assets after raising the fed funds rate in early 2012. Prior to that it will stop reinvesting coupon payments and stabilise the size of its balance sheet.

UK

UK: Money illusions and delusions

There is a difference between actually meeting an inflation target and just promising to do so in the medium term. This seems to have escaped the Bank of England's (BoE) attention of late despite inflation in 27 of the last 37 months being more than 1% above the Bank's 2% inflation target.

Now that the BoE is forecasting inflation to rise above 5%, doubts are growing over the central bank's ability, along with its willingness, to meet its 2% target.

Headwinds remain

The UK government is trying to tighten fiscal policy faster than in any period since the Second World War at the same time as the household sector continues to deleverage. These are the headwinds the UK economy faces, and why we expect growth to be lower than 'normal' for many years to come.

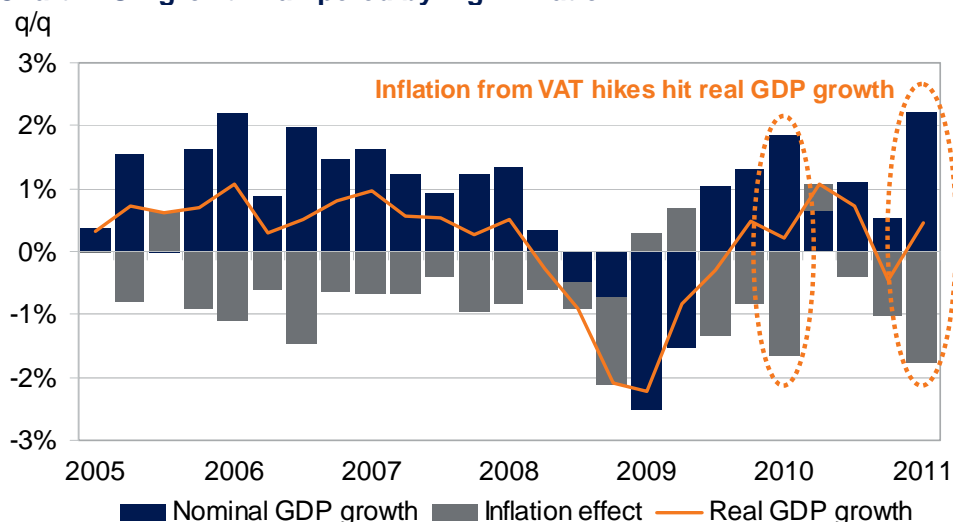
This situation has placed pressure on the Bank of England to keep interest rates as low as possible while the government can repair its own balance sheet. If interest rates remain low, then the household sector will be able to reduce its debt burden quicker, while the government will be able to pay lower yields on its fiscal deficit (also helping to reduce the deficit faster). However, this is not a free lunch. The price of loose monetary policy has been a weaker currency, and higher imported inflation as a result.

More recently, a combination of VAT being raised and higher food and energy price inflation have caused inflation to rise once again. The Office for National Statistics (ONS) showed inflation as measured by the Consumer Price Index (CPI) to have risen to 4.5% in April – its highest rate since October 2008.

There is a feeling of déjà vu at the moment. It's May and the Greek sovereign debt crisis is hurting market confidence, another Icelandic volcano is spewing ash into the sky, and finally, the ONS is reporting weak first quarter growth, caused by a rise in inflation, which has been mainly driven by the increase in VAT.

As chart 4 shows, Nominal GDP grew by 2.2% in the first quarter of 2011 (8.8% annualised) but the impact of higher inflation meant that growth in real terms was just 0.5% - very similar to the data seen for the first quarter of 2010. What is different this year is that the Bank of England is not so optimistic with its inflation outlook.

Chart 4: UK growth hampered by high inflation



Source: Thompson Datastream, Office for National Statistics, Schroders. Updated 26 May 2011.

Low interest rates are helping households and government de-lever quicker...

...though inflation is rising sharply, and hitting growth in real terms.

Expect more “temporary inflation”, and for it to last for longer!

The BoE now expects inflation to hit 5% before the end of the year...

In its May Inflation Report, the Bank of England published a new growth and inflation forecast in its usual manner. However, for the second consecutive month, the Bank downgraded its growth forecast but raised its inflation forecast. The Bank says that the latest change is predominantly driven by higher oil prices, which are expected to feed through to energy and utility bills later this year.

The BoE now warns that CPI inflation could reach 5% by the end of the year (see chart 5). More alarmingly, it no longer expects inflation to return to target in 2012. So much for temporary inflation. The latest admission is damaging the Bank’s credibility, especially as interest rates remain at a record low.

The BoE’s forecast record of inflation has been poor of late. Worryingly, its record has been biased to under estimating inflation on a one year horizon. The forecast error for the first quarter of 2011 was just over 3 percentage points, with the forecast for the second quarter also likely to have an error of similar magnitude (see chart 6).

...and not return back to target until 2013 at the earliest.

Chart 5: BoE Inflation Report inflation forecast¹

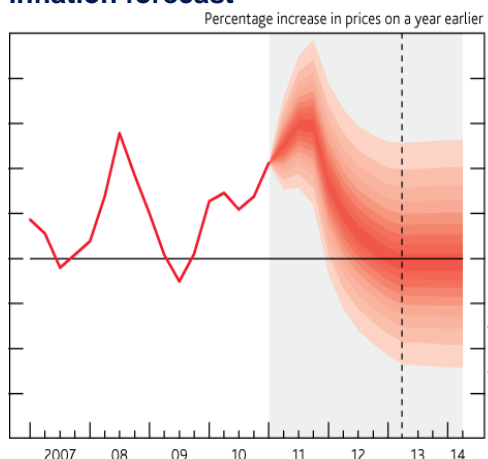
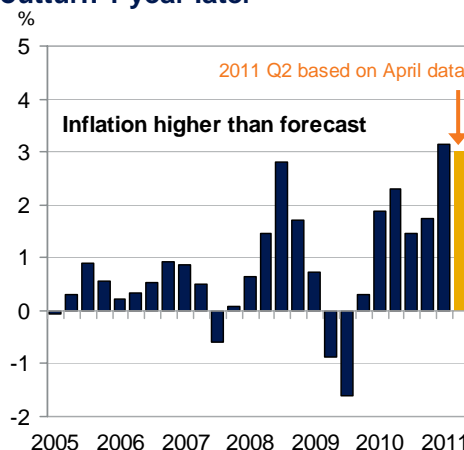


Chart 6: BoE median of forecast vs. outturn 1 year later



Source: Bank of England (May Inflation Report), ONS, Schroders. Updated 26 May 2011.

1. CPI inflation projection based on market interest rates profile & £200bn asset purchases

Doves on the committee argue that the BoE’s mandate allows for higher inflation in the short-run...

Amongst the Monetary Policy Committee (MPC), the debate rages on. Voting to keep interest rates on hold, the Deputy Governor for Monetary Policy at the BoE, Charlie Bean, in our view re-affirmed the Bank’s strategy in a recent speech:³

“...the MPC’s chosen approach has been to accept a temporary period of above-target inflation, rather than seeking to hold inflation as close to the 2% target as possible at all times.

The Committee’s approach has, I believe, been consistent with its mandate from the Chancellor of the Exchequer, which recognises “that the actual inflation rate will on occasions depart from its target as a result of shocks and disturbances” and that “attempts to keep inflation at the inflation target in these circumstances may cause undesirable volatility in output.”

On the hawkish side of the debate, the BoE’s Chief Economist and MPC member Spencer Dale recently voiced his concerns in a newspaper interview:⁴

³ Speech given to the Northern Ireland Chamber of Commerce on 19 May 2011.

⁴ Financial Times published on 22 May 2011.

...but hawks argue that having inflation above target for 7 years is risky.

"I'm not at all confident that the recovery has taken hold and will definitely power away," he said. "However, I'm even more worried about what's going on in terms of inflation. I don't take lightly the impact this could have on some families," he added. "But I think the cost to our economy as a whole – were inflation to persist for longer and our credibility start to be eroded – would be even worse. In our central forecast and May inflation report we don't expect it to come down until the beginning of 2013, so if that's right ... that would mean inflation has been above target for the best part of seven years."

In our view, the debate over whether the BoE should raise interest rates hinges on two key questions:

1. Are the bouts of "temporary" external inflation truly temporary, or has there been a fundamental shift in the global equilibrium.
2. Putting aside external price pressures, is there sufficient spare capacity, and therefore deflationary pressure in the UK economy, to stop elevated inflation expectations push up wage inflation, and therefore contributing to second round inflation effects.

We have attempted to answer the second question on numerous occasions in the past, and continue to hold the view that the Bank of England is over estimating the amount of spare capacity and therefore deflationary pressure in the UK economy.⁵

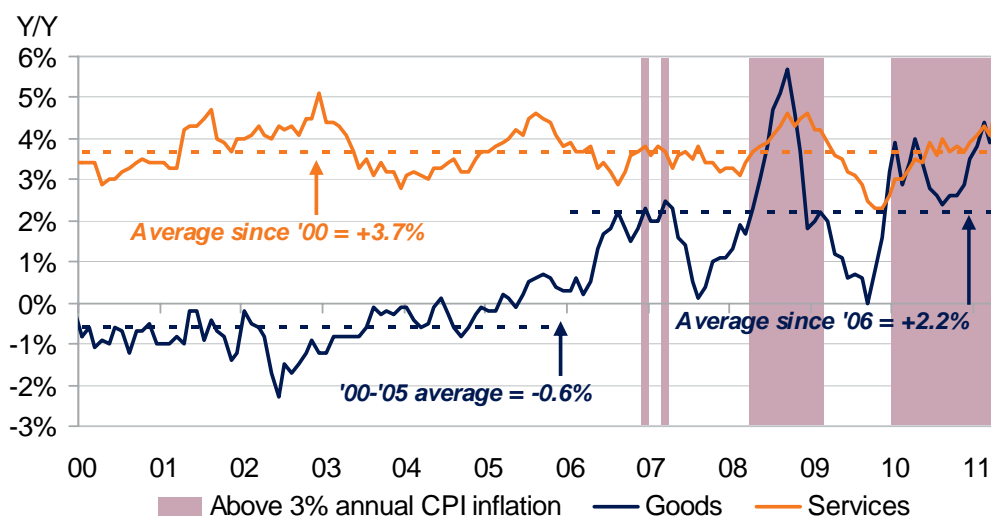
Before the financial crisis, the majority of advanced economies enjoyed deflationary goods price deflation, partly thanks to productivity growth over the past decade, but possibly more importantly the result of increased globalisation, as more producers shift production plants to the Far East. The external deflationary pressure allowed advanced economies, but in particular the UK, to run higher domestic inflation which was mostly seen in non-tradable service industries (helping to raise domestic wage growth).

We believe past external deflationary pressure is unlikely to return...

As chart 7 shows, annual UK goods inflation averaged -0.6% between 2000 and 2005. However since 2006, the average has risen to +2.2%. Meanwhile, service sector inflation has continued to average approximately 3.7% since 2000. In addition to the apparent structural shift in goods inflation, the shaded periods on the chart highlight the way headline CPI inflation breaches 3% almost every time goods inflation rises above 2%.

Chart 7: Goods vs. services inflation

...which means domestic inflation may have to be brought down to accommodate these external pressures



Source: ONS, Thompson Datastream, Schroders. Updated 26 May 2011.

⁵ See the December 2010 Economic and Strategy Viewpoint.

If there has been a structural upward shift in goods inflation, particularly from imported goods, then in theory, UK consumers and producers should eventually substitute imports for domestically produced goods – which in the long-run, will boost economic growth. This may be why Governor of the BoE Mervyn King has placed so much emphasis on the need to rebalance the economy.

While some rebalancing is likely, in reality, the UK is very unlikely to be able to produce low-value added goods in a way that competes with the likes of China and India. And unless emerging economies revert back to exporting deflation, the UK will have to make a decision: Either to live with lower service sector inflation (and therefore lower wage growth) to offset the higher goods inflation, or endure higher overall inflation to maintain the status quo in the service sector.⁶

Money illusion & delusion

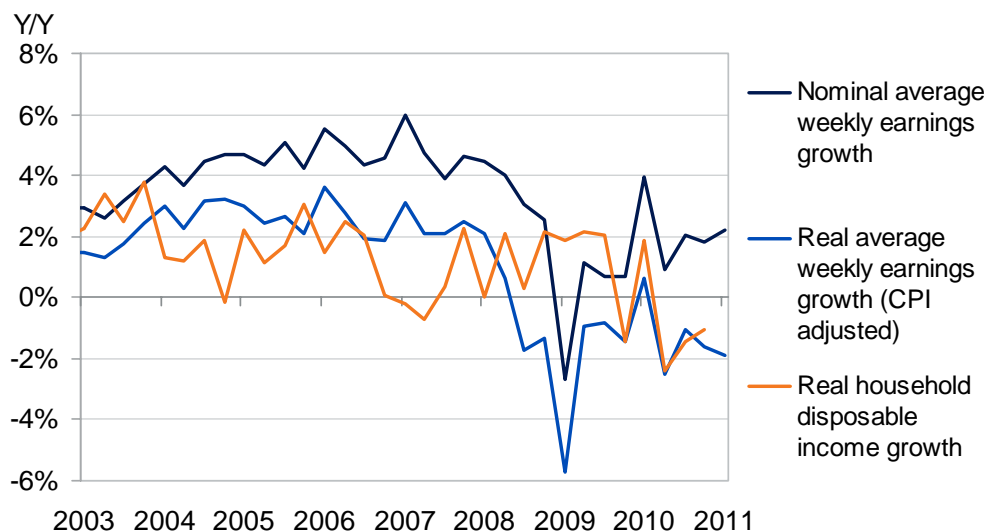
Could higher inflation be used to drive the money illusion?

In theory, a person should be indifferent between having a 2% nominal pay cut during a period of no inflation, and receiving a 2% pay rise but also seeing 4% inflation. However, studies have shown that the average person will prefer the latter to the former. This is known as the ‘money illusion’, a term coined by John Maynard Keynes in the early twentieth century, but developed further as an idea by Irving Fisher.⁷

In the UK, nominal wage growth has remained at 2% per annum for the last year, but when adjusted for inflation using the CPI measure, it has actually fallen by just under 2% over the past year. Indeed, real household disposable income, which adjusts for taxes, mortgage payments as well as inflation, is also contracting at a similar pace (see chart 8).

Chart 8: Money illusion – wage growth not positive in real terms

Wages are growing in nominal terms, but not in real terms...



Source: Thompson Datastream, ONS, Schroders. Updated 26 May 2011.

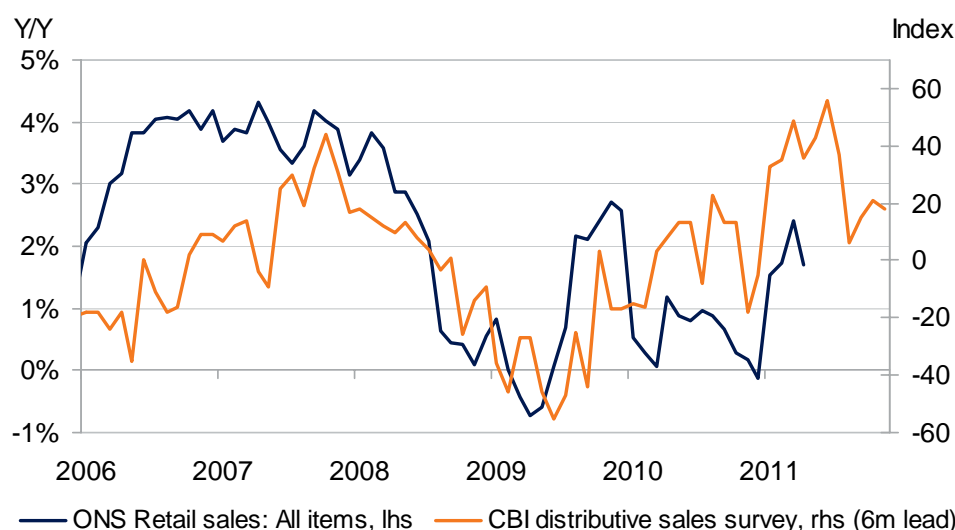
Given the above, it is therefore surprising to see retail sales continuing to grow at a robust pace. The ONS’s measure of growth in retail sales volumes is showing annual growth of just under 2%, while the Confederation of Business & Industry’s survey of distributive trade suggests the official measure of retail sales should strengthen further in coming months (see chart 9 on next page). Could this be the *money illusion* at work?

⁶ Note that the inflation target is set by HM Treasury and not the Bank of England.

⁷ Irving Fisher wrote a book in 1928 called “*The Money Illusion*.”

Chart 9: Money delusion – retail sales still robust

...which may be why retail sales growth remains robust...



Source: ONS, Thompson Datastream. Updated 26 May 2011.

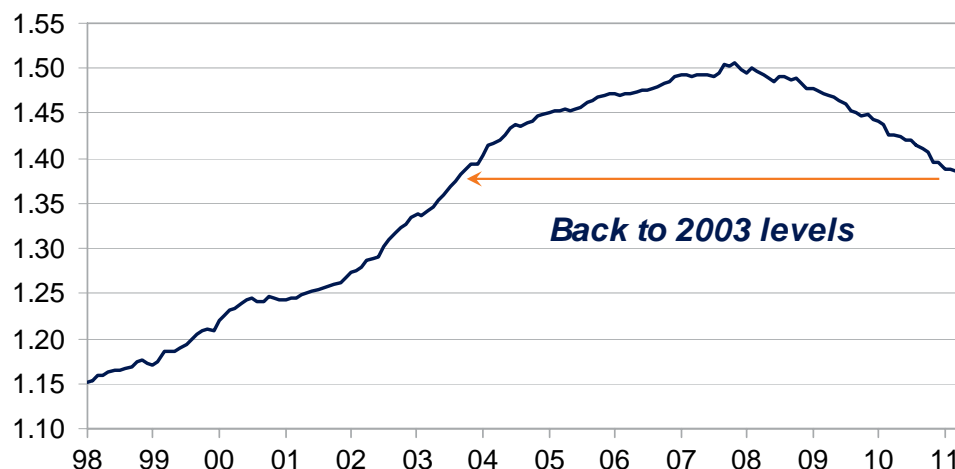
...though the money illusion can quickly turn into money delusion, as households realise that their purchasing power is being eroded

We believe there is an element of the *money illusion* at work, but this cannot be the only explanation for continued growth in retail sales. If it is, then it is likely to quickly turn from money illusion to delusion, as households eventually realise that not only is their spending power being eroded, but also their existing stock of wealth.

In addition to the *money illusion*, we also point to the tremendous amount of deleveraging the household sector has already done. In our view, the size of the household sector's debt burden is not what drives the sector's decision to borrow or deleverage, but instead, it is the affordability of debt repayment. Though deleveraging is continuing, it appears it could be beginning to slow, allowing for some type of recovery in consumption. The household savings ratio in the final quarter of 2010 was 5.4%, which had come down from its recent peak of 7.5% in the second quarter of 2009, but is still elevated relative to the levels seen during the middle of the last decade. To put the size of the deleveraging into context, when comparing total household debt (including mortgages) to total household liquid assets (held in banks), we find that households' loan-to-deposit ratio is now back to mid-2003 levels (see chart 10).

Chart 10: Household deleveraging progress helping to boost consumption

What has been positive is how much the household sector has already de-levered



Source: ONS, Thompson Datastream. Updated 26 May 2011. Definition: Household stock of mortgage borrowing and credit debt divided by the stock of liquid assets held in banks and building societies.

The danger of complacency

The ECB blames tolerance of persistent overshoots of inflation and a poor definition of a nominal inflation target for the cause of the 'Great Inflation' period...

The temptation to continue to blame inflation on temporary factors is a dangerous one. The European Central Bank (ECB) compared and contrasted the US and German experience of the Great Inflation during the 1960's and 1970's.⁸ The US (along with many European countries) experienced prolonged, stubbornly high inflation for many years, where as Germany managed to return inflation more quickly back to more normal levels.

The ECB concludes that contrary to popular beliefs, the Great Inflation was not caused by a series of *"bad-luck explanations... [and] a sequence of adverse supply shocks, the Great Inflation was mainly a result of crucial monetary policy mistakes."*

"The US experience of the second half of the 1960s...clearly shows that a few years of systematically disappointing inflation outcomes, in the absence of a clear definition of the monetary policy objective, can rapidly unanchored inflation expectations."

The ECB goes on to highlight *"...the dangers associated with an excessive reliance...on unobserved and therefore intrinsically poorly measured indicators, such as the output gap"*, after showing evidence that real-time estimates of the output-gap during the period in question over estimates the amount of spare capacity in the economy relative to estimates that are done using mature data.

...which serves as a warning for the BoE. The Bank risks losing public confidence if it continues to keep monetary policy too loose.

Bearing this in mind, there is a risk that if the Bank of England continues to downplay the threat of inflation in the medium term and keep interest rates at record lows, the public may eventually lose faith with the Bank's ability to control inflation, and perhaps even its desire to meet the inflation target. More extreme cynics even question the Bank's independence altogether.

The loss of faith could de-anchor long-term inflation expectations, and combined with our view of less spare capacity in the economy, could eventually lead to second round wage-inflation effects, resulting in a sustained period of elevated inflation in the UK, or even stagflation.

⁸ *"The 'Great Inflation' Lessons for Monetary Policy"*, article published in the ECB's May 2010 Monthly Bulletin.

Updated forecast charts - Consensus Economics

For the EM, EM Asia and Pacific ex Japan, growth and inflation forecasts are GDP weighted and calculated using Consensus Economics forecasts of individual countries.

Chart A: GDP consensus forecasts

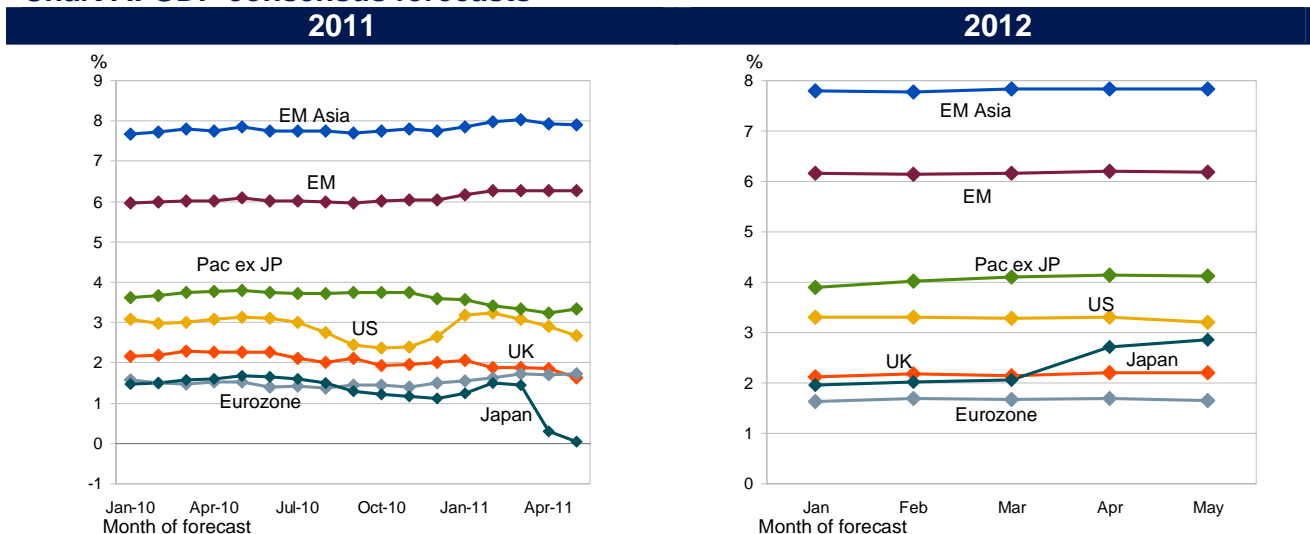
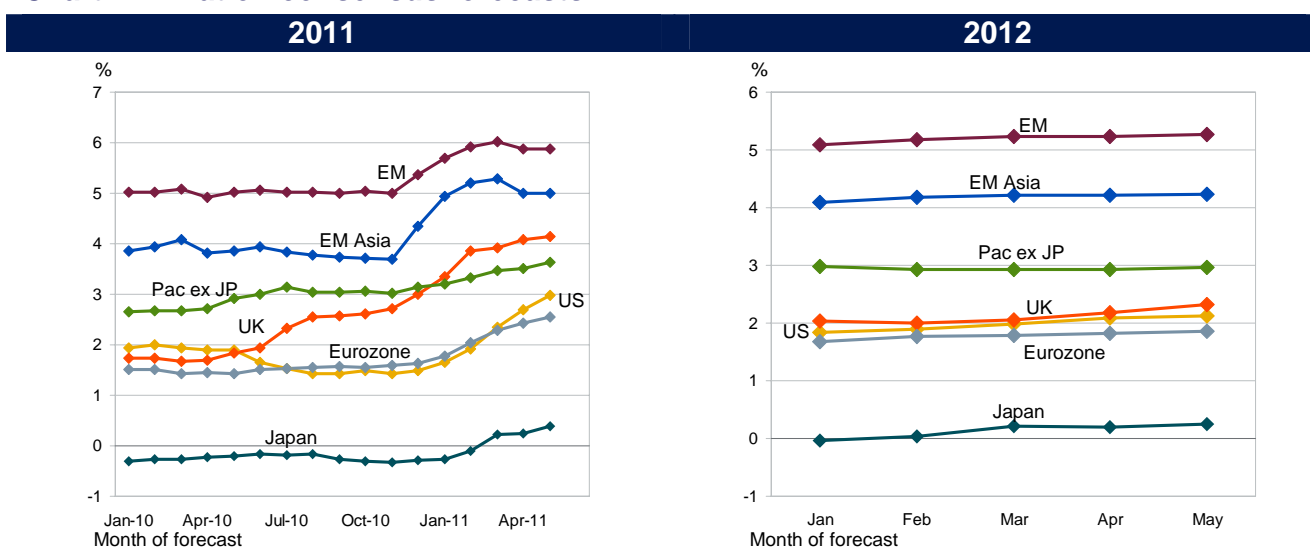


Chart B: Inflation consensus forecasts



Source: Consensus Economics (May 2011), Schroders

Pacific ex. Japan: Australia, Hong Kong, New Zealand, Singapore

Emerging Asia: China, India, Indonesia, Malaysia, Philippines, South Korea, Taiwan, Thailand

Emerging markets: China, India, Indonesia, Malaysia, Philippines, South Korea, Taiwan, Thailand, Argentina, Brazil, Colombia, Chile, Mexico, Peru, Venezuela, South Africa, Czech Republic, Hungary, Poland, Romania, Russia, Turkey, Ukraine, Bulgaria, Croatia, Estonia, Latvia, Lithuania

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