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The rebirth of deflation

- The last year or so has seen widespread concerns that inflation has returned from the dead. **But with global commodity prices falling and a deep recession in the UK economy set to create huge amounts of spare capacity, it is *deflation* which is about to be reborn.**
- **The forces that have lifted UK inflation sharply higher over the last year or so are now set to work strongly in the opposite direction.** The drop in oil prices from $140 per barrel (pb) in the summer to just $60pb is set to bring petrol prices down sharply further. Gas and electricity prices should also come down modestly in time.
- Meanwhile, the recent drop in agricultural commodity prices suggests that CPI food prices could fall by at least 5%. **Together, food and energy effects could knock something like 5% off headline CPI inflation in the next 12 months.**
- **Admittedly, there are some reasons why *core* inflation could continue to creep higher over the coming months.** Previous sharp increases in producers' costs and selling prices could take some time to feed through to the high street, while import prices have also been rising sharply.
- But these forces should be contained and ultimately overwhelmed by the more powerful disinflationary forces associated with what looks set to be a deep and prolonged recession in the economy and the likely creation of very large amounts of spare capacity.
- Much depends on the precise timing of these developments. **But there is now a good chance that CPI inflation turns briefly negative in about a year's time before the deflationary effects of falling food and energy prices start to fade.** Falling house prices and interest rates mean that *RPI* inflation could fall as far as -2% or below.
- **A short burst of deflation driven by falling commodity prices would have positive effects on the economy by boosting confidence and spending power.** But there is a clear danger that the huge amounts of spare capacity created by the recession prompt a more prolonged period of falling prices further ahead which threatens to turn into a Japanese-style deflationary spiral.

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The rebirth of deflation

The last year or so has seen widespread concerns that, after almost two decades of resting in peace, inflation has returned from the dead. But in this *Focus*, we argue that such concerns are set to continue to fade rapidly over the coming months. Indeed, with global commodity prices falling sharply and a deep recession in the economy set to create enormous amounts of spare capacity, it is *deflation* which, after more than half a century, is about to be reborn.

The history

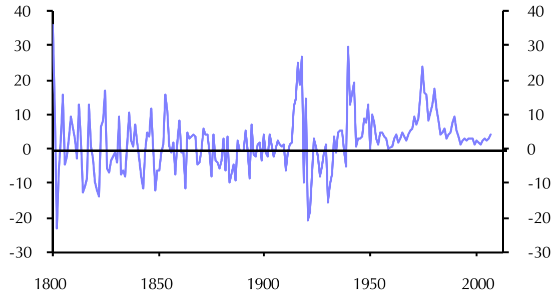
The common perception in recent years, or even decades, has been that deflation in the UK is firmly a thing of the past - and the *distant* past at that. **After all, the last time the published UK inflation rate actually turned negative was way back in 1947, more than sixty years ago.**

Of course, other countries such as Japan, Sweden and the Czech Republic have experienced deflation more recently. But the general impression has been that these episodes have reflected exceptional circumstances – Japan's decade-long recession, for example – which are never likely to be replicated in the UK.

But the conditions required to generate deflation may not be as extraordinary as is generally thought. Chart 1 shows that, until the second world war, deflation was a very common occurrence in the UK. Indeed, inflation was just as often negative as it was positive, with the result that the overall level of prices remained largely constant over time.

Of course, it might be argued that the economy was very different back then, in particular more vulnerable to sharp movements in commodity prices and to swings in the cycle. **But with oil and commodity prices currently tumbling and the economy set to enter, if not already *in*, a deep and protracted recession, things perhaps don't look dramatically different today.**

CHART 1: UK RPI INFLATION (%Y/Y)

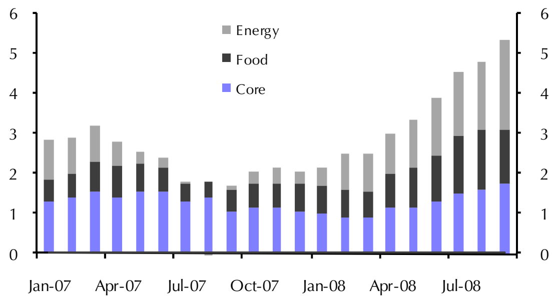


Source – The Economist, Thomson Datastream

The path to deflation

So the current broad conditions in the UK economy may not be altogether dissimilar from those which have, in the past, seen bouts of negative inflation. But just what sort of developments would we need to see average consumer prices actually start to fall?

CHART 2: CONTRIBUTIONS TO CPI INFLATION (% PTS)



Source – Thomson Datastream

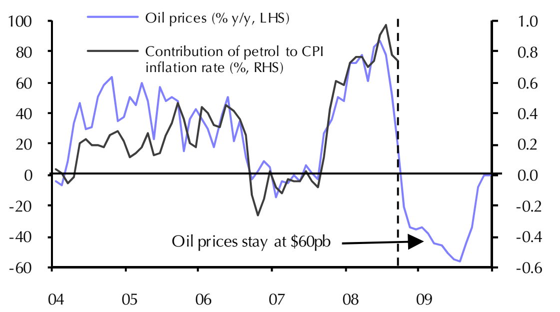
Needless to say, much depends on the behaviour of those elements which have pushed inflation *up* so sharply over the last year. Chart 2 gives some idea of this by showing the contributions to inflation from three key elements; energy (which includes petrol, gas and electricity and accounts for just over 7% of the CPI), food (including alcohol and tobacco, 15% of the index) and "core", which is everything else, and accounts for the remaining 78% of the index. It shows how the rise in inflation from 2% in October 2007 to the 17 year high of 5.2% in September 2008 was driven primarily by sharp increases in both energy and food inflation.

Negative energy

Of course, the upward influence on inflation of these components was always set to fade over the next 12 months or so, even if oil and agricultural food prices had simply levelled off. **But it now looks likely that they will have a powerful *downward* influence on inflation.**

Most obviously, the collapse in the oil price from its peak of over $140 per barrel (pb) back in the summer to just $60pb looks set to push energy inflation strongly into negative territory. Chart 3 makes the point very clearly by plotting the annual change in oil prices against the contribution of petrol prices - which not surprisingly move very closely with oil prices - to overall inflation. It suggests that petrol's contribution will fall from +0.8% in September to around -0.6% in 12 months' time. So this alone would bring inflation down from September's rate of 5.2% to less than 4%.

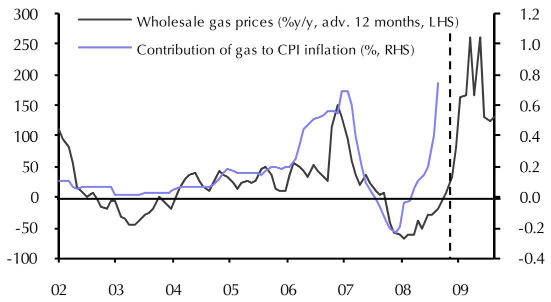
Chart 3: Oil Prices & Petrol Contribution to CPI



Source – Thomson Datastream

Of course, it is possible that other forms of energy prices, such as gas and electricity, prove to be rather more stubborn. As Chart 4 shows, wholesale gas prices remain more than 100% higher than their levels of a year ago.

Chart 4: Wholesale & CPI Gas Prices (%y/y)



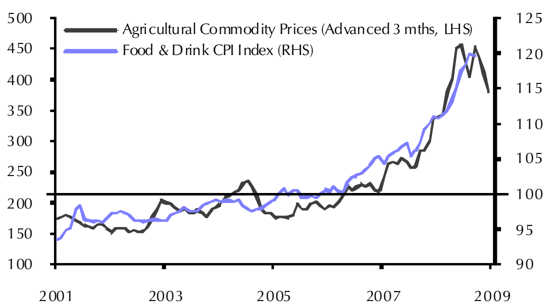
Source – Thomson Datastream

But even if gas and electricity prices remain at current levels, their upward influence on inflation – which amounted to +1.2% in September – will fade to zero over the next year. **And there must be a good chance that they end up falling quite sharply in response to lower oil prices, with strong *negative* effects on inflation.**

Food going down

So energy prices could bring overall CPI inflation down pretty sharply over the next year or so. But they are unlikely to be the only strong downward force. Chart 2 showed that the other main upward influence over the last year has been food prices, which have risen sharply in response to surging agricultural commodity prices.

Chart 5: Ag. Commodity Prices & CPI Food Prices



Source – Thomson Datastream

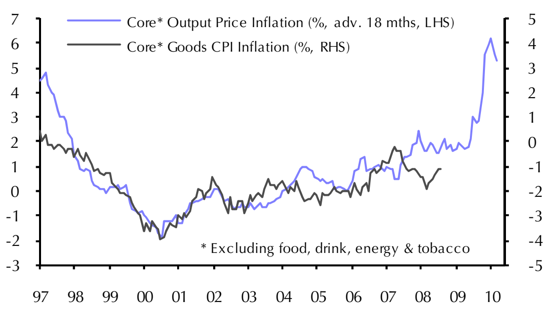
But this process also looks set to go into reverse in response to recent falls in commodity prices. As Chart 5 shows, the latter already points to a probable fall in the CPI food price index of around 5%, which would see food's contribution to overall inflation fall from September's +1.2% to around -0.5% this time next year. Needless to say, further falls in commodity prices would point to bigger falls in CPI food prices.

The core issue

So a reversal of the previous sharp rises in food and energy price inflation means that headline CPI inflation is certain to drop back sharply over the next 12 months. **But whether or not the UK actually experiences *deflation* is likely to rest heavily on the behaviour of *core* inflation.** This, in turn, seems likely to depend on the relative strength of two opposing forces – the inflationary effect of previous sharp rises in production costs and the *deflationary* effect of rising spare capacity.

There is certainly a possibility that the pass-through of previous cost increases lifts core CPI inflation higher. As Chart 6 shows, movements in producer output price inflation normally affect goods prices in the high street after a lag of up to 18 months. With PPI inflation having only just peaked, this suggests that core CPI inflation could rise for at least another year, if not more.

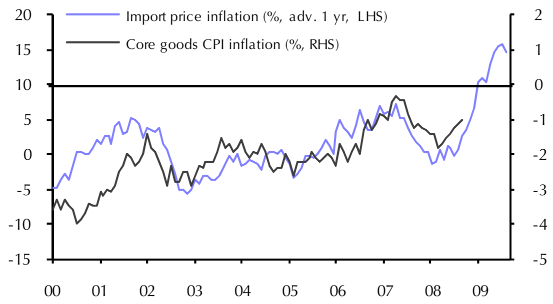
CHART 6: PPI & CORE GOODS CPI INFLATION (%Y/Y)



Source – Thomson Datastream

At the same time, Chart 7 suggests that previous increases in import price inflation could likewise continue to put upward pressure on CPI goods prices for some time. **Together, these forces would seem to rule out any prospect that overall inflation will turn negative.**

CHART 7: IMPORT PRICES & CORE GOODS INFLATION (%Y/Y)



Source – Thomson Datastream

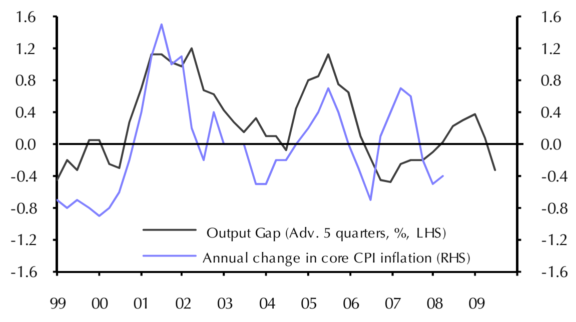
But these upward pressures are likely to be at least partly offset - if not completely overwhelmed – by the *deflationary* effects of what now looks certain to be a very severe recession in the wider economy and the enormous amount of spare capacity which it will create.

Much has been written about how the relationship between inflation and the strength of demand has loosened over recent years. Amongst other things, this might reflect the increasingly global determination of inflation and the solid anchoring of inflation expectations in line with central bank targets.

But it seems likely that a deep recession in the economy would still have powerful disinflationary effects. Chart 8 backs this up by plotting annual changes in core CPI inflation against one measure of the output gap, that is, the difference between the current level of output in the economy and the "trend" or potential level expressed as a share of GDP.

It confirms that changes in the amount of slack in the economy are still a strong influence on movements in inflation, with inflation generally rising when the economy is running above trend (a positive output gap) and falling when there is spare capacity (a negative output gap).

CHART 8: OUTPUT GAP & CHANGE IN CPI INFLATION

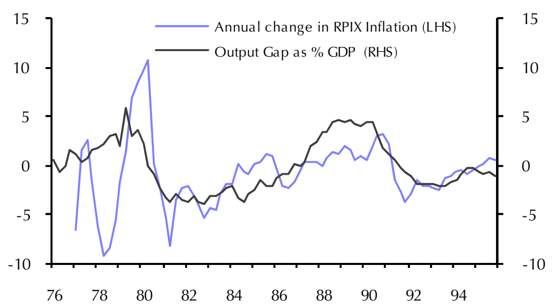


Source – Thomson Datastream, OECD

Chart 9 adds a historical perspective by showing what happened to inflation in the last two major downturns in the economy. (We have used RPIX inflation here because it has a longer back-run than CPI, but the picture is unlikely to differ markedly.) It confirms that the creation of large amounts of spare capacity brought inflation down very sharply in both episodes.

In the early 1980s, the swing from a positive output gap of over 5% of GDP to a negative gap of -4% was accompanied by a fall in inflation from a peak of 20% in 1980 to just 5% two years later. Similarly, the drop in the output gap from +4% to -2% in the early 1990s saw RPIX inflation fall from 9% to just above 2%.

CHART 9: OUTPUT GAP & ANN. CHANGE IN RPX INFLATION



Source – Thomson Datastream

Of course, other factors may have helped to bring inflation down in those episodes. Commodity prices fell sharply in the early 1980s and a strong exchange rate may also have helped to bear down on prices in both periods.

But the weakness of the economy almost certainly played some part and, in that respect, the disinflationary effects of the current downturn could be even stronger. Given the starting point of an economy close to trend (i.e. the output gap is close to zero) and a potential rate of GDP growth of around 2.5%, our expectation that the economy will *contract* by around 1.5% in 2009 and by another 1% in 2010 suggests that an output gap of as much as 8% of GDP could open up over the next few years. At the same time, we expect a huge increase in spare capacity in the labour market, with unemployment set to rise to around 10% of the workforce. **Even allowing for some weakening in the link between demand and inflation, these developments will surely have a strong negative effect on wages and core CPI inflation.**

All in the timing

On the face of it, then, the combination of sharp falls in food and energy price inflation and a deep recession in the economy would seem to present a "perfect storm" of forces bearing down on inflation. **But whether or not inflation actually turns negative will depend in part on the relative *timing* of these various developments.**

On the assumption that oil prices do not fall significantly further from current levels, the disinflationary influence of lower energy prices is likely to be most intense in September 2009, the anniversary of the strongest *inflationary* effect this year. Food price inflation might also be close to a low around that time too, having almost certainly peaked in August 2008.

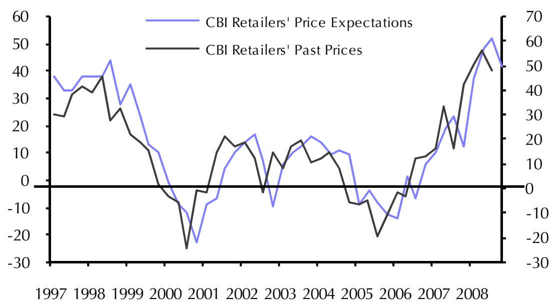
Quite how high or low core inflation will be at that point, however, is less clear. Given the normal lags involved, it is possible that previous sharp increases in producers' costs and selling prices are still pushing core CPI inflation higher at that point, or at least preventing it from falling. Rising import prices may also still be having an upward effect.

Note too from Chart 7 that inflation normally responds to changes in the amount of spare capacity in the economy after a lag of around a year. Accordingly, the downturn in the economy may still not be having a strong downward effect on core inflation in a year's time. Meanwhile, the MPC has argued that core inflation may naturally *rise* when energy inflation falls as previous constraints on other costs ease and households' discretionary spending power improves.

Despite these points, there are still good reasons to think that core inflation may be rather lower in a year's time. For a start, we doubt that the MPC's argument holds as strongly against a background of falling activity, rising unemployment and very low confidence. In these circumstances, consumers may save the bulk of any extra income freed up by falling energy and food prices.

Meanwhile, we suspect that the exceptional speed and depth of the downturn in the economy already seen may mean that the normal downward effects on inflation come through rather more quickly than in some previous episodes. It is notable that survey measures of retailers' price expectations have already started to fall. (See Chart 10.)

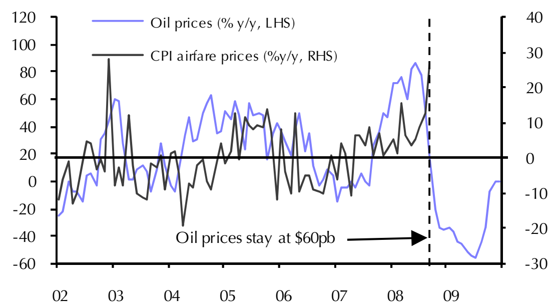
CHART 10: CBI RETAILERS' PRICE EXPECTATIONS



Source – Thomson Datastream

And finally, we have pointed out before that some components included in the published measure of core inflation are very heavily influenced by movements in food and energy inflation and could therefore fall back sharply. (See *UK Economics Update* "A rise in core inflation may not reflect underlying price pressures", 13th July 2008.) Airfares, for example, have climbed by a whopping 26.5% over the last year in response to higher oil prices, adding around 0.3% to core inflation. As Chart 11 shows, this effect could go strongly into reverse as oil price inflation now plummets. This alone could knock 0.5% or 0.6% off core inflation.

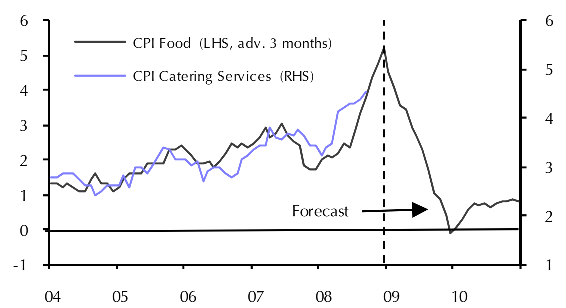
CHART 11: OIL PRICES & CPI AIRFARE PRICES



Source – Thomson Datastream

Similar effects could be seen in other components like catering services, which includes restaurant and canteen prices. As Chart 12 shows, catering services inflation not surprisingly moves pretty closely with food inflation and is therefore likely to fall back in line with the latter over the next 12 months. **If it drops from its September rate of 4.6% to around 2% as the chart suggests, this would knock another 0.4% or so off overall core CPI inflation.**

CHART 12: FOOD & CATERING SERVICES CPI (%Y/Y)



Source – Thomson Datastream, Capital Economics

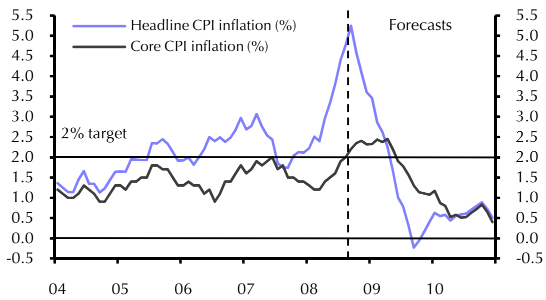
Deflation ahead!

Bringing all of these points together, then, Chart 13 below shows our new profile for UK CPI inflation out to the end of next year.

We believe that the assumptions for food and energy prices are very plausible, if not conservative. We assume that oil prices ease modestly further to $55 per barrel by the end of this year and to $50 pb by the end of next year. Coupled with the sharp falls in oil prices already seen, this prompts gas and electricity prices to fall by 5% and 3% respectively over the next 12 months. (This would still leave both over 20% higher than when oil prices were last so low.)

Meanwhile, we have factored in a fall in food prices of a bit less than 5%, in line with the decline implied by the fall in agricultural commodity prices already seen. (See Chart 5 again.) Finally, we have allowed for core inflation to rise to around 2.5% over the next six months before then dropping back to just below 1.5% in a year's time, in line with its level at the start of this year. It then declines further in 2010 in response to the growing degree of spare capacity in the economy.

CHART 13: HEADLINE & CORE CPI INFLATION (%Y/Y)



Source – Thomson Datastream

Overall, these conditions are very similar to those which we suggested in our 2008 annual conference and subsequent *Global Economics Focus* ("The road to deflation" 15th Oct.) would be sufficient to deliver deflation in a number of economies, including the UK.

And indeed, the Chart shows headline inflation falling back very sharply over the next 12 months. In July next year it falls below 1%, triggering a letter from the Governor of the Bank of England to the Chancellor explaining why inflation has moved more than 1% below its 2% target. **And in September 2009 it actually falls below zero, delivering deflation in the UK economy for the first time in over half a century.**

Admittedly, the chart shows that we expect CPI inflation's foray into negative territory next year to be only very shallow and brief, before the disinflationary effects of falling food and energy prices start to fade again. And there are, of course, risks and uncertainties around this central forecast. It is possible that oil and commodity prices will start to rise again, and core inflation may remain elevated for longer than we have assumed. If this is the case, then CPI inflation may not actually turn negative at all next year.

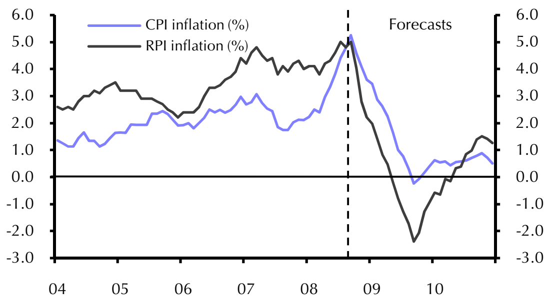
Equally, however, there must be a very real possibility that energy and food prices fall significantly further than we have assumed, in which case inflation might not only move further into negative territory, but stay there for longer.

What's more, even if CPI inflation does not reach negative territory next year, this does not mean that the UK will not experience deflation during the current economic cycle. For a start, the extra downward pressure exerted by falling house prices and sharp cuts in interest rates and hence mortgage payments means that *RPI* (retail price index) inflation is very likely to turn quite deeply negative next year even if CPI inflation does not.

Indeed, if, as we expect, mortgage rates fall towards 3% in response to a fall in official rates to around 1%, while house prices continue to drop at their recent rate of around 15% per annum, we estimate that RPI inflation could drop to -2.0% or even lower by September 2009. (See Chart 14.) This would be the lowest reading on this measure of inflation since a brief bout of deflation in January 1939.

Needless to say, this could have important implications for the various instruments and benefits which are linked to RPI inflation, such as index-linked gilts and state pensions. We will investigate these various issues further in forthcoming publications.

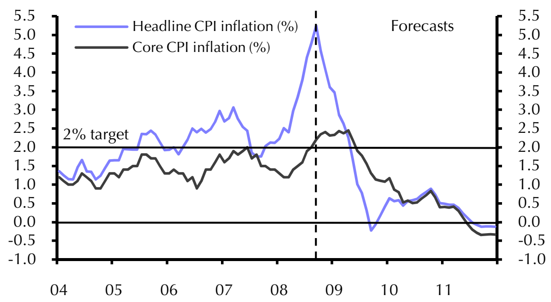
CHART 14: HEADLINE & CORE CPI INFLATION (%Y/Y)



Source – Thomson Datastream

And second, while CPI inflation is likely to rise towards the end of next year and early in 2010, there is a strong prospect that it will fall back again in 2011 and beyond as core inflation continues to decline and perhaps turns negative itself in response to the likely enormous amounts of spare capacity in the economy we discussed earlier. (See Chart 15.)

CHART 15: HEADLINE & CORE CPI INFLATION (%Y/Y)



Source – Thomson Datastream

Conclusions

In summary, then, the forces that have lifted UK inflation sharply higher over the last year or so are now set to work strongly in the opposite direction.

Coupled with the disinflationary consequences of what looks set to be a deep and prolonged recession in the economy, these forces could push CPI inflation into negative territory by this time next year. Falling house prices and interest rates suggest that *RPI* inflation could drop to -2% or below.

A brief burst of deflation next year driven by falling commodity prices would have a moderately positive effect on the economy by boosting confidence and restoring spending power. **But there is a clear danger that the enormous amounts of spare capacity likely to be created by the recession eventually lead to a more prolonged period of falling prices which could threaten to turn into a Japanese-style deflationary spiral.**