

Oil and money

QE, EM and monetary policy

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- ▶ **Higher oil prices reflect both supply concerns and rising global demand**
- ▶ **QE is adding to oil price increases as well by 'turbo-charging' EM growth**
- ▶ **Higher oil prices will imply more monetary easing from the west but EM will respond by quantitative tightening**

Oil prices are edging up again. Why are prices rising?

Western policymakers have been accused of stoking oil and wider commodity price rises through quantitative easing. We believe that oil price increases are still a function primarily of higher emerging market demand and supply side concerns especially related to Iran. Our analysis shows only limited impact of direct speculative activity on oil prices, but QE is playing a role in pushing oil prices higher as well by turbo-charging EM world growth.

What will be the impact of further oil price rises? The

historical link between a slump in developed economy growth and lower oil prices globally has been broken, since emerging markets now account for nearly half of oil consumption. Higher global oil prices lead to a drop in non-energy consumer spending in developed economies. In many emerging economies, the biggest threats are inflationary.

What should the policy response to higher oil prices be?

Developed world monetary easing has been ineffective to the extent that it has stoked oil price increases, resulting in an unfavourable growth-inflation trade-off. But we expect monetary easing including QE to remain the main response to oil price increases. The costs to slow growth are much higher than the risk of runaway inflation in an environment of high unemployment and low wage increases.

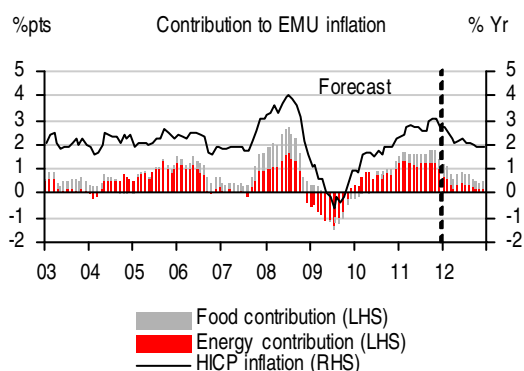
For a number of emerging markets, inflation will ultimately be the main concern, which will favour monetary tightening albeit unconventional tightening. The first line of defence is likely to be fiscal policy, in particular price controls and subsidies, with monetary policy aimed at preventing second round effects on inflation. In terms of fiscal health, it would seem that Asia is better placed than other regions to deal with an oil price shock (see vulnerability index on page 19).

Oil's worth

Globally, the US and other economies seem to be showing signs of stabilisation, raising hopes that this year will be the start of a real period of recovery for the western world. But we've been here before, at the start of 2011 when the growth outlook seemed similarly rosy. That optimism faded quickly as the world economy was buffeted by the impact of the tsunami and earthquake in Japan but more importantly by the surge in oil prices that followed the loss of oil supply from Libya.

Undoubtedly, stable or falling oil prices in 2012 would be a boon, with inflation set to ease as the energy component falls out of the equation. This in turn, would allow authorities more room to focus on growth.

1. Inflation is expected to moderate as the energy component falls out of the equation



But oil prices have started to rise again over the past few weeks – edging back to USD120 per barrel levels – and threaten to throw a spanner in the works for global growth. And both 2008 and end 2010/early 2011 are reminders of the fact that oil prices can move fairly quickly in either direction.

We repeatedly get asked by our clients whether this increase is all down to supply-side disruptions or is a massive speculative bubble aided by QE money. How can oil prices stay so high when we have just been through the worst financial crisis since the Great Depression? What is the right price for oil really? And does it matter whether this price rise is driven by supply shocks or demand increases?

In this piece we try to answer a few key questions:

- ▶ **Why are oil prices rising?** Is monetary policy easing in the west stoking oil price gains? We conclude there is only limited impact from direct speculative activity, but rather that QE is fuelling EM growth and demand, pushing oil prices higher. Supply-side concerns including Iran are only adding to the oil prices increase.
- ▶ **Should we worry about growth or inflation as a consequence?** The impact will differ between developed and emerging market countries. For developed countries, the growth slowdown will outweigh any inflation risks while for emerging markets, inflation will be the bigger threat. We find that besides the net oil exporters, countries in Asia seem best placed to deal with an oil shock in terms of their fiscal health while those in central and eastern Europe are most constrained.
- ▶ **What is the appropriate policy response to oil price shocks? Will the actual response be different?** An unintended consequence of QE has been a rise in oil prices globally,

which has made it more difficult for central banks in the western world to achieve their growth and inflation targets. However, further oil price increases will encourage more accommodative monetary policy and possibly even more QE to prevent a complete collapse of developed world growth. EM central banks should focus on inflation and tighten monetary policy. But more QE in the west will mean more quantitative rather than traditional policy rate tightening in emerging markets. Fiscal policy can be used in these countries to offset some of the impact on the poor. In terms of fiscal health, Asia looks best placed to deal with an oil price surge compared to other regions.

We acknowledge the assistance of Alexander Pefanis (HSBC Bank plc) in the production of this report

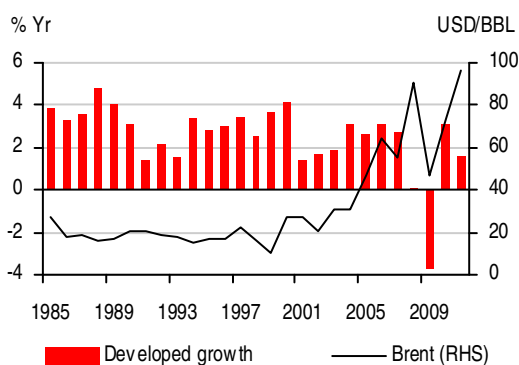
Speculating on oil

- ▶ Evidence of an increase in speculative activity on oil is limited...
- ▶ ...but QE has contributed to the surge in oil prices...
- ▶ ...by 'turbo-charging' emerging world growth and demand

Is it excessive?

Brent oil price averaged around USD20 per barrel over the period 1985-2004. Since 2005, the price of Brent has nearly quadrupled. And this comes at a time when growth in western economies has turned weaker. Oil price moves since the start of the global financial crisis have only sharpened the debate about the role of QE and speculation in driving oil prices. In fact, the price of Brent averaged over USD100 per barrel for an entire year for the first time ever in 2011, and despite central banks including the Fed denying that their quantitative easing policies are fuelling commodity price increases, questions on the role of QE in oil price gains remain unanswered.

2. The rise in oil prices has been astonishing given sluggish developed world growth

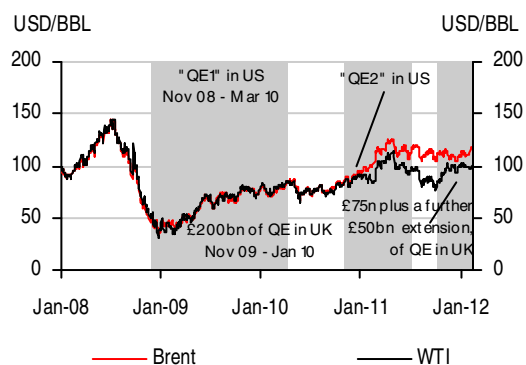


Source: Thomson Reuters Datastream, IMF

There are two possible ways by which QE might be boosting oil price increases: first, by adding to speculative activity or second by supporting global growth expectations.

We begin by looking at a chart of oil price moves and QE announcement/implementation dates for both the US and the UK.

3. The link between oil prices and QE is not very clear

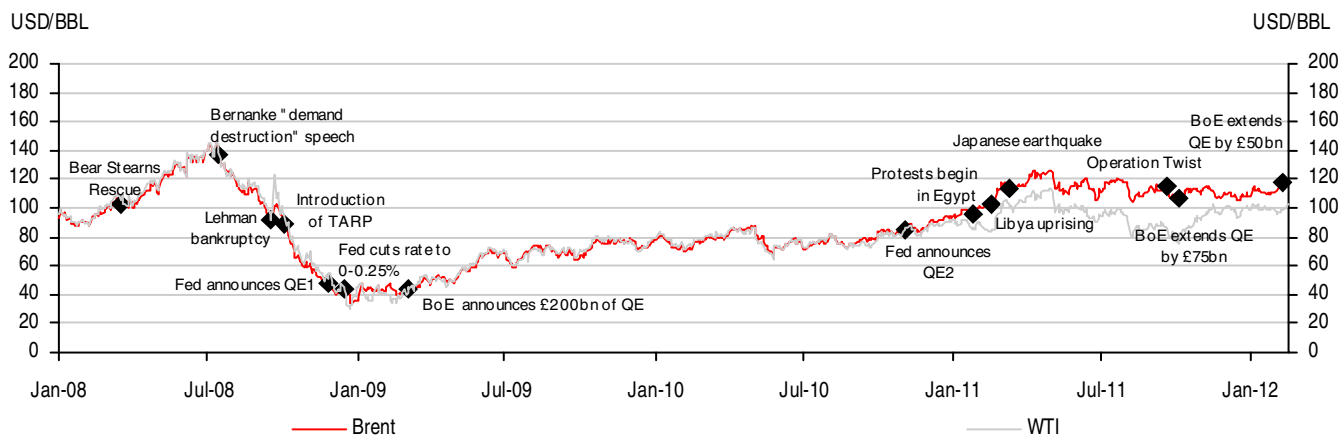


Source: Thomson Reuters Datastream, IMF

Brent prices bottomed out fairly soon after QE was introduced in the US and has been on an uptrend since. This would suggest that QE has played some role in boosting oil prices. But what has the actual mechanism of this feedthrough from QE into higher oil prices been?

From the chart it is unclear whether the oil price increase was the result of more money finding its way into oil speculation or optimism that the

4. Difficult to disentangle the impact of supply-side worries and QE on oil price moves



Source: Thomson Reuters Datastream

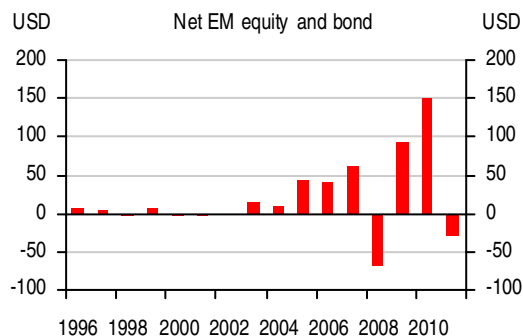
global economy would start to recover on the back of expansionary monetary policy.

It becomes even less obvious in the following rounds of QE. As chart 4 shows it is difficult to disentangle whether the oil price rise was driven by QE or by supply-side concerns such as the loss of Libyan oil supply.

In fact, in [An economic oil slick](#) published on 31 March 2011, we looked at the oil price impact of a 1 million barrel per day loss in oil supply. This pushed oil price higher by USD20 per barrel, which would explain the bulk of the oil price move seen during that period.

Our analysis shows that QE has played only a limited role in raising speculative activity relating to oil (refer box 1 for more details). However, QE is certainly boosting oil prices by supporting global growth expectations. QE liquidity has not stayed within the national boundaries intended, leaking through to emerging markets. This ultra-loose monetary policy in the west has turbo-charged growth in emerging countries, which tend to be more commodity-hungry.

5. Ultra-loose monetary policy has seen a wall of liquidity travelling to EM countries

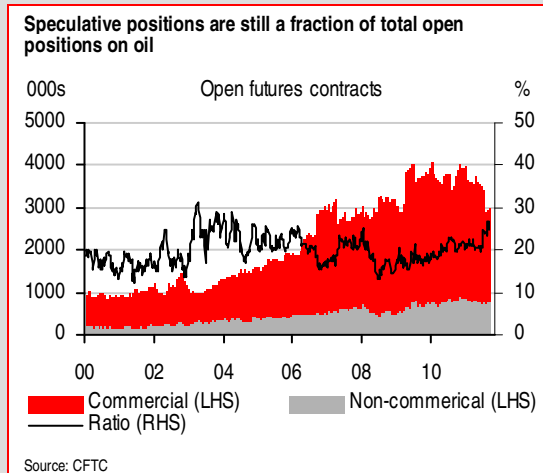


Source: EPFR

It's about emerging market demand

As emerging market growth has outstripped western world growth, there has been a rotation in demand for oil away from western to emerging markets. In fact, oil consumption in the OECD countries which are by and large developed market countries fell 7.0% between 2005 and 2010. But global oil consumption actually rose nearly 4.0% over the same period, pulled higher by a 20% surge in the oil consumption in non-OECD (developing) economies.

Box 1: Speculation is just not big enough

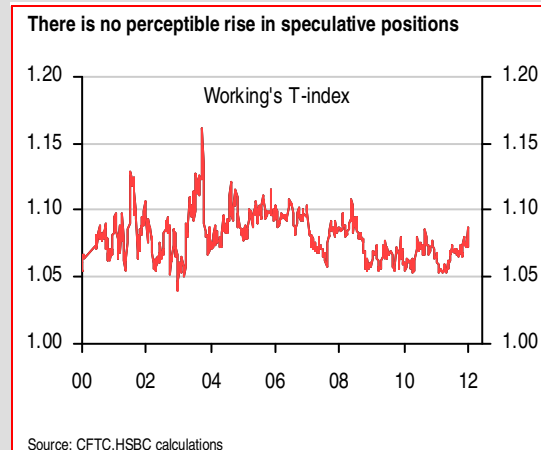


The only information we have on speculative activity is the Commodity Futures Trading Commission (CFTC) data on futures and options trading of oil contracts, where a distinction is made between commercial and non-commercial positions, with the latter representing non-hedging activity or speculative positions.

Speculative positions have risen sharply over the last decade and even more so in the past 4-5 years. However, this is not necessarily reflective of growing speculation, the rise in commercial positions has been just as large and speculative positions continue to be only a small fraction of total open interest positions (less than a fifth currently)¹.

To get a slightly more rigorous view on whether speculative activity has been playing an increasing role in driving oil prices, we calculate the Working's T-index. Simply put, the idea behind this index is that there could exist a natural gap between long hedgers and short hedgers. As a result, some speculative activity is essential to balance this gap between hedging sellers and

buyers. Any surplus of speculative short or long positions after this gap has been filled is what would count as being excessive. The larger the ratio is, the greater is the role of speculation in determining price moves.

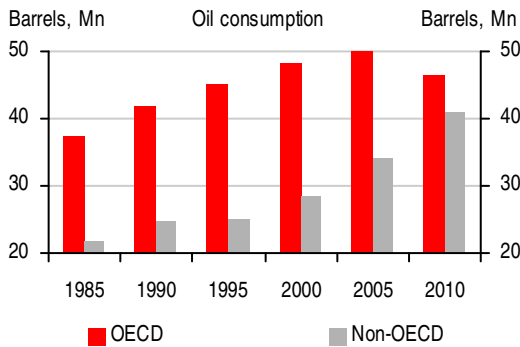


As the chart shows, speculation has historically played some role in determining oil price moves. But it fails to show any material change in this ratio since the start of QE or even over the last five to seven years that would conclusively prove the overriding importance of speculation in determining oil price moves.

One objection to this view could be that oil prices couldn't possibly have risen and fallen as dramatically as they did in 2008 if speculation wasn't involved. But this is not entirely true, similarly sharp moves in the price of oil were also noted in the 1970s when speculation played a much smaller role in determining oil market trends. Also part of the sharp moves in 2008 was related to supply-demand mismatch.

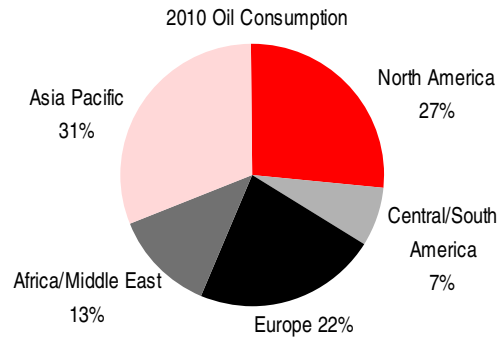
¹ Open interest is defined as the total of all futures and/or option contracts entered into and not yet offset by a transaction, by delivery, by exercise, etc.

6. Emerging market demand has exploded- Non-OECD oil consumption now nearly equals that of OECD countries



Source: BP statistical review 2010

7. Asia is now the largest consumer of oil



Source: BP statistical review 2010

Since 2000, the scale of the rise in oil consumption for emerging markets has been even more staggering – a whopping 44% increase compared to the 3.5% drop for OECD economies. As a result, while the emerging world still only accounts for 25% of total world GDP, it accounts today for nearly half of the oil consumption.

This is not unusual. Given their relatively early stage of development, emerging markets tend to be more commodities intensive and also less energy efficient. Efforts to improve energy efficiency are expected to intensify over the coming years but are unlikely to change the near-term outlook.

8. Average annual growth in commodity prices

	Jan-00	Jan-05	Jan-09
Gold	16.3	22.4	25.2
Copper	13.2	14.7	15.8
Oil	14.7	8.5	45.6
Wheat	9.2	9.4	10.4

Source: Thomson Reuters Datastream, HSBC

And it seems to be that this seismic shift in the importance of emerging nations is affecting the wider commodity basket as well. Oil prices have risen on average by around 15% every year since 2000, but this is not really excessive when compared with moves seen in other commodities prices such as those of copper and natural gas. The sharp rise since 2009 in part reflects the impact of supply disruptions related to Libya and natural disasters.

Coping with reality

- ▶ Fundamentals suggest oil prices are on an extended uptrend...
- ▶ ...burning bigger holes in western consumers spending capacity
- ▶ Emerging market consumers are less exposed but not immune

Level matters, volatility matters more

Emerging markets have been on a process of quick catch-up with the developed world and will increasingly become the main drivers of growth over the coming decades. This process however is being turbo-charged by easy monetary policy including QE in developed countries. Emerging market demand for oil has grown rapidly as a result, stoking rapid price gains.

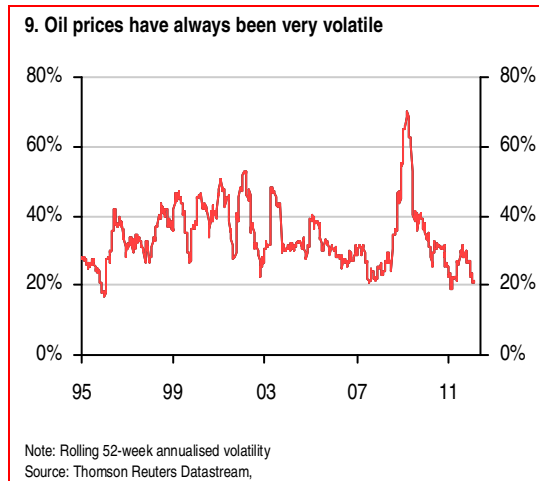
There are however serious doubts about the ability of supply to match this growing demand, implying sustained upward pressure on prices (see [Energy in 2050](#) by Karen Ward for a more in-depth analysis of the demand-supply dynamics governing price rises over the coming decades).

At the same time in the near-term there is still some uncertainty about oil supply, with more oil expected to come onto the market from a recovering Libya but worries mounting about the possibility of supply disruptions related to Iran and the political situation in Iraq (which could delay planned production growth).

Financial and sovereign debt crises, recession risks, supply loss concerns and quantitative easing are all still contributing to the uncertainty about oil prices. The truth is that it's difficult to predict where oil prices will be. And one look at the chart

of annualised volatility is enough to remind us that oil prices are usually anything but stable.

This uncertainty is a problem. We would argue that while the oil price level is very important for the macro story, it is the pace of change that matters even more.

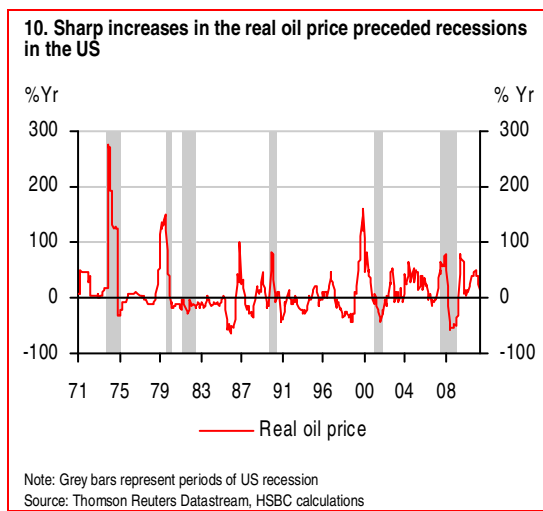


While economic agents get hurt by rising prices, a slow grind higher can still be planned for. On the other hand, sharp moves make it difficult for economic agents to plan ahead. What kind of cost structure should corporates plan around? How much should households cut back on non-essential spending?

The US recession of 1976, 80-81, 91 and 2008 were all preceded by sharp increases in the real price of oil. The level itself mattered less with WTI

averaging around USD20 per barrel in the 80s and 90s, while it was above USD100 per barrel in 2008.

On a global scale, the same trend is very much observed. Oil price surged by 150% in 2000 and global growth halved in the following year.



Why worry? After all it's demand driven

In 2011, the global growth story suffered partly from rising oil prices in response to a supply-driven oil shock. Supply shocks benefit few besides the net oil exporters, acting to raise inflation and lower growth across countries. This year again, oil prices are on the march up, partly driven by supply concerns related to Iran. But some of the rise in oil prices is also being driven by higher demand expectations given signs of stabilisation in global growth.

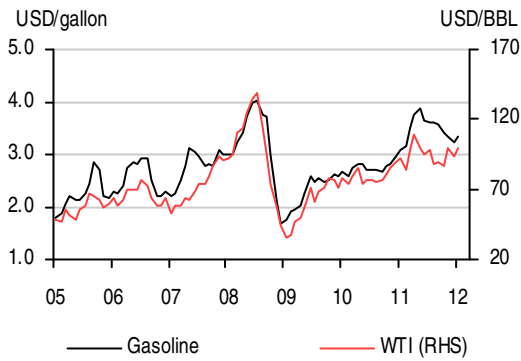
Some argue that an oil price rise driven by demand is not a problem. But this is too simplistic in the current environment when there is a distributional impact of the rise of emerging markets as the main driver of growth.

For developed countries this is similar to a supply-shock driven oil price rise as it is not their demand that is driving growth but an external factor, akin to a drop in supply.

Historically, a slump in growth of developed economies weakened demand and led to lower oil prices globally. This in turn helped stabilise consumer and business expectations and aided economic recovery.

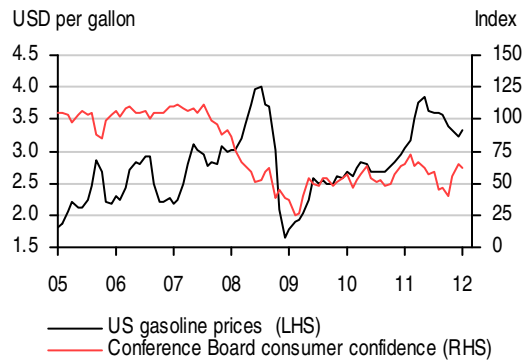
This link has clearly been broken now. The automatic stabilisation that was seen through falling activity, lower prices, rising disposable income and finally growth is no longer happening, complicating the whole recovery process in the western world. Western economic activity is lower than in 2007 but the price of oil is higher. Real disposable incomes are getting squeezed as incomes have not kept pace with inflation caused by rising energy prices. And incomes are not rising because of high unemployment rates and the low bargaining power of employees.

11. Gasoline prices have tracked moves in WTI very closely



Source: Thomson Reuters Datastream

12. Consumer confidence is turning lower as oil prices pick up again



Source: Thomson Reuters Datastream

But transport and energy form the biggest non-discretionary component of household spending. A sharp rise in spending on these without compensating income gains reduces the pot available to spend on discretionary items resulting in lower overall demand.

13. Energy weights in CPI baskets

	Energy
US	9.1
Japan	7.0
Eurozone	10.4
Germany	12.3
France	9.3
Italy	8.4
Spain	10.8
UK	8.7
Norway	7.7
Sweden	8.8
Switzerland	7.2

Source: OECD, National sources

The US experience

One just needs to look at the latest set of surprises on the US economic data to get an idea of the impact oil prices have on consumer spending and growth.

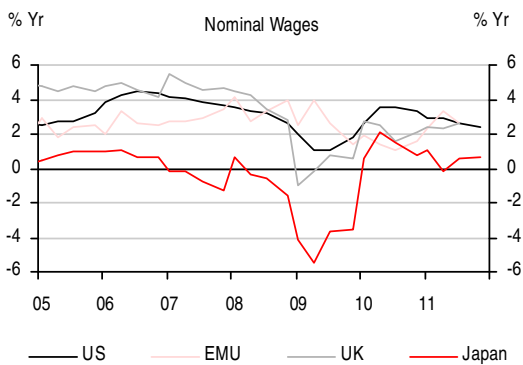
US gasoline prices closely track international oil price moves. As prices moderated over the second half of 2011, consumer confidence and spending picked up. But as oil prices have risen again, consumers are becoming more cautious about a further improvement in outlook and confidence is beginning to wane.

The 'oil transfer' from DM countries

The impact on consumer spending comes from the fact that most countries in the developed world are net importers of oil. Simplistically put, this means that a rising oil price is a transfer of income for example from households in the US to those in the Middle East. This transfer means that there is a lot less left over for households to spend on domestically produced goods.

It's not a new development that western economies are by and large net oil importers. What is new is the pinch coming from the lack of income and wealth rises that we have seen since the start of the financial crisis in 2009.

14. Nominal wage growth in developed markets has been soft



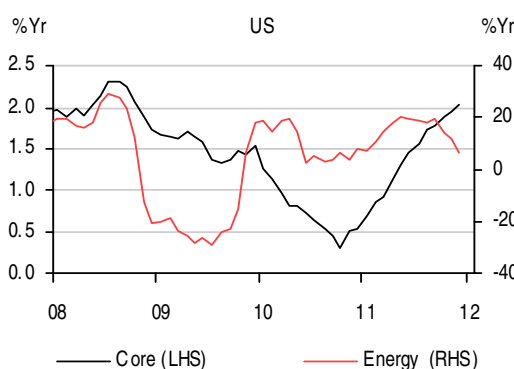
Source: Thomson Reuters Datastream

And it certainly does not help that the marginal propensity to consume of oil exporting countries is lower, which is why they tend to run current account surpluses. As a result, this transfer of income away from western households cannot really be compensated for by a sharp rise in exports of non-oil products to oil-exporting countries.

So falling real disposable incomes actually translates into lower spending on *domestic* output in western economies. And this means lower demand for domestic industry and services sectors. This becomes clear when we look at the inflation chart 15. As energy inflation rose in 2010, core inflation which is more representative of inflation in the domestic economy fell sharply. This fall in core inflation reflects the reduced ability of domestic producers to increase prices given the lower spending capacity of households on domestic output. This in turn implies that these sectors will be less willing to invest in capital expansion or hire more people, lowering the overall supply potential of the economy.

Table 16 shows the quarterly impact of a rise in oil price on consumer spending across countries. It is easy to see that in the absence of offsetting policy measures, the impact on consumer spending is almost immediate and lasts for a number of quarters.

15. Higher energy inflation has been accompanied by lower core inflation since 2009 in the US



Source: Thomson Reuters Datastream

A USD10 per barrel rise in oil price roughly shaves off 0.1% point of growth from consumer spending during the next 3 months.

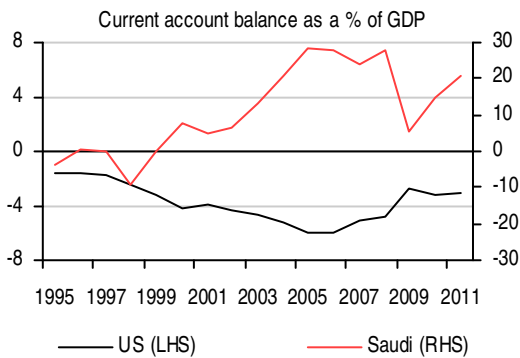
16. Impact on consumer spending, Oil at 150 from Q2 2012

Consumer spending (% points)	2012			2013	
	Q2	Q3	Q4	Q1	Q2
Argentina	-0.1	-0.3	-0.6	-0.5	-0.2
Brazil	-0.1	-0.2	-0.2	-0.2	-0.2
Chile	-0.4	-1.1	-0.7	-0.5	-0.4
Hungary	-0.6	-1.0	-0.9	-0.7	-0.3
Poland	-0.5	-1.0	-0.4	0.3	0.9
Russia	0.2	0.7	0.5	0.6	0.2
Turkey	-0.4	-0.8	-0.6	-0.8	-0.7
South Africa	-0.4	-0.7	-0.6	-0.3	-0.1
China	-0.2	-0.1	-0.1	-0.1	0.0
India	-0.4	-0.7	-0.4	-0.2	-0.4
Korea	-0.2	-0.6	-0.5	-0.4	-0.6
Thailand	-0.3	-0.8	-0.5	-0.4	-0.3
US	-0.3	-0.3	-0.4	-0.4	-0.3
Eurozone	-0.3	-0.6	-0.3	-0.1	0.0
Germany	-0.4	-0.7	-0.5	-0.1	0.1
France	-0.6	-0.5	0.0	0.2	0.1
Italy	-0.3	-0.6	-0.4	0.0	0.1
Spain	-0.3	-0.5	-0.5	-0.3	0.0
UK	-0.1	-0.2	-0.3	-0.3	-0.2

Source: Oxford Economics Forecast Model, HSBC calculations

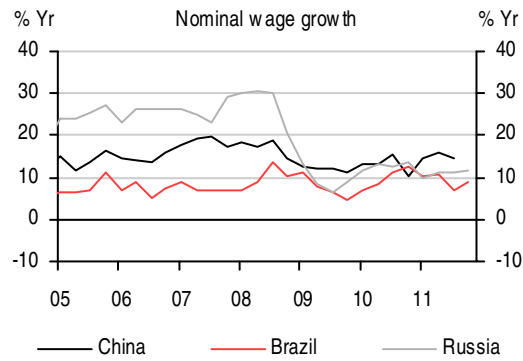
We discuss the growth and inflation implications of higher oil prices in much greater detail in appendix of the report where we do a scenario analysis with oil at different levels.

17. The rise in oil prices has meant a transfer of wealth from DM to EM countries



Source: IMF

18. Wages are still rising at double-digit pace for emerging nations



Source: CEIC, HSBC

EM and 'oilflation' scare

For emerging markets, the impact is more mixed. Well clearly those countries that are oil-exporting will continue to benefit from higher oil prices (though the problems of 'resource curse' or 'Dutch disease' do become an issue over the longer term).

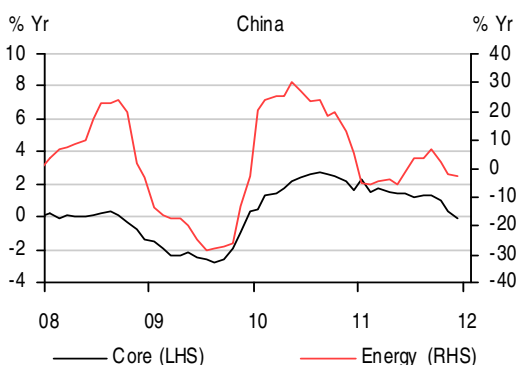
And one could argue that at least for some, say China, an increase in oil price is driven by local demand (although almost every country in the world takes the global oil price as being externally determined). Strong growth in these economies has implied that nominal incomes have kept pace with or exceeded inflation rises, in turn implying that real disposable incomes are rising unlike in western economies. This then does not hamper the demand for *domestic* output and domestic producers are

happy to invest more and still hire people. So in effect, the supply potential of such an emerging market country is not hampered by rising oil prices.

In addition, households in a number of emerging market economies are also protected by subsidies on essential food and fuel that governments extend, which also helps protect consumer spending.

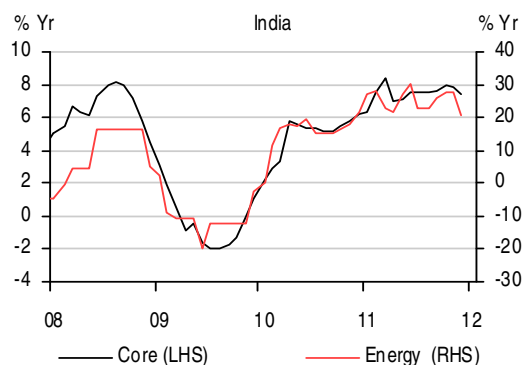
But the Arab spring was a harsh reminder that while emerging countries are doing better than their western counterparts in terms of growth, they are still poor. Transport and energy forms a large part of their consumption basket and changes to oil prices cannot be completely ignored. A quick look at the charts 19 and 20 suggests that it is more difficult to disentangle the impact of energy price rises from core inflation for emerging markets.

19. For China core and energy inflation have broadly moved together...



Source: Thomson Reuters Datastream

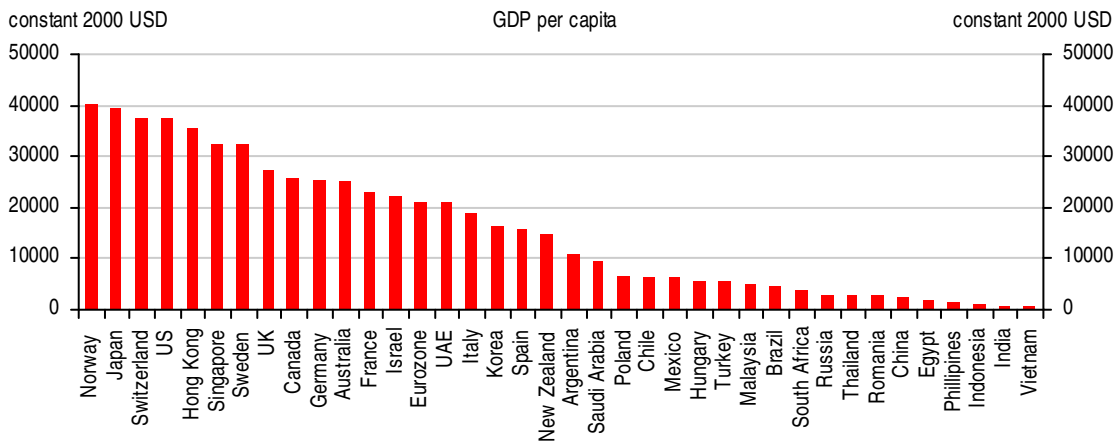
20. ...this is particularly true in India



Source: Thomson Reuters Datastream

The feedthrough seems to be more immediate and widespread. In other words, while for western economies this is a relative price shift that actually lowers the supply potential of the economy, for emerging markets, higher oil prices are a more generalised rise in prices that can hurt economic growth through a dislocation of inflation expectations if it is not controlled.

21. EM countries are still poor and vulnerable to rising inflation



Source: World Bank; Note: Latest datapoint 2010; Australia and New Zealand 2009

Box 2: Modelling EM inflation

A lower degree of development suggests food and energy comprise a larger share of EM consumption basket than in DM. Not surprisingly this makes EM inflation more sensitive to movements in commodity prices. In order to understand the dynamics of inflation, HSBC EM Research constructed a simple model of inflation pressures. This model decomposes price pressures in each economy into several factors: a structural component, food and energy prices (using futures), the business cycle and exchange rates (using HSBC forecasts).

The model does not intend to forecast inflation. Instead, it serves as a gauge of whether inflation pressures are building. For example, the increase in the price of oil might not translate into actual inflation for a country in which gasoline prices are subsidised, yet they will accumulate in terms of fiscal costs which might eventually result in fuel price hikes.

In its general form, the model is based on the following equation:

$$(1) \Pi_t = C + \beta_1 * Food_{t-1} + \beta_2 * FX_{t-2} + \beta_3 * Ygap_{t-3} + \beta_4 * WTI_{t-4} + \mu_t$$

in which Π_t is the y-o-y inflation at moment t; Food is a food index; FX is the exchange rate; Ygap is the

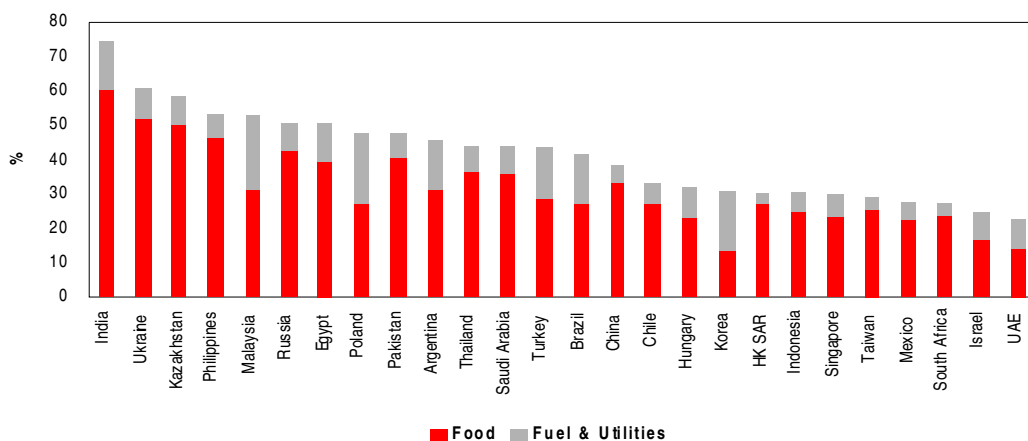
output gap; WTI is oil prices; and in is the chosen lag to maximise explanation power.

The model shows that 10% increase in WTI increases inflation by 0.1-0.2% in Latam, but by 0.2-0.4% in Asia and EMEA. More precisely, the table below shows the estimated inflation pressure of a 10% increase in oil prices expressed in bps.

Inflation pressure per 10% increase in WTI (bps)	
Country	Inflation pressure
Brazil	20
Chile	17
Colombia	5
Mexico	9
Peru	14
Czech Republic	22
Hungary	4
Israel	30
Poland	8
South Africa	26
Turkey	36
Russia	30
Indonesia	41
Philippines	38
Korea	13
China	23
Malaysia	24
Singapore	1

Source: HSBC

21A. Weights of food, fuel & utilities in EM consumer price baskets



Source: HSBC, National statistics

Policy response

- ▶ Despite its drawbacks, more QE will remain the main policy response for developed countries...
- ▶ ...as growth fears outweigh inflation concerns
- ▶ EM countries can still go down the fiscal route first, but will have to tighten monetary policy ultimately to mitigate inflation fears

The policy conundrum

What should the monetary policy response be to another oil price shock? Supply-driven price shocks resulting from war or natural disasters are considered to have only temporary impact with the restoration of supply over time expected to help prices ease back down. This in our view would suggest that monetary policy stay accommodative across countries, both in the developed and emerging market space.

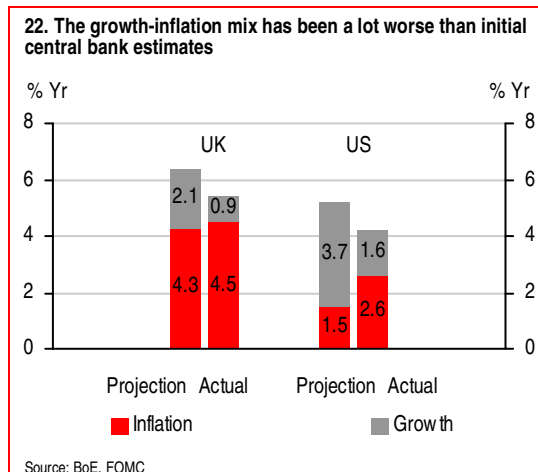
But what happens when the price of oil rises on the back of global demand picking up? And what if monetary policy itself stokes those price rises?

Western policymakers including the Fed have repeatedly argued that ultra-loose monetary policy in the west is not leading to higher oil prices. The lack of any real increase in speculative demand favours this stance. However, a lot of the QE money has found its way into emerging markets and is fuelling EM growth and in turn oil demand.

This reduces the effectiveness of monetary easing the west. As we have seen in the previous section, higher oil prices are hampering western economic recovery. If the main aim of policy easing in the west is to raise return growth to pre-crisis levels

while keeping inflation under control, this clearly hasn't been achieved.

Nominal GDP growth in 2011 was only modestly below projections made by the Fed and BoE at the start of 2011. However, a look at the real growth-inflation mix shows a picture worse than the projections made by the two central banks. Real growth was a lot weaker and inflation a lot higher than was being estimated by the either central bank, partly because of the surge in inflation on the back of higher commodity prices.



In their paper 'What should inflation targeting countries do when oil prices rise and drop fast?' Nicoletta Batini and Eugen Tereanu argue that

inflation targeting central banks should tighten policy rates aggressively in response to a sharp rise in oil prices. *'An aggressive increase in real interest rates, meant to close the inflation gap over the minimum efficient policy horizon. Repeated rates rise in nominal terms would ensure determinacy and strengthen the anti-inflation signalling of monetary authorities.'*

The ECB certainly followed this principle in 2008. Surging oil prices and the threat of dislocation in inflation expectations saw the ECB raise rates twice in the first half of the year. But as growth collapsed in the ensuing period as the scale of the crisis unfolded, it had to reverse these rate rises. Rising inflation and stabilising growth saw the ECB raise rates in early 2011 as well, but as growth faded the ECB has cut the refi rate twice in November and December 2011.

The BoE, which is also an inflation targeting central bank, however chose to look through the inflation surge in 2008, citing the impact of exogenous factors. Instead, it focussed on the growth slowdown and actually cut rates later on in the year as the crisis unfolded. The downside for the BoE has possibly been the loss of some credibility with inflation breaching its target three years on the trot. In addition, the growth-inflation trade-off has been much worse than targeted by the central bank.

The truth is that central banks are finding it increasingly difficult to come up with the right policy response, especially when their own actions are adding to the deterioration in the growth-inflation mix.

More QE is still the answer in the DM world

Monetary easing seems to be ineffective to the extent that it drives oil prices higher which in turn worsens the growth-inflation mix. Despite this, we think that central banks in developed countries

will ease monetary policy further through balance sheet expansion following an oil price shock.

This would seem counter-intuitive for a central bank that targets inflation. After all, we are effectively saying that an inflation targeting central bank stands willing to take steps that could possibly see it miss its inflation target, at least in the short-run.

One can question whether inflation targeting in its present form really makes sense or whether it needs to be re-visited. This would take us into the sphere of what is an appropriate monetary policy target and given the structural upheavals taking place in the global economy at present, does inflation targeting, especially targeting of headline inflation, really make sense? Fed Governor Edward Gramlich in his speech in 2004 suggested *'A better approach would be to follow a policy rule based directly on target values of unemployment and some appropriate measure of inflation. One example is a Taylor rule, under which monetary policy makers would move the short-term target interest rate--the federal funds rate in the United States--up or down to respond to deviations in **core inflation and unemployment** from their target values'*

Stephen King has written extensively about the need to re-visit inflation targeting in its current form (see [An unconventional truth](#) published on 13 September 2010).

But we are keeping it relatively simple here. The argument is as follows. While QE has its drawbacks, it has managed to prevent a total collapse in growth and central bankers in the western world will continue to use it as the main policy tool to achieve their growth targets.

In other words, monetary policy is aimed at ensuring that an economy grows close to potential. As we have discussed in the previous section, rising oil prices (driven primarily by EM

demand) are akin to a supply shock that lower potential output growth.

The lower growth potential is consistent with a lower rate of interest. With the nominal rate at rock-bottom, lower real rates can only be delivered by higher inflation so the only option left is to really expand balance sheets and ease monetary conditions.

It could be argued that lower potential growth implies a smaller output gap and hence less monetary policy accommodation required.

However, what we are saying is that an oil price shock could potentially cause such a dramatic fall in demand that actual growth stays well below even the reduced potential growth rate and the output gap doesn't close. In this case, monetary policy needs to remain loose. This is especially true if the central bank thinks that second round effects ie inflation expectations are fairly well anchored.

23. Subsidies related to oil have risen in absolute terms but are still small as a proportion of GDP for most countries

	2007		2010	
	USDbn	% GDP	USDbn	% GDP
Saudi Arabia	23.7	6.2	30.6	6.8
Egypt	14.0	10.7	14.1	6.4
Malaysia	2.7	1.4	3.9	1.6
Indonesia	11.3	2.6	10.2	1.4
India	17.4	1.5	16.2	1.0
UAE	1.5	0.6	2.7	0.9
Mexico	16.5	1.6	9.3	0.9
Thailand	1.6	0.6	2.1	0.7
Philippines	0.2	0.1	1.1	0.6
Argentina	3.9	1.5	0.8	0.2
China	11.8	0.3	7.8	0.1
Taiwan	0.6	0.2	0.2	0.1
South Africa	0.2	0.1	0.0	0.0
Korea	0.0	0.0	0.0	0.0
Russia	0.0	0.0	0.0	0.0
Vietnam	0.3	0.4	0.0	0.0

Source: IEA, IMF, HSBC

Clearly the ECB has not taken this view in the past and has tightened policy only to reverse it, which might happen again. At the same time, there is the risk that the BoE doesn't even have the credibility left to accommodate first-round effects.

Going down the fiscal policy route for EM countries

In his speech on Oil and the Economy, October 21, 2004, Ben Bernanke argues that *'the Fed's response to the inflationary effects of an increase in oil prices should depend to some extent on the economy's starting point. If inflation has recently been on the low side of the desirable range, and the available evidence suggests that inflation expectations are likewise low and firmly anchored, then less urgency is required in responding to the inflation threat posed by higher oil prices. In this case, monetary policy need not tighten and could conceivably ease in the wake of an oil-price shock.'*

Bernanke's framework, which is the traditional monetary policy response, in our view works for emerging markets. Broadly, we think that for emerging markets, the policy response would be easy fiscal- tight monetary policy. Given the very quick feedthrough of energy inflation into core inflation, monetary policy needs to be tightened to prevent second-round effects. Fiscal policy on the other hand can be used to provide targeted assistance to the poorer sections of society.

Unlike developed countries, many EM nations still have the option of using fiscal policy to offset the oil impact. Governments here can decide to impose/extend price controls or subsidies to deal with higher oil prices. At present, surprisingly, the biggest subsidies are provided by the oil producers like Saudi but this is fiscally tenable as the subsidy is offset by higher revenue from oil. Of the oil-deficit countries, oil subsidies are substantial in a few countries like Indonesia but largely absent elsewhere. How long a country can sustain these subsidies would depend upon the health of its fiscal position.

To get a sense of which countries are best placed to deal with the oil price rise, we look at which

countries are net oil importers/exporters, what is the efficiency of oil use and how strong are they fiscally to be able to offset some of the negative impact of higher oil prices. Putting all these together (table 24), it would seem that (aside from the net oil exporting countries) countries in Asia are best placed to deal with an oil price shock while those in the central and eastern Europe region are most constrained to deal with a rise.

At the same time, the negative fiscal impact of subsidies would at least partly be offset by higher tax revenue from resilient growth in the short-run. Monetary policy on the other hand needs to be tightened to control second round effects of higher oil prices.

Over the long-run, of course, fiscal subsidies or price controls are not sustainable. Many studies have been conducted by the IEA and the OECD to show that these subsidies are actually counter-productive in the end. They artificially boost oil demand which in turn pushes oil prices higher, puts severe strain on fiscal positions and there is little evidence to suggest that these subsidies are really reaching the poorest sections of society.

According to the IEA, only 8% of the USD409bn spent on fossil-fuel subsidies in 2010 went to the poorest 20% of population. In addition, the withdrawal of subsidies can be politically challenging as was seen both in India and in Nigeria recently where the decision to cut back on subsidies had to be reversed after strong and in Nigeria's case, violent, protests.

The hope would be that as emerging markets grow and per capita income levels rise, these economies will be able to phase out such subsidies.

Conclusion

EM central banks will have to ultimately focus on inflation and tighten monetary policy in response to higher oil prices. DM central banks will continue to focus on growth however, which will imply more accommodative monetary policy. For those countries that have already reached the zero bound on interest rates, this would likely translate into additional QE as well. This QE however will mean more money flowing into the EM world. To offset some of the negative impact of these surging inflows, EM central banks are more likely to choose quantitative tightening over conventional policy rate hikes to deal with the inflation threat.

24. The Vulnerability Index

	Net oil consumers (mn barrels per day)	Energy efficiency (Units of GDP per unit of energy use; constant 2005 PPP USD/KG oil equivalent)	Budget balance (% of GDP)	Gross Debt/GDP
China	5.0	3.7	-2.3	33.8
India	2.5	5.1	-8.4	64.1
Hong Kong	0.3	18.5	4.5	34.6
Indonesia	0.3	4.3	-1.2	27.4
Malaysia	-0.2	5.2	-5.1	54.2
Philippines	0.3	7.9	-3.5	44.7
Singapore	1.2	12.5	5.2	96.3
South Korea	2.4	5.4	1.7	33.4
Taiwan	--	--	-4.8	38.6
Thailand	1.0	4.8	-2.7	44.1
Vietnam	-0.03	3.7	-5.7	52.8
Mexico	-1.0	8.3	-4.3	42.9
Chile	0.3	7.4	-0.3	9.2
Argentina	-0.1	7.2	-1.6	49.1
Brazil	0.5	7.6	-2.9	66.8
Hungary	--	6.7	-4.3	80.2
Poland	0.6	6.5	-7.9	55.0
Romania	0.1	6.8	-6.5	31.7
Israel	0.2	9.1	-4.1	77.4
Russia	-7.1	3.0	-3.5	11.7
Turkey	0.6	8.7	-2.9	42.2
Saudi Arabia	-7.2	3.4	6.7	9.9
Egypt	0.02	5.9	-8.3	73.8
United Arab Emirates	-2.2	5.3	3.6	21.0
South Africa	0.4	3.2	-5.0	33.8
United States	11.6	5.9	-10.3	94.4
Canada	-1.1	4.7	-5.6	84.0
Eurozone	10.2	--	-6.0	85.8
Germany	2.4	8.2	-3.3	84.0
France	1.7	7.3	-7.1	82.3
Italy	1.4	9.5	-4.5	119.0
Spain	1.5	9.7	-9.2	60.1
United Kingdom	0.2	9.8	-10.2	75.5
Norway	-1.9	7.4	10.9	55.4
Switzerland	0.2	11.2	0.4	54.5
Sweden	0.3	6.2	-0.3	39.7
Australia	0.4	5.7	-4.9	20.5
New Zealand	-0.2	6.1	-5.8	32.0
Japan	--	7.9	-9.2	220

Source: IMF, BP Statistical review 2011, World Bank

Appendix – Oil scenarios

- ▶ Iran remains the main worry for the oil market in the near-term
- ▶ Developed countries see a larger hit to growth than a spike in inflation from higher oil prices...
- ▶ ...Emerging countries face the opposite

Our global growth and inflation forecasts (see [When the wheels fall off](#), published on 21 December 2011) are based on the expectation that Brent oil price averages around USD105 per barrel for 2012 and 2013 (in line with the futures prices when we made the forecasts).

We rely on the futures price of oil for our forecasts as we have found it very difficult to model oil prices correctly. Most econometric models are not able to effectively capture the differences in response of growth and inflation to an oil price shock depending upon whether it's an emerging market economy or a developed country or if the shock is demand or supply –driven.

Keeping all this in mind, we still try to do a quick scenario analysis here to get a broad picture of which countries will suffer or benefit most from oil price rises/declines. The scenarios include: the baseline scenario of oil at USD105 per barrel, an oil price drop to USD65 per barrel (average of the period 2000-2005), an oil price spike to USD150 per barrel.

Baseline scenario: The baseline scenario of oil prices staying in the USD100-110 per barrel range comes from the continued uncertainty that grips the near-term global economic outlook. While the Eurozone sovereign crisis and continued austerity

in the developed world imply sluggish western world demand for oil, supply concerns persist.

In addition, it is in the interest of major oil producers to have oil prices close to these levels. In comparison with other commodity producers, oil suppliers have considerable influence over market prices and their goals and interests must form part of the oil price outlook.

For Saudi Arabia and the other large net oil exporters the optimal price is not necessarily the highest price achievable. In part this reflects their concern that any additional gain in prices would be short-lived if it pushed the developed world back into recession. As well as concerns over demand destruction, they are also aware that there is a high risk of accelerating the development of alternative energy sources and higher cost unconventional oil, undermining the long term value of their hydrocarbon assets. Indeed, the pivotal role that oil earnings play in the dynamics of both the fiscal and current accounts of oil producers (like consumers on the other side of the trade) means that price stability is a key policy imperative.

The level at which the oil producers are seeking to hold prices stable, however, has risen sharply and is unlikely to reverse. In Saudi Arabia, for example, the sharp rise in oil prices over the past decade has been mirrored by an unprecedented

run up in public spending and capital cost inflation in the major oil and gas and infrastructure projects, which increased three-fold in dollar terms between 2004 and 2011. With the increase in public outlays funded only by oil earnings, the minimum oil price required to meet budget demands has risen sharply.

In Saudi Arabia's case, the fiscal "breakeven" price has risen from around USD25 per barrel in 2004 to around USD90 per barrel today (the equivalent breakeven price for Russia is now seen to be USD115 per barrel). Given the scale of the spending programmes that Saudi Arabia and others have laid out, we expect to see the breakeven price to pick up further in the years ahead. (We also note comments by Saudi oil minister Ali al-Naimi that Saudi hopes to stabilise the oil price at around USD100 per barrel.)

This measure does not mean that oil prices will never fall below the oil producers' breakeven levels. Not only are OPEC's power limited, but given the scale of the surpluses oil producers have run in previous years and the strong asset positions they have been able to build, they are able to cope with a short-lived drop in earnings. Their structural reliance on higher oil prices does strongly suggest, however, that they will likely adjust supply to keep prices above their breakeven levels over the cycle as a whole.

Oil at USD50 per barrel: The trend in oil prices is clearly up, but in early 2009, the price of oil did fall to a low of USD37 per barrel briefly before OPEC supply cuts saw prices retrace some lost ground. We suspect that it would take another crisis to cause prices to drop dramatically. The most likely cause would be a disorderly denouement to the eurozone sovereign debt crisis which results in the financial system seizing up again, pulling down emerging market growth rates as well, similar to what was seen in 2009.

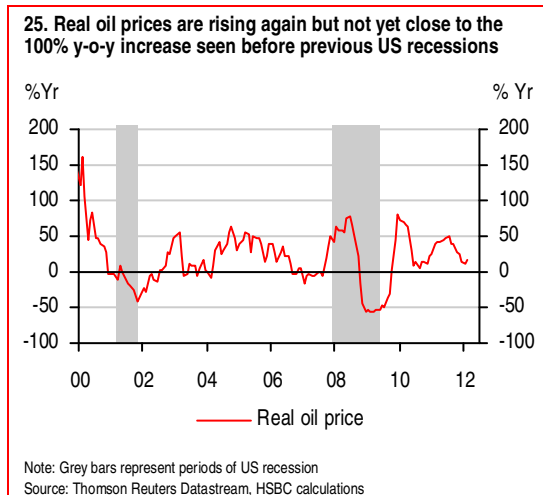
The probability of this scenario materialising remains small although non-negligible primarily because of two factors. First, central banks around the world are more alert to signs of crisis than they were in the immediate aftermath of the Lehman Brothers bankruptcy and have already put in place several firewalls to avoid another seizure of markets. Second, as outlined above, the response from OPEC producers is likely to be swifter to ensure that prices do not fall off the cliff.

Oil at USD150 per barrel: A bigger risk really comes from the possibility of oil prices moving sharply higher and staying there. This would most probably reflect a loss in supply from either conflict in the Middle East or disruptions related to natural disasters. It might be the case that at least for the next few years OPEC (essentially Saudi) will have enough spare capacity to increase supply if needed in response to moderate disruptions to supply.

At present however, the focus clearly is on the situation evolving in Iran. Tensions between Iran and the west are not a new development but the rhetoric has hardened recently on both sides. While we have no view on the probability of conflict taking place in the Gulf, the consequences – at least in broad terms – are easy to gauge. More than a fifth of the world's daily oil production passes through the strait of Hormuz, including 60% of Asia's daily energy imports. Any material threat to the smooth flow of those supplies would put prices under significant upward pressure. Actual disruption to Gulf shipping traffic as a consequence of actual conflict would drive prices through the record USD150 per barrel level seen at the peak of the 2008 boom.

Historically, a 100% y-o-y rise in the real price of oil has managed to push the US economy back into recession. This would relate to a surge in the price of oil to around USD210-220 per barrel, which is still some way off from current levels but

would not be inconceivable if worries related to Iran did materialise. At the same time, we would suspect that with oil prices already high it might take a smaller rise in the real oil price to push the US economy back into recession.



The results of our scenario analysis are broadly in line with our expectations, an oil price rise have a much larger impact on inflation in the developing economies while for developed countries, it is clearly growth that sees the larger hit. With real growth already very sluggish in most developed countries, the hit to growth takes these economies dangerously close to recession territory over the next two years. Eg for the UK, we are forecasting a very anaemic 0.3% economic growth over 2012, so even if the oil price surge shaves off only 0.3ppts, this would push the economy into recession territory.

Our analysis does produce some interesting results as well. It takes a much larger drop in oil prices to produce a similar impact on growth and inflation as a more modest oil price rise, lending support to the argument that the oil price moves in either direction have asymmetric shocks. This is important as it implies that the negative impact of any rise in oil prices can only be offset by an even larger decline in the price of oil in the absence of support from monetary and fiscal policy.

26. Oil at USD150

	GDP		Inflation	
	2012	2013	2012	2013
Argentina	-0.3	-1.3	0.7	1.3
Brazil	-0.2	-0.7	0.4	0.9
Chile	-0.5	-1.9	1.8	2.1
Mexico	-0.5	-1.3	0.9	1.3
Czech Republic	-1.3	-2.5	1.5	1.2
Hungary	-1.1	-3.5	1.0	1.7
Poland	-1.0	-2.1	1.2	1.8
Romania	-0.6	-2.1	2.4	2.9
Russia	0.5	1.0	0.4	0.9
Turkey	-0.7	-2.8	1.2	2.2
South Africa	-0.5	-1.4	1.2	1.9
China	-0.4	-1.6	0.8	1.9
India	-0.6	-1.9	1.9	1.9
Hong Kong	-0.5	-2.3	0.2	0.7
Indonesia	-0.5	-2.3	0.9	1.5
Malaysia	-0.4	-2.0	1.2	1.6
Philippines	-0.7	-2.1	1.4	1.7
Singapore	-0.9	-3.5	1.0	1.3
Korea	-0.5	-1.6	0.6	0.5
Taiwan	-0.3	-0.9	0.5	0.5
Thailand	-0.6	-2.1	1.2	1.7
US	-0.3	-1.3	1.2	1.0
Canada	-0.1	-0.2	0.4	0.6
Japan	-0.1	-0.7	0.5	0.6
Eurozone	-0.5	-1.0	0.7	1.0
Germany	-0.4	-1.1	1.0	1.1
France	-0.5	0.0	1.0	1.0
Italy	-0.6	-0.8	0.5	0.9
Spain	-0.6	-0.3	0.6	1.0
UK*	-0.2	-0.8	1.0	0.3
Norway	0.4	0.0	0.1	1.2
Sweden	-0.4	-0.4	0.2	0.8
Switzerland	-0.3	-1.7	0.7	0.5
Australia	-0.1	-0.4	0.3	1.0

Note: Assumption is that oil touches USD150 per barrel in Q2 2012 and stays there

*UK, inflation is RPIX

Source: OEF model, HSBC calculations

27. Oil at USD50

	GDP		Inflation	
	2012	2013	2012	2013
Argentina	0.3	1.1	-0.9	-1.6
Brazil	0.2	0.7	-0.6	-1.3
Chile	0.7	2.2	-2.3	-2.6
Mexico	0.7	1.9	-1.5	-1.9
Czech Republic	0.8	1.8	-2.5	-3.0
Hungary	1.0	2.3	-1.6	-2.0
Poland	1.0	1.6	-1.9	-2.5
Romania	0.7	2.1	-3.7	-2.9
Russia	-1.8	-4.1	-0.5	-1.5
Turkey	0.9	1.7	-2.3	-4.6
UAE	1.0	3.2	-1.1	-2.7
South Africa	0.6	1.5	-1.6	-3.9
China	0.2	1.0	-1.3	-2.5
India	0.9	2.6	-2.8	-2.7
Hong Kong	0.5	2.1	-0.2	-0.4
Indonesia	0.6	1.9	-1.1	-1.8
Malaysia	0.6	2.1	-1.6	-2.0
Philippines	0.9	2.3	-1.8	-2.1
Singapore	1.1	3.5	-1.3	-2.9
Korea	1.0	1.6	-1.0	-0.7
Taiwan	0.7	1.2	-0.8	-1.5
Thailand	0.8	2.3	-1.6	-3.7
US	0.4	1.7	-1.6	-1.3
Canada	0.1	0.3	-0.7	-0.8
Japan	0.2	0.9	-0.7	-0.8
Eurozone	0.2	0.7	-1.3	-1.5
Germany	0.3	0.9	-1.6	-1.6
France	0.2	0.9	-1.6	-1.5
Italy	0.2	0.7	-1.0	-1.6
Spain	0.2	0.2	-1.3	-2.9
UK*	0.2	0.9	-1.3	-0.3
Norway	-0.9	-0.4	-0.2	-2.1
Sweden	0.0	0.2	-0.4	-2.6
Switzerland	0.1	1.2	-1.2	-2.2
Australia	0.1	0.5	-0.5	-1.2

Note: Assumption is that oil falls to USD50 per barrel in Q2 2012 and stays there

*UK, inflation is RPIX

Source: OEF model, HSBC calculations

Notes

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