November 2014

Low oil prices for two years - five outcomes of an $80 Brent world

Executive Summary

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In the Middle East, Iran faces the prospect of a double impact of no sanctions relief just as oil prices settle into a structurally lower range. In Iraq, low prices threaten long-term production growth but could represent an opportunity for China to further extend its influence in the region. Saudi Arabia may favour low oil prices now, but longer-term will have to balance the conflicting incentives of maintaining market share in Asia, and unwillingly providing opportunities for other producer countries in the region.

Corporates will suffer, with the largest 60 companies' cash flow falling to a deficit of US$90 billion, versus a surplus of US$70 billion at US$100 per barrel. This will postpone the positive cash flow inflection we had anticipated for many of the independents, and will exacerbate pressures on the Majors. Tight oil producers in the United States will also have to adapt, but investment and production will shift geographically rather than decline overall. Weakening oil prices are so far, not a material threat to US tight oil or the industries that surround it.

For energy importing economies in Asia Pacific, the positive impacts are stark. China pays less (in domestic currency) for its oil in 2015 than it did in 2010, when import demand was far lower. India benefits even more, in relative terms, with the cost of oil on a per barrel basis offsetting much of the fall in the value of the rupee in recent years.

Two years of Brent at $80 per barrel would represent a significant boost to the global economy, but it would also accelerate the commodity cycle. The final consequence of a period of $80 per barrel Brent is that it would be followed by a sharp recovery in oil prices. Rewards will be there for those who have been able to weather the storm.

Introduction - oil prices shrug off geopolitical concerns

Late 2014 has seen another remarkable development in a dramatic year for global energy markets. Oil prices fell precipitously, with Brent dropping from a high of $116 per barrel in June, to lows of $83 per barrel in mid-October. Oil prices staged a volatile recovery through the second half of the month, but have since begun to fall once more. At the time of writing, Brent has sits at $80 per barrel, a level last seen more than four years ago. Moves in West Texas Intermediate (WTI) prices have been similarly dramatic, with this marker dropping below $75 per barrel in mid-November.

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This fall in the price of oil is especially notable because it has occurred against a backdrop of highly elevated geopolitical tensions. During 2014, ongoing troubles between Russia and Ukraine have spilled over into open conflict which shows little sign of abating. As a result, relations between Russia and the West have slipped into a mode which is more than reminiscent of the Cold War. The Islamic State (IS) has emerged, seemingly from nowhere, deepening sectarian bloodshed in the Middle East. The existence of Iraq and Syria as sovereign states has been threatened, and the prospect of a third Gulf War in 25 years has been raised.

Ignoring this period of chronic global risk, the oil market seems concerned only with fundamentals. Since 2011, the impact of the unconventional gas and tight oil booms in the United States has been increasingly felt at the global level. In June and September of 2014, the United States produced more liquids (including NGLs), than Saudi Arabia. As production has grown up to this level, its impact on price has been offset by a period of unplanned supply outages elsewhere, largely as a result of instability and conflict in the Middle East. However, August 2014 saw a resumption of crude exports from Libya (despite the ongoing civil war) adding a surge of light oil supply into the market just as seasonal demand was weakening.

On top of this growth in supply, demand has been weak. The Eurozone is flirting with recession once more, and the growth of China’s economy – and energy demand – continues to slow. In Japan, ‘Abenomics’ appears to be failing and the country has once again slipped into recession. Of the world’s largest economies, only the US is enjoying (relatively) robust growth at 2.0% for 2014. This recovery has helped allow the Federal Reserve (FED) to end its quantitative easing (QE) bond-buying programme, confident that the economy can stand on its own, five years after the Great Recession.

A steady decline in Brent prices, driven by the above combination of weak demand and robust supply, accelerated at the start of October, when Saudi Arabia reduced the premiums it charges on its oil exports to Asian consumers, in order to defend its share of the market. Markets were further spooked by a sharp sell-off in equities, likely in response to the imminent end of QE4. In early November, Saudi Arabia adjusted down its premium to US consumers and raised them for Asian consumers, which caused concern that the country was in fact targeting US tight oil supply through lower prices.

Geopolitical concerns may have been brushed aside in recent weeks, but they are as pertinent and dangerous as ever. In fact, they take on a new dimension in a low oil price environment, as do the vagaries of the world economy, and the rapidly evolving complexion of global oil production. Our H2 2014 forecast expects oil prices to stabilise and rise moderately from the current low levels next year. (For more details on our oil price forecast, please search ‘Macro Oils long-term outlook’ on the Wood Mackenzie portal). However, there is a material risk that oil prices could stay lower, for longer. Given the geopolitical, economic and market conditions in place in late 2014, a period of sustained low oil prices could have dramatic and far-reaching impacts. Here, we illustrate the likely outcomes of two years at $80 per barrel Brent / $70 per barrel WTI.

Five likely outcomes

Russia comes under pressure, but Putin is secure

As the world's largest energy exporter, Russia is particularly susceptible to fluctuations in global energy prices. Despite recent efforts to diversify the economy away from hydrocarbons, they still account for two-thirds of export revenues and half of federal government revenues. The national budget is balanced on a breakeven oil price of over US$100 per barrel. It has been suggested that next year's budget could require a breakeven as high as US$117 per barrel, depending on the exchange rate. Although Russia is particularly vulnerable to oil price fluctuations at the best of times, the timing of the current slump could not be more problematic, as EU and US sanctions in response to the Ukraine crisis begin to bite.

Sanctions have come into effect in phases – March/April in response to Russia's annexation of Crimea and July/September as a result of the downing of Malaysia Airlines MH17 by Russian-backed Ukrainian rebels and accusations that Russia had not acted to sufficiently de-escalate violence. Sanctions have so far targeted select individuals, companies and banks with asset freezes and travel bans as well as the oil sector, defence equipment and sensitive technology. The main aim has been to restrict the availability of capital to Russian entities on the international market. In response, Russia has also imposed a ban on food imports from sanction-imposing countries.

Sanctions have contributed to foreign direct investment (FDI) into Russia falling, capital outflow rising, and the rouble depreciating by 30% against the USD in 2014. Russia is expected to post GDP growth of less than 1% in 2014, the lowest since President Vladimir Putin came to office. Whilst the devaluation of the rouble has increased the competitiveness of Russian goods in the international market, a small benefit to the economy, the depreciation of the exchange rate and supply shortages have pushed up inflation. The outflow of capital and lower FDI are likewise having a negative impact on economic development by constraining investment. With the introduction of sanctions, Russia has increasingly turned towards domestic development, encouraged by the government in a wider patriotic effort. As a part of this, major industrial and infrastructure projects have been prioritised as a means of keeping the economy afloat. These include the ESPO oil pipeline, the Power of Siberia gas pipeline, infrastructure for the FIFA World Cup and the petrochemical cluster projects. A massive rearmament programme, reportedly valued at US$700 billion, has also been launched.

Combine this environment with a sustained low oil price and Russian government finances could come under pressure. Although the government has announced that it could sustain itself on an oil price of US$60-70 per barrel for a few years, we are sceptical of the feasibility of this, especially if Russian company borrowing in the international capital markets remains constrained. Assuming the rouble remains at its current rate (46 per US$ at the time of writing), Russia's economy could contract by up to 2.5% in 2015, should Brent prices average at $80 per barrel for the year. A sustained drop in oil prices would require the Russian government to dip into its National Wealth Fund and Reserve Fund. Government officials have already announced provisions for this. At the start of 2014, the balance of the National Wealth Fund was approaching US$90 billion and at time of writing the Reserve Fund was reportedly worth over US$70 billion. Funds however, are already being used to support sanctioned companies, and the National Wealth Fund plays a key role in supporting the Russian pension system and other social spending. This puts at risk demand-side efficiency improvements, modernisation projects, major infrastructure and industrial projects and social spending. However, Vladimir Putin's role as President is likely to remain secure. Despite the economic slump and turmoil in Ukraine this year, Putin's popularity at home is soaring and it would likely take serious hardship in Russia for this to change.

The geopolitical landscape of the Middle East becomes more complex

The geopolitical landscape of the Middle East has been redrawn enormously through 2014, and a period of $80 Brent will only serve to complicate this picture further. Evolving from the remnants of Al-Qaeda in Iraq, and jihadi rebels fighting Bashar Al-Assad's regime in Syria, the Islamic State (IS) has become the foremost threat to regional security with astonishing rapidity. IS now controls a broad swathe of territory in northern Iraq and eastern Syria, and in June declared a new Caliphate which explicitly rejected national boundaries created by the Sykes-Picot agreement in the wake of WW1. The emergence of IS has recalled the US military to Iraq (though, at the time of writing, no ground troops have been deployed) and given every national, political and religious faction in the region a common enemy.

Iran

As a result of the sanctions imposed upon it, Iranian oil exports have been cut but 1 million bpd since 2012. The election of President Hassan Rouhani in 2013 has seen Iran take a more conciliatory approach to the West over its nuclear programme, and it is currently negotiating via the Geneva interim agreement for a lifting of the sanctions to allow it to participate more freely in international oil markets. In IS, Iran has seen a further opportunity to come in from the cold. However, despite the change in tone since 2013 and the arrival of the common enemy in IS, Iran remains toxic, and its long-term success anathema to Israel, Saudi Arabia and most of the US right wing.

Prior to the conclusion of the current round of the Geneva negotiations on November 24th, our assumption was the sanctions would remain in place through 2015. A low oil price environment is unlikely to have directly shaped the negotiations, but has certainly not strengthened Iran's hand. Tehran can no longer offer the bargaining chip of being able to restore 1 mb/d of crude oil exports into a tight oil market, and it also now faces the prospect of a double impact of no sanctions relief just as oil prices settle into a structurally lower range. Iran's unfettered access to markets will not be restored, and it will also be directly hurt by lower revenues on the barrels that it is still able to sell, to countries like China and India.

Iranian press reports state that a price of $80 per barrel for the rest of 2014 implies a budget shortfall of only $1-2 billion dollars. Future budgets will have to be cut however, and a price level of $75 per barrel has already been mooted for 2015, from $100 per barrel this year. At this price level, only a return to pre-sanction export rates would be enough to prevent a sharp fall in government revenues. One outcome may be an acceleration of subsidy reform. This has been ongoing since 2010, with only moderate success. Hassan Rouhani's administration most recently raised subsidised gasoline prices by 75% in April 2014, and may be forced to take similar action again should low prices persist. But subsidy reform is unpopular, and against the background of failed nuclear negotiations, may be difficult to achieve without risking some level of social unrest.

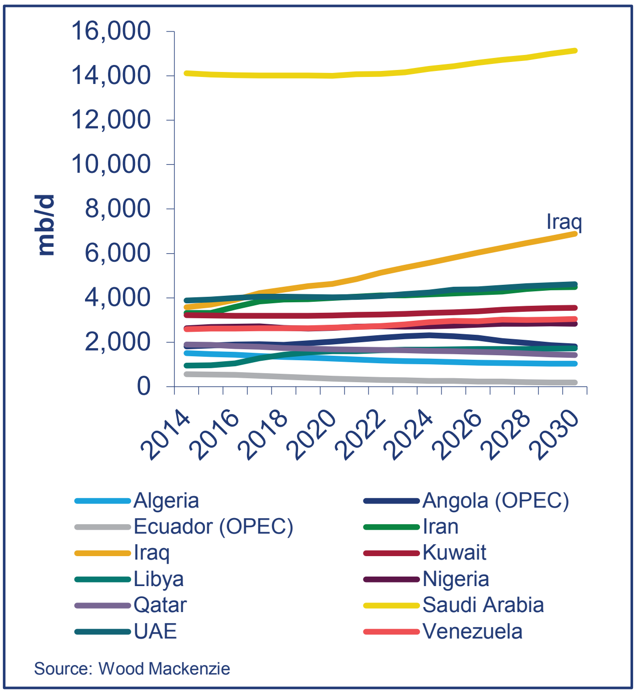
Iraq

Our base case view shows Iraqi oil production growing from 2 million b/d, to nearly 7 million b/d in 2030, with most of this new volume coming after 2020. The vast majority of this production growth is in the south of Iraq, in Shia-dominated areas, with very little production in IS-controlled areas in the north and west of the country. As a result, the breakup of Iraq in to three territories (a Kurdish northeast, Shia south and IS-controlled northwest/centre) is actually less of a risk to long-term oil production than two years of Brent at $80 per barrel.

Iraq's fiscal breakeven is high, at $109 per barrel (IMF forecast, vs. Saudi Arabia at $86 per barrel), but the government is determined to rebuild oil production and will not cut output to defend prices. The majors operating in Iraq are tied to production targets by contractual obligation, but few are making substantial returns, even with Brent at $100 per barrel. A period of low oil prices will further reduce the profitability of operating in Iraq and will lead to a re-evaluation of the country as a target for future investment. Without foreign investment, Iraq has no chance of reaching 7 million b/d in 2030. But even slowing production growth, combined with a sustained drop in oil prices, represents a serious threat to the pace of economic expansion and the long-term recovery of the country from the impacts of war.

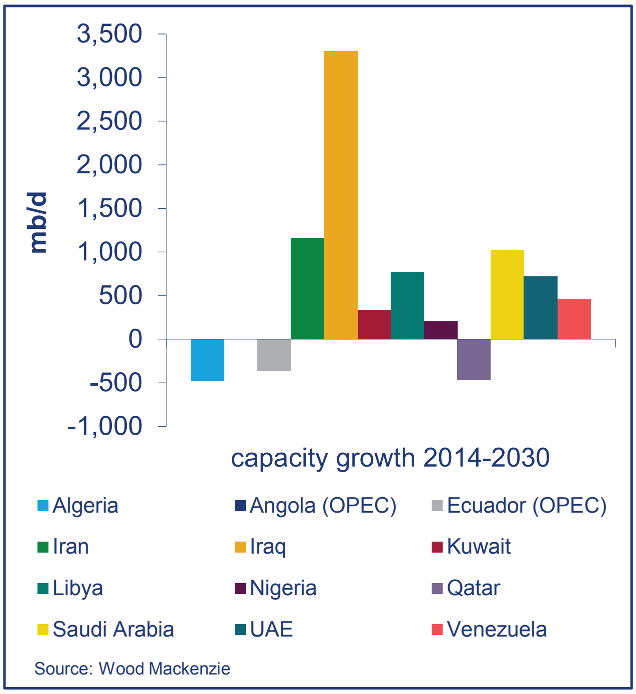
At the same time, Iraqi oil is fundamental to the market over the long term. Hence, any opportunity left by the majors will be filled by others, most likely Asian NOCs, who will welcome the opportunity to secure supply for rapidly-growing demand. Iraq meanwhile, will welcome the opportunity to gain market share in Asia. The principal risk with this scenario is how long Iraq can withstand oil prices significantly lower than breakeven costs. Again, the answer may lie in Asia. By providing soft loans or other financial assistance, China could stabilise Iraq's fiscal position, minimising the risk of political turmoil. Low oil prices could therefore be a welcome opportunity for China to extend its influence in the Middle East.

OPEC crude oil production capacity 2014 - 2030



Source: Wood Mackenzie

OPEC crude oil production capacity growth 2014 - 2030



Source: Wood Mackenzie

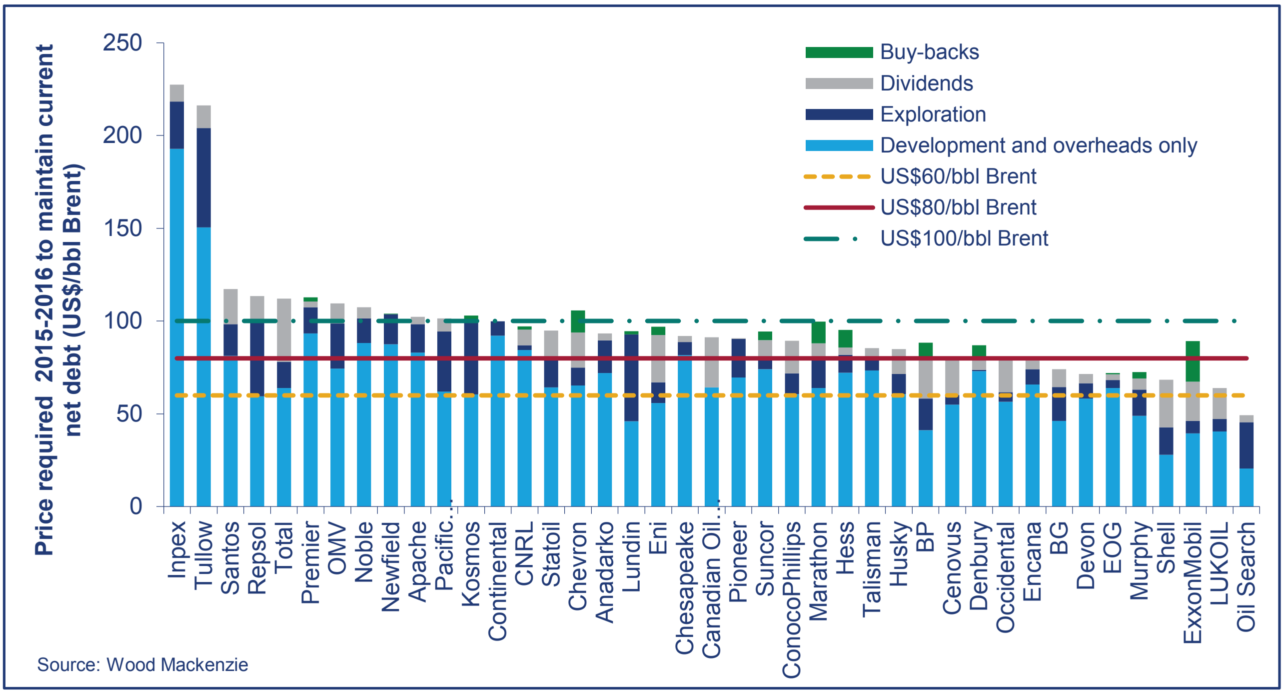
Saudi Arabia

In recent weeks, Saudi Arabia has adjusted its prices between regions to which it exports, indicating that it is, for now, more interested in retaining market share than maintaining a target price for a barrel of oil. Saudi Arabia's relatively low fiscal breakeven and substantial cash reserves of over US$ 800 billion indicate that it can withstand a period of low oil prices for some time, and certainly for longer than many other oil exporters. However this does not validate the numerous conspiracy theories that have begun to circulate in recent weeks. Saudi Arabia may be unwilling to cut production now, but it may want to in the future. The change in thinking is likely to occur when the negative impacts on other Middle Eastern producers start to imply negative impacts on Saudi Arabia itself. As noted above, a strategy of using low prices to maintain Saudi Arabia's share of high demand growth markets in Asia could backfire, leaving an Iraq with an enhanced role in China. Clearly, Saudi Arabia will want to prevent this scenario from occurring, and so will have to balance the conflicting incentives of maintaining market share for itself, and unwillingly providing opportunities for other producer countries in the region.

Corporates will be forced to adapt…

Collapsing oil prices have triggered a sell-off in oil and gas equities. US$630 billion removed from the market value of largest 60 International oil companies. The North Americans in particular have been hit hard, with unconventionals being de-rated on concerns over funding capacity, but international explorers developing large-scale projects are also highly exposed.

Brent price required to retain current net debt levels 2015 - 2016



Source: Wood Mackenzie

For further analysis on the corporate impact of low oil prices, please search for 'Oil prices; company sensitivities' on the Wood Mackenzie portal.

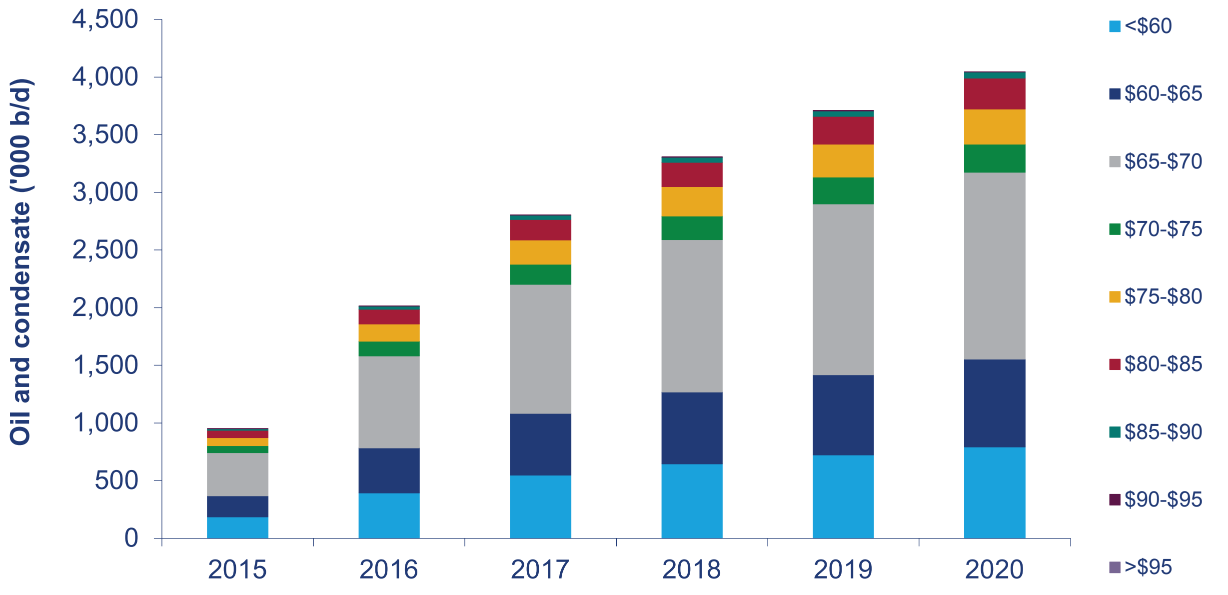
For many operators, cash flow will be at least as important as anticipated hurdle rates in the near-term. In total, US$80 per barrel Brent in 2015/16 would reduce the largest 60 companies' cash flow to a deficit of US$90 billion, versus a surplus of US$70 billion at US$100 per barrel (net US$160 billion). Falling cash flow will postpone the positive cash flow inflection we had anticipated for many of the independents, and would exacerbate the pressures on the Majors, some of which are already well advanced in wide-reaching capital discipline programmes.

Corporate strategies will adapt to the lower oil price environment. The first reaction will be a rapid pull-back in discretionary spend (exploration and shareholder distributions), and even greater scrutiny of project economics. If companies begin to believe a lower oil price environment is prolonged, internal planning assumptions are likely to be revised, making project sanctions harder. Pressure will be applied back on the service sector to lower input costs, but a period of increased uncertainty would be likely. De-risking through JVs, and asset sales could drive down asset valuations in the M&A market, but relatively few countercyclical buyers would be appropriately positioned to take advantage. The lowest-cost and least highly geared producers will fare better.

…but US tight oil production growth is resilient

US unconventionals, particularly tight oil, have recently been a favourite for investors seeking returns in an oil market characterised by high costs. The US enjoys low above ground risk, and holds the manufacturing model in tight oil and shale gas. For companies with short-term financial pressures (e.g. quarterly reporting), this combination is very attractive. In recent years, the energy industry has become a virtuous circle that is feeding on itself, with increasing confidence in the model, and the accelerating pull back in investment to the US hyper-stimulating the market. In turn, the US as a whole has become highly dependent on the multiplicative investment in upstream feeding down into petrochemicals, services and beyond. Both directly and now indirectly, the tight oil boom is having an enormously positive impact on the US economy.

US tight oil new development volumes by breakeven ($WTI)



Source: Wood Mackenzie

Break-even costs vary, but current production is economic well below current oil prices and not likely to be shut in except for a few unusual cases. Our latest analysis indicates that most US tight oil areas are economic at West Texas Intermediate (WTI) prices above $70 per barrel. At $70 per barrel, if prolonged for the year, the sector loses 150,000 b/d of production growth in 2015, with the rate of new development slowing by as much as 1 m b/d in 2020. (For more details please search 'Oil price: how low can it go?' on the Wood Mackenzie portal).

Yet this analysis is based on costs at today's levels, and these could shift lower through time. In fact, the industry as a whole has been very successful in finding new efficiencies, applying new technologies, increasing recovery rates and pushing down cost. Arguably, this approach characterises the entire unconventional oil and gas industry in the United States. As long as tight oil producers keep pushing the envelope on technology and cost, the tight oil boom will keep going.

Furthermore, tight oil players are likely to change their behaviour in a structurally lower oil price environment. Higher-margin plays will be favoured by those with the flexibility to tweak their portfolios. Investment – and production – will move geographically, rather than shrink overall. Smaller companies with limited acreage and fewer opportunities to diversify will choose to keep producing even in the face of falling prices. This strategy of chasing the market down, in order to maximise cashflow in the hope of an imminent recovery, means sustained production for longer. However it is high-risk, and certainly implies casualties at some point in the future. However, weakening oil prices are so far, not a material threat to US tight oil or the industries that surround it.

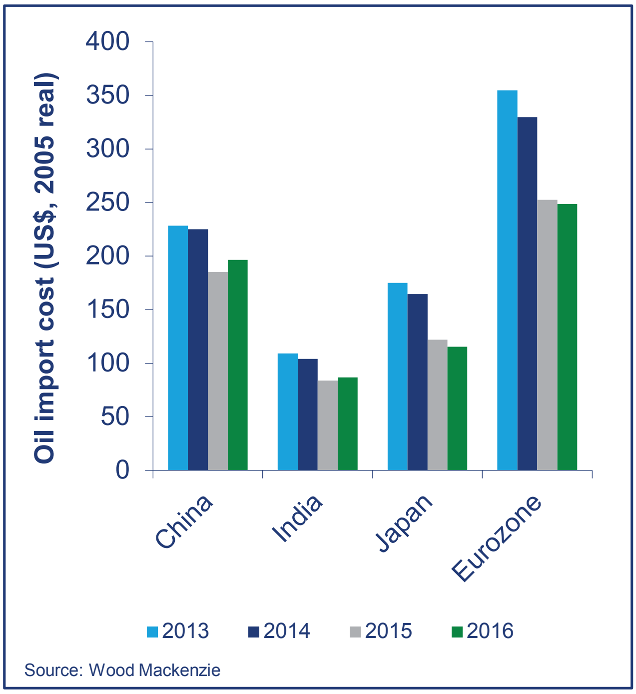
Energy importers will cheer

Europe, as well as the key economies of Asia Pacific, are dependent on imported energy. For these markets, a structurally lower oil price is beneficial. Oil costs underlie many others, either directly through the transport of goods and services, or indirectly through the pricing of other commodities such as natural gas. As such, a falling oil price tends to filter through the economy as a whole, rather than remain targeted to one sector or sub-sector.

Despite the commonality of import dependence, the economies of Europe and Asia are very different. The eurozone and Japan are characterised by weak economic and energy demand growth. China and India remain key global drivers of energy consumption and focal points for current and future economic expansion. But for all, a lower oil price now is likely to have additional beneficial effects, beyond just the generalised lowering of costs. The eurozone is once more flirting with recession, as is Japan, despite the efforts of 'Abenomics.' Though still robust in relative terms, China's economic growth has slowed and could slow further. India is grappling with broad-based economic reform, and has cut energy subsidies, raising consumer prices for diesel. The end of QE is placing additional strain on emerging economies, with the implication of higher interest rates in the US devaluing many currencies versus the dollar.

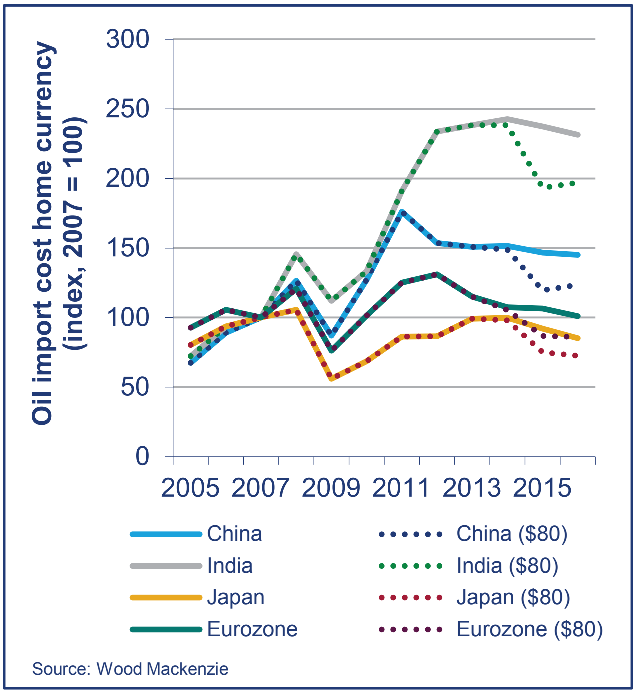
In Japan and Europe, Brent at $80 per barrel through 2015 and 2016 implies a structural fall in the total cost of imported oil, by US$50 billion (Japan) and US$100 billion (eurozone), relative to 2013. For both the yen and the euro we expect some weakening versus the dollar through 2016. The falling oil price offsets this and in real terms both Japan and Europe will see oil costs decline to where they were in 2009 / 2010, the last time oil was approximately $80 per barrel.

Oil import cost, US dollars



Source: Wood Mackenzie

Oil import cost index, domestic currency



Source: Wood Mackenzie

2013 historic; 2014 YTD Brent spot; 2015 & 2016 Brent US$80 (real)

In India and China, import volumes will continue to rise year on year, so the impact of the falling price is much less pronounced: US$45 billion (China) and US$25 billion (India). But the impact on costs paid in domestic currency are stark. Lowered oil prices mean China pays less (in domestic currency) for its oil in 2015 than it did in 2010, when Brent prices averaged $87 per barrel, and import demand was far lower. India benefits even more, in relative terms, with the cost of oil on a per barrel basis offsetting much of the fall in the value of the rupee in recent years.

Such falls in costs now are likely to stimulate these economies, and provide support for growth at a time when concerns are elevated around issues such as China's housing market, India's ability to withstand a return to 'normal' interest rates, and the eurozone and Japanese economies in general. A period of low oil prices is likely the fillip these markets need, and longer-term, will help to ensure that they remain centres of oil demand growth, and a sink for the exports of oil-producing countries.

Conclusion – broad economic benefits and an accelerated commodity cycle

Wood Mackenzie's macroeconomic analysis indicates China will be responsible for 23% of global growth between 2014 and 2020; support in the form of lower oil prices has obvious implications for the world economy overall. The United States is equally important, also contributing 23% to aggregate economic growth, despite expanding at less than half of the rate of China over the same period. In the US, weakening oil prices are rapidly passed through to gasoline prices at the pump. However consumers do not appear to view what they save from lower gasoline prices as free cash to spend on other goods. A sustained period of low oil prices would certainly be net positive for the US economy (providing upstream activity is not significantly reduced), though the direct impact would be muted in comparison to China.

However low oil prices will have indirect impacts via a lowering of inflationary pressure, with these benefits felt both within and beyond the United States. Lower risk of inflation means a reduced need to raise interest rates. This would minimise the risk of sharp reversals in asset prices, and would act as a further boost to developing market economies.

Two years of Brent at $80 per barrel would therefore represent a boost to the global economy. But it would also be enough to delay or cancel investments in higher-cost oil production, particularly if investors believed that $80 per barrel was the ‘new normal’ and oil prices were likely to stabilise at this level for a prolonged period. Oil producing countries with fiscal breakevens at the higher end of the scale would also be at risk. Resurgent demand and delayed production growth would inevitably accelerate the commodity cycle – the final consequence of a period of $80 per barrel Brent is that it would be followed by a sharp recovery in oil prices. Rewards will be there for those who have been able to weather the storm. How energy companies position themselves through the dip, to benefit for when the uptick comes, will be critical to their success if this scenario materialises.

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