AFENA INSIGHTS

FEATURE ARTICLE

Oil: "The genie's out the barrel"

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OIL: "THE GENIE'S OUT THE BARREL"

Oil is the most important commodity globally in terms of value. It is the lifeblood of any modern economy and a very convenient dense form of energy[1].

Following more than three years of high prices and low volatility, prices have collapsed. While we never saw prices above $100/bbl as sustainable, the speed and veracity of the recent decline in prices has left most analysts and commentators perplexed and questioning some common beliefs about oil markets. Although the issues at hand are complex, we will attempt to answer some of these key questions by relooking at some of the fundamentals.

1. What is driving the current price weakness?

Explaining commodity price moves is difficult at the best of times, but fundamental trends and more importantly changes in those trends do seem to matter, although sometimes with a lag. The "*financialisation*" of commodities during the commodity super cycle has further obscured the significance of fundamental drivers.

A classical approach would look at supply and demand trends. Oil demand is simply a function of global growth. On a trend basis we would expect oil demand to be approximately 2% points below global GDP. This would equate to roughly 1 million barrels per day (1mbpd) of demand every year if the global economy grows at 3%pa. Further, the rate of growth has de-geared from global GDP over the past decade as high prices rationed demand. This rate of growth is quite unexciting relative to other commodities. The weakness in the current business cycle that is evident in various national accounts is also manifesting in the oil market with oil demand below trend, in fact barely growing in the most recent data points. However, the current demand level alone doesn't fully explain the current price drop.

What differentiates the oil market from most other commodities is the structure of the industry, particularly the presence of a cartel, the *Organisation of Petroleum Exporting*

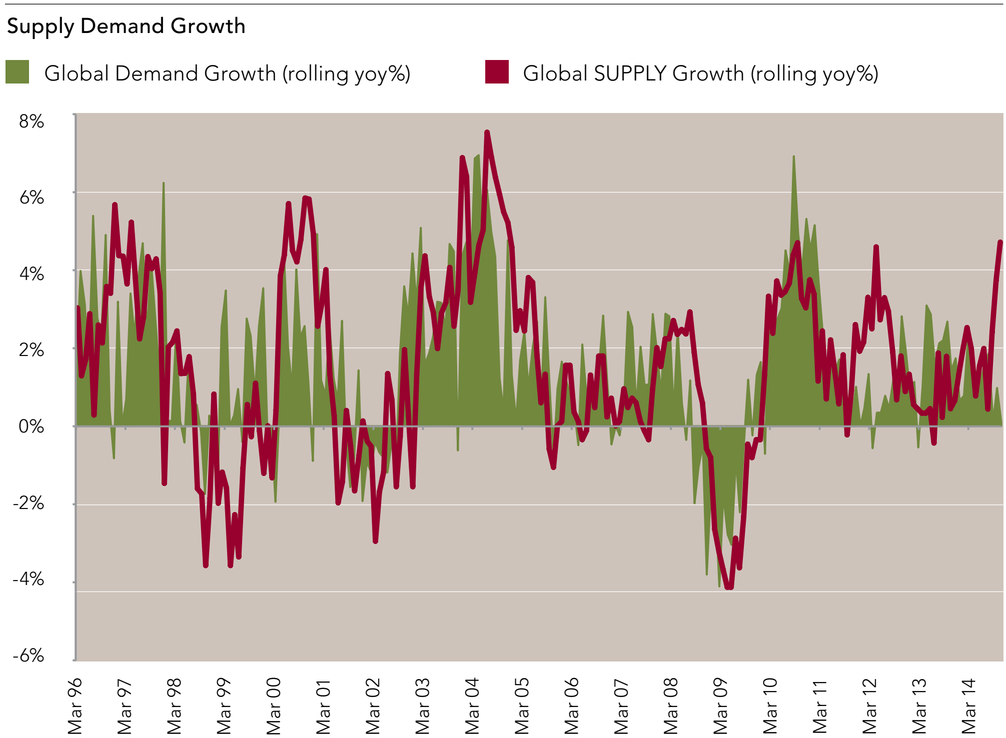
1 It is estimated that one barrel of oil contains approximately the energy equivalent of 25,000 hours of manual human labour. Even at its peak in mid-2014 this would have only equated to 5c/hour, less than 1% of the minimum wage rate in South Africa of R12.4/hour!

*Countries (OPEC)*2. OPEC was formed in 1960 as exporting countries sought to wrest control of their key resource from the hands of the "*Seven Sisters*" *(the parents of today's multi-national oil majors).*

OPEC's market share has averaged around 40% since its formation. To the extent that OPEC has been able to control oil markets since its formation it has been through coordinating production policies amongst its members to balance oil markets. Given that OPEC comprises 12 countries with different economic, social and political pressures, coordination amongst members is vital for the cartel to function effectively. Over time it seems that the most cohesion is exhibited by the *Gulf Cooperation Council (GCC)* members of OPEC, what we consider the core of OPEC. Saudi Arabia, Kuwait, UAE and Qatar account for approximately 60% of OPEC capacity. When markets loosen, these core members of OPEC are often left to do a disproportionate share of the rebalancing. In the past 15 years Saudi Arabia has held half of

2 "The mission of the Organization of the Petroleum Exporting Countries (OPEC) is to coordinate and unify the petroleum policies of its Member Countries and ensure the stabilization of oil markets in order to secure an efficient, economic and regular supply of petroleum to consumers, a steady income to producers and a fair return on capital for those investing in the petroleum industry"

FIGURE 1: GROWTH TRENDS IN GLOBAL SUPPLY AND DEMAND FOR OIL



Source: Bloomberg, Afena analysis

the spare capacity in OPEC while only enjoying a third of the production. The balance of production coming from outside of OPEC carries no responsibility for balancing the market, effectively enjoying a free ride on the back of OPEC, continuously attempting to maximise production. OPEC is therefore continuously monitoring forecasts for supply outside of OPEC as well as global demand in order to satisfy the *"Call"* on its own production.
Over the past 2 decades supply has followed demand trends as one would expect. However the recent acceleration in global supply of around 5% is counter to the slowing demand trend.

In the lead up to OPEC's 27 November 2014 meeting the oil price had fallen 30% from its peak due to an estimated oversupply of some 2mbpd. Many expected OPEC to commit to or at least intimate that some sort of production restraint was required from its members. The outcome however was a recommitment of the current production target of 30mbpd and further 40% fall in oil prices. In the ensuing carnage one would have expected OPEC members to be talking up the price; however they have given us just the opposite.

OPEC's true motives are as intriguing as they are opaque. Speculation runs from enforcing discipline on peripheral OPEC members that don't adhere to quotas, hurting political opponents such as Russia and Iran or trying to slow the development of shale oil. What is clear from the Saudi minister's statements is that they are no longer willing to shoulder the burden of balancing oil markets alone. If core OPEC members are willing to follow through on their statements it would represent a tectonic shift in oil markets, potentially spelling the end of OPEC, if not a reconstitution around its core GCC members.

MEES (Middle East Economic Survey) interview with Ali Al-Naimi

Saudi Arabian Minister of Petroleum and Mineral Resources

21 December 2014

MEES: Will we see $100/B oil again?
Ali Al-Naimi: We may not.

MEES: You said earlier today that Opec would never cut production. Can you elaborate on that?
Ali Al-Naimi: There is no such thing as never. Anything can happen. We could lose a field or many other things. But, as a policy for Opec – and I convinced Opec of this– even Mr al-Badri [Opec Secretary General] is now convinced, it is not in the interest of Opec producers to cut their production, whatever the price is.

MEES: That is now. But what about the future?
Ali Al-Naimi: It is the same.

MEES: Even if the price goes down to $40/B or $30/B?
Ali Al-Naimi: Whether it goes down to $20/B, $40/B, $50/B, $60/B, it is irrelevant.

MEES: But people are saying that Opec is irrelevant if you do not act?
Ali Al-Naimi: Opec was not established just to defend prices. Opec's charter is clear. It seeks stability of the oil market. When prices rise or fall, we try our best to get everybody together [including from outside Opec]. We tried, but there was no way. It is obvious from my previous experience that others [from outside Opec] will not cut.

2. What is the medium and long term price path?

Oil is not the only commodity currently experiencing price pressure, we have seen similar sell-offs in most other commodities for similar reasons, namely a slowdown in economic activity impacting demand, a lagged supply response to higher prices and a stronger US Dollar. In most of these markets *a third to half of producers* are making cash losses on current production! This is severe disincentive not only to future expansion but to current production as well. In the absence of a cartel, it won't be surprising to see oil behaving similarly. If that is the case then prices could fall much further as the ongoing operating costs for oil are not the major part of the *full-cycle* cost structure. Non-OPEC supply is likely to prove inelastic in the short term for various reasons: lead times on capital decisions, impact on field reserves (loss of optionality), strong balance sheets, commitments to resource owners to retain acreage, belief in higher prices in the medium term and hedged production at higher prices. Indeed OPEC may be tested at the $20-40/bbl level in the short run.

In the *medium term* the market is likely to see *rebalancing* on both the demand and supply side. From the supply side we would expect to see the price settle at a level that rewards producers for growing production to satisfy global growth, an "incentive price". The nature of oil fields also results in high natural decline rates, which can be lowered by reinvesting in the field. However, even with such reinvestment net decline rates are 3-4% pa or around 3-4mbpd. With demand of 1mbpd, the industry collectively needs to deliver projects of 4-5mbpd every year. If one assumes that OPEC maintains its share then non-OPEC must deliver at least 2mbpd every year.

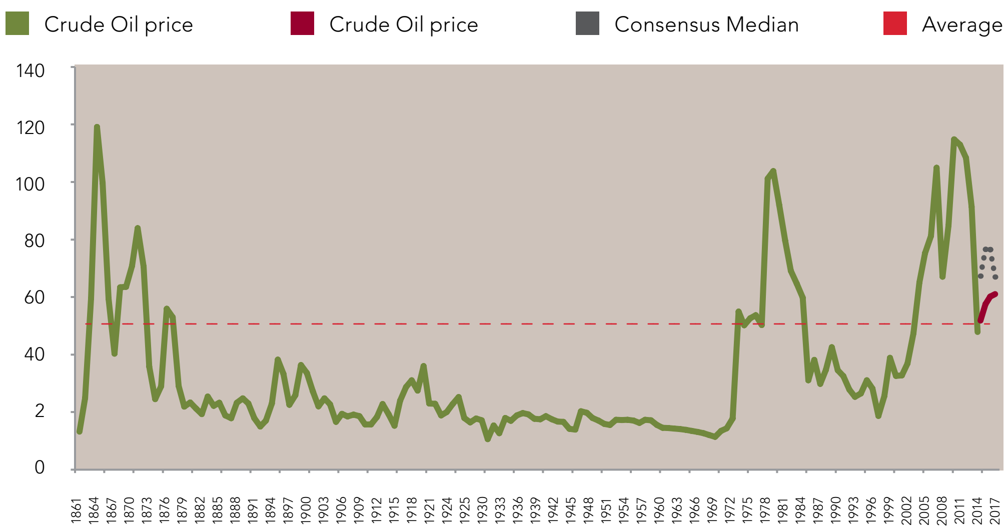
"Easy" conventional oil remains within the realm of OPEC, and oil companies outside of OPEC have been pushed to produce from non-conventional sources, which are increasingly technically challenging. Non-conventional sources include Ultra-Deepwater, Biofuels, Oil Sands, Tight (Shale) Oil, Synthetic and Artic Oil.

Shale oil has been the most promising of non-conventional sources. Not only does its economics undercut the other non-conventional sources mentioned above but it also has been able to deliver significant volumes. Productivity gains in shale oil have yet to mature, with producers still achieving double digit gains annually, we are therefore unlikely to see a material slowdown in the growth of shale oil. However with US shale oil growth peaking around 1.3mbpd, all of the required supply is unlikely to come from this source alone.

Shale oil is not unique to the US. There is a possibility of replication of the US oil boom in the Vaca Muerta in Argentina, Bazhenov in Russia as well as various sources in China. However these countries lack the infrastructure and dynamism of the US industry so cost structures will be higher and lead times to development will run into decades. Other non-conventional sources mostly require a price of $80-100/bl to make a return on capital. With the expected cuts in budgets we are likely to see adjustments in service sector costs so this range is likely to come down, perhaps structurally.

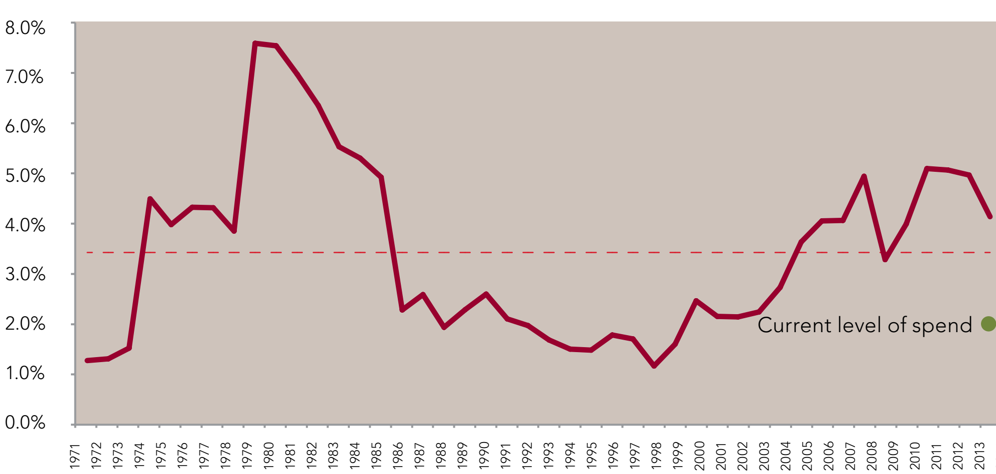
The chart on the following page (**Figure 2**) shows a *150 year history of oil prices*, with the consensus expectations and futures curve to 2018 overlaid. The average over this period is $50/bbl in 2013 real terms. Markets are expecting prices to settle 30% higher than the long term average ie $65/bbl. The shape of the forward curve, referred to as 'contango' or an upward sloping futures curve, indicates that there is currently an oversupply i.e. too much inventory.

FIGURE 2: LT REAL OIL PRICES (2013 $/BBL)



Source: BP Statistical Review of Energy 2014, Bloomberg

FIGURE 3: OIL SPEND AS A SHARE OF GLOBAL GDP



Source: BP Statistical Review of Energy 2014, IMF WEO Oct 2014, Afena Analysis

We are also likely to see some demand elasticity to lower prices. However falls in consumer prices could be dampened by governments removing subsidies or increasing taxes. This is already visible in key emerging markets like China, India and Indonesia. Further industries that have been squeezed by high oil prices historically, like airlines, are likely to use this opportunity to rebuild their margins and balance sheets, and therefore consumers are unlikely to reap all of the benefit.

The current level of spend (at spot $50/bbl) is around 2% of global GDP vs the long term median of 3.4%. If prices were to normalise from an affordability perspective it would indicate a price of around $75/bbl.

In conclusion a long term price in the range of $65-75/bbl seems reasonable. What is more certain is that following record low volatility in prices, a future without a cartel guarantees more volatility in future.

3. What are the implications for the global economy?

To the extent the fall in prices is as a result of weak demand, this would be bad for markets and is real time indicator that we are probably at the bottom of the current business cycle. However on balance we would say that supply has been the greater factor during this fall and this should therefore be positive for the global economy. The fall in prices represents a transfer of value from oil producers (exporters) to oil consumers (importers). Inherently the marginal propensity to spend is greater for oil consumers than for oil producers and such spend is likely to be more efficient. The overall impact on global growth is therefore positive, estimated to be as large as 0.7-0.8% (IMF estimate) over the next 2 years.

The fall in the oil price is a further deflationary pulse for all economies. This gives central banks more room to manoeuvre with monetary policy ie further rate cuts or delaying rate increases. This should be positive for the US and emerging markets generally. It could however be problematic for the EU and Japan which are heavily indebted, already at the zero-bound for policy rates and having to use quantitative measures support inflation expectations.

4. How should investors position themselves?

Changing interest rate expectations and increased discretionary spending power should be positive for domestic cyclical interest rate sensitive shares. The property, banking and general retail sectors have already enjoyed a rally relative to the all share index since mid-2014.

Sasol is the obvious loser from weak oil prices. At around R370/sh Sasol is implying $60-65/bbl at R11.5:$ real. This indicates some value given the break-even levels for most non-conventional sources. The near term is likely to be challenging for the company given its recent decision to proceed with a new world scale chemicals complex at Lake Charles, Louisiana for $8.1bn which could stretch the balance sheet. Sasol's unique production process is also likely to see it experience stickier costs that conventional peers and therefore greater margin compression. However, management should be commended for embarking on large cost saving programme, Project Phoenix, well before the crack in oil markets.

We see this as a rare buying opportunity, to purchase a quality company below fair value in a market that is otherwise providing few value opportunities.

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