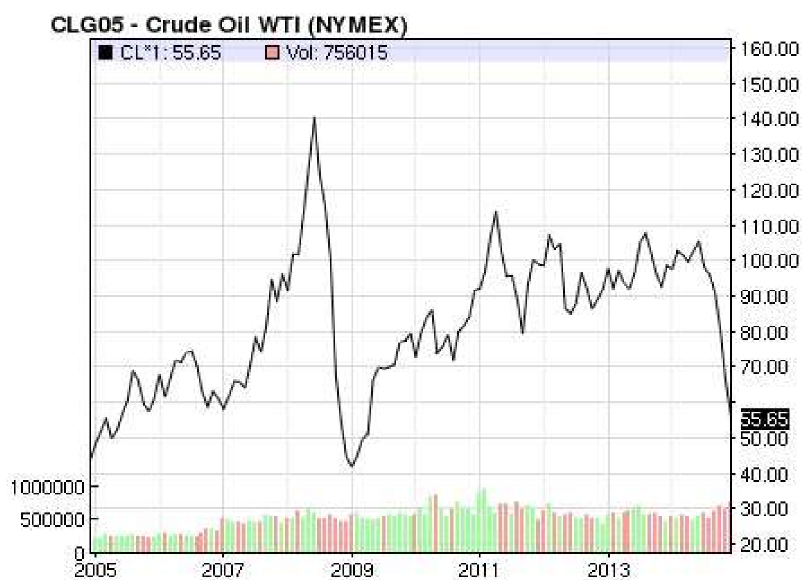
January 2015

The Unsustainability of $50 Oil

Oil prices have fallen significantly over the last few months due to a myriad of concerns. The magnitude of the current price drop has not been seen since the credit crisis of 2008/09. There are many reasons in the short term for this significant decline in price. These issues are primarily related to increases in non-OPEC supply as well as a decision by Saudi Arabia to maintain its production levels, in spite of lower oil prices. In addition, there are concerns about lower short-term demand for oil due to economic weakness in China and Europe. At Sionna, we seek to take a longer term view. We continue to believe that oil prices should trade closer to the marginal cost of production over the long term – which ranges between US$85 to US$95 per barrel. As a result, we view this current weakness as an opportunity to add to our Energy position.



Source: FactSet

Demand

Despite the apparent weakness in demand, we continue to believe that global oil demand will continue to grow over the long term. Global oil demand is highly correlated with world GDP growth. Some interesting research from Sanford Bernstein (below) looks at the relationship between oil demand growth and GDP growth over the last 35 years. The research identifies that a 1% change in GDP correlates to approximately a 1% change in oil demand. According to their data, global GDP growth of more than 2.4% is required for positive oil demand growth. In 2014, for example, the chart shows that world GDP growth

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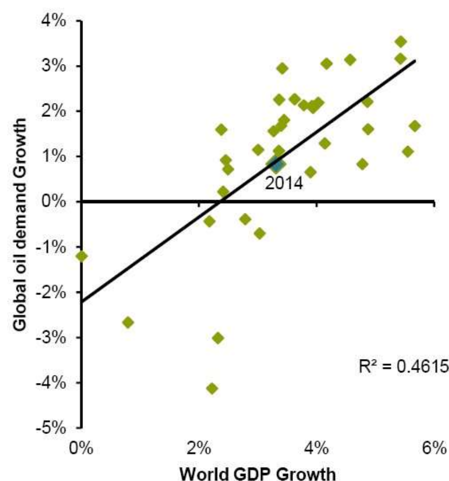
was just over 3%, which correlated to just less than 1% in global oil demand growth. Given that the current IMF estimate for GDP growth in 2015 is 3.8%, the study's data implies that oil demand growth will be slightly greater than 1%. Another factor which has not been encapsulated in this data, or any demand growth estimates, is the impact that lower oil prices will most certainly have on demand. Sanford Bernstein research estimates that each 20% drop in the price of Brent crude oil results in approximately a 1% rise in demand. Consider that, for example, a US$20 decline in the oil price year-over-year to US$80 per barrel could result in a doubling of oil demand growth (from 1% to 2%) next year.



Source: BP statistical review, IMF, Bernstein analysis and estimates

Supply

Increased supply from non-OPEC sources has caused an imbalance in the oil market and U.S. shale production has been the biggest swing supplier, with output rising from 0.5% of global production in 2008 to 3.7% today. This supply imbalance has been further exacerbated by Saudi Arabia's decision to continue to produce oil, despite weaker pricing. At oil prices currently below US$60 per barrel, non-OPEC producers are expected to cut capital expenditures significantly, a situation which has historically led to lower levels of production.

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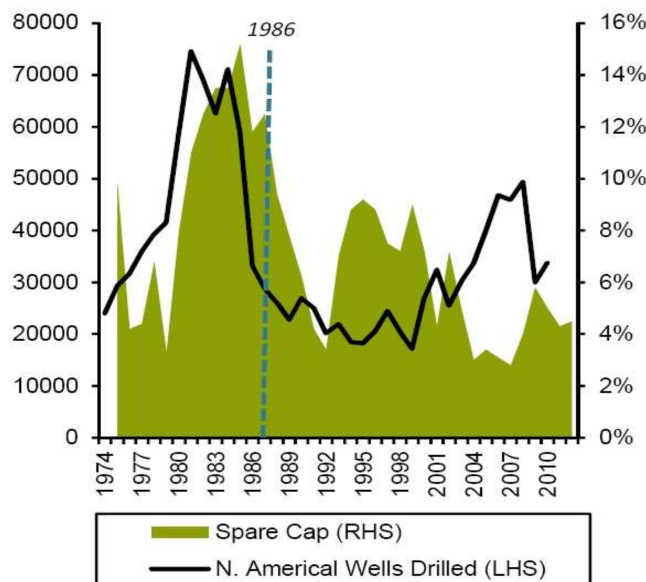
OPEC spare capacity in 1986 was close to 15% and created a large overhang on prices. Current effective spare capacity is closer to 3%



Source: EIA, BP Stat Review, Bernstein analysis

Wood Mackenzie estimates that the break-even prices for U.S. shale projects are US$65 to US$70 per barrel, which implies significant declines in investment in this environment. With that backdrop, it becomes clear that it is highly unlikely that the U.S. shale industry can maintain production if these low price levels persist. The other issue with U.S. shale projects is their high decline rates – on average, the output of shale wells decline by 60% to 70% in their first year. Without reinvestment, supply declines rapidly. Adding to U.S. supply issues are weak balance sheets from U.S. exploration and production companies. Debt levels for these companies have increased dramatically over the last decade and will limit their ability to continue to finance their drilling through further debt issuance. We therefore anticipate that capital expenditure budgets will be cut dramatically in 2015, resulting in lower levels of supply. The wild card appears to be OPEC, which supplies approximately 30% of the world's oil. Saudi Arabia's recent decision to not defend the oil price and continue its production seems to be rooted in a desire to instil more production discipline among other members of the OPEC cartel. Thus far, Saudi Arabia has been cutting production and letting other OPEC members benefit from high prices. But the Saudi's approach now seems to be changing.

As the global low-cost producer, Saudi Arabia can weather a sustained lower price better than other OPEC members. The major difference today versus previous oil downturns is that Saudi Arabia's ability to exercise control has been substantially reduced. For example, during the 1986 oil-price downturn, OPEC production continued to grow. At the time, OPEC spare (or excess) capacity was close to 15% of global supply, which enabled the cartel to influence a 50% collapse in oil prices and displace marginal U.S. producers. Although the situation today seems similar to the 1986 experience, there is a significant

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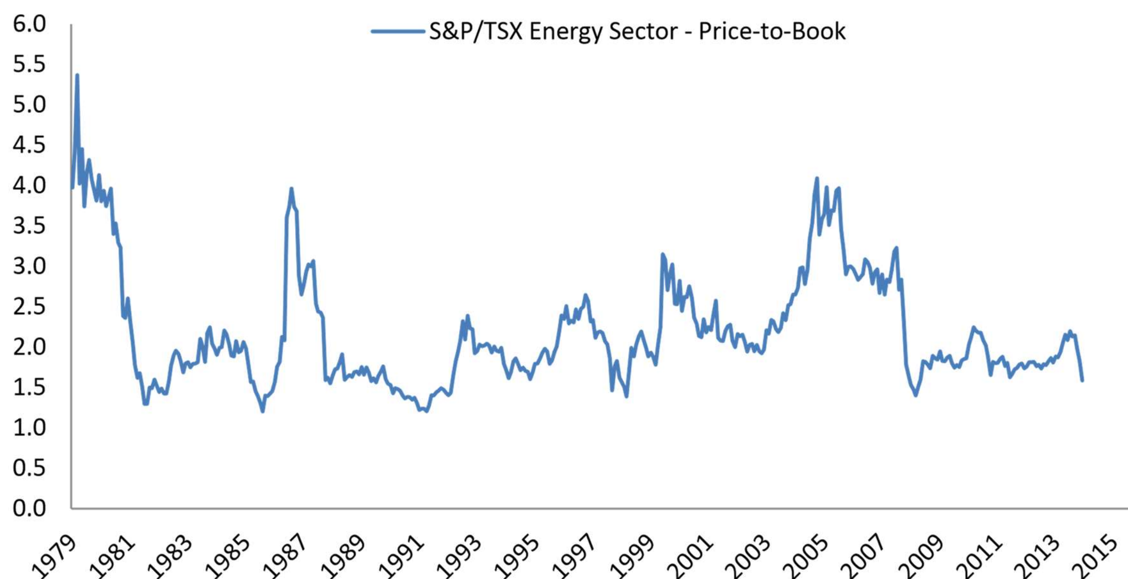
difference: OPEC's spare capacity is only at 3% of global supply. As a consequence, OPEC's ability to respond to even a small supply disruption – by controlling supply to impact the price of crude – is dramatically hindered relative to the power it had in 1986. Since Saudi Arabia no longer has the same clout and influence as it used to, we would expect to see a recovery in pricing sooner rather than later.

Valuation

Energy companies look attractive at current valuations. The magnitude of the decline in valuation is comparable to previous major downturns (1986, 1992, 1998, 2009). Data from TD Securities (see chart below) tracks the price to book value for the S&P/TSX Energy sector over the last 35 years. Now trading at less than 1.6 times book value, the sector is close to its historical lows and, we believe, currently offers attractive investment opportunities.



Source: TD Securities

Long term, we believe that energy prices need to be above US$90 per barrel in order to meet global demand. The following chart from Sanford Bernstein shows that with oil prices currently below US$60 per barrel, crude is trading well below its long-term marginal cost of production. Marginal cost is the minimum price required for the industry to sustain itself over the long term – mathematically, it equates to the cash cost of production, plus depreciation, plus the cost to replace reserves. In the long term, all commodities should trade at marginal cost. We continue to believe that this marginal cost curve is still relevant, despite the short-term volatility in oil prices.

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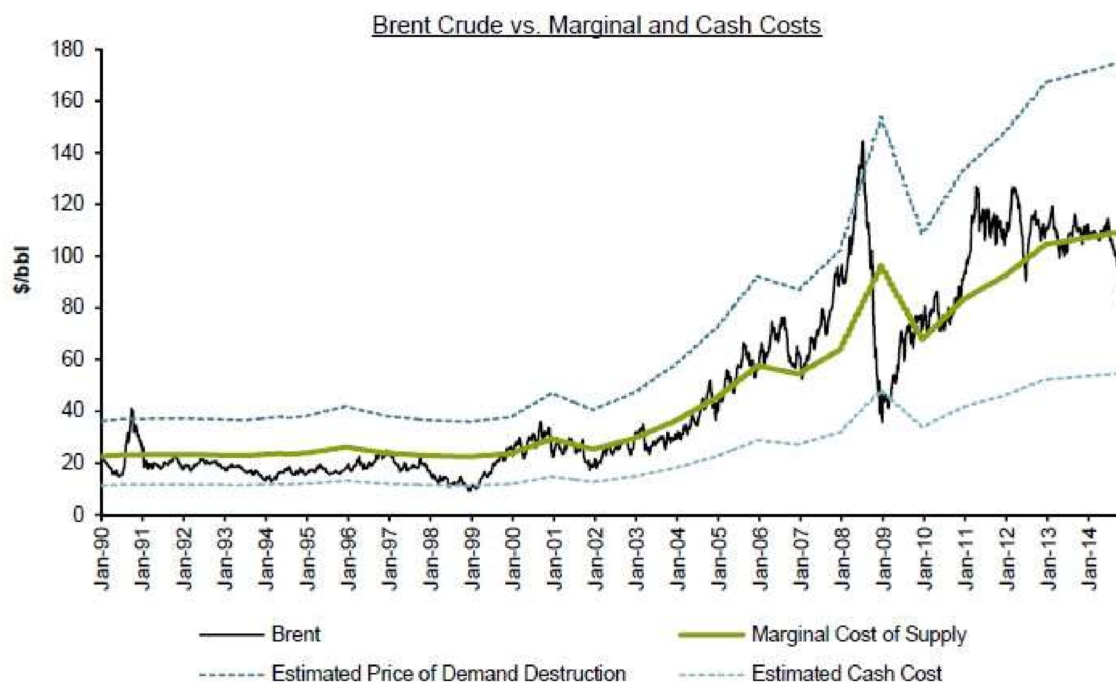
While no one knows for certain when oil prices will recover, we do know that the principles of economics will prevail over the long term.



Source: Bloomberg, FactSet, Company reports, Bernstein estimates and analysis

Typically, commodity prices will trade near their marginal cost of production – within a low band at cash cost and a high band at the point where we begin to see demand destruction. At prices below US$60 per barrel, we appear to be trading right at cash cost levels, implying limited downside from here. In the long term, we believe that demand for energy will continue to grow. Short-term supply issues will likely be corrected with capital budget cuts caused by lower pricing. On balance, we believe that oil prices will recover in the long term and that the current environment represents an attractive buying opportunity. As a result, we have been slowly adding to the sector. Given the uncertainty of the timing of the pricing recovery, we have been cautiously purchasing companies with conservative management teams, and strong balance sheets that can sustain a prolonged downturn and position our clients' portfolios to do well over the long term.

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