

Flash 4 | 2015

Cheap oil vs. cheaper renewables: what matters more?

With the substantial expansion of oil and gas production capacities over the last few years, fossil fuel prices have faced downward pressure. But could this really put a dent in the deployment of renewable energies? Thimeo Lang, Senior Portfolio Manager for the RobecoSAM Smart Energy Strategy, and Client Portfolio Manager Dominik Scheck examine the implications of low oil prices on energy efficient solutions and the renewable energy sector.

Commodity price volatility

Driven by new production techniques such as horizontal drilling – or fracking – US domestic oil production reached an average of 9.2 million barrels of crude per day in January 2015, the most since 1983,¹ representing an expansion of over 3 million barrels per day within the last 3 years. As a result, US crude oil inventories have risen sharply, reaching all-time-highs.²

OPEC's unwillingness to introduce any production cuts has resulted in a global oil glut. And following the recent agreement on Iran's nuclear program, even more oil is expected to hit the market as Iran may soon be able to resume oil exports. This could lead to an

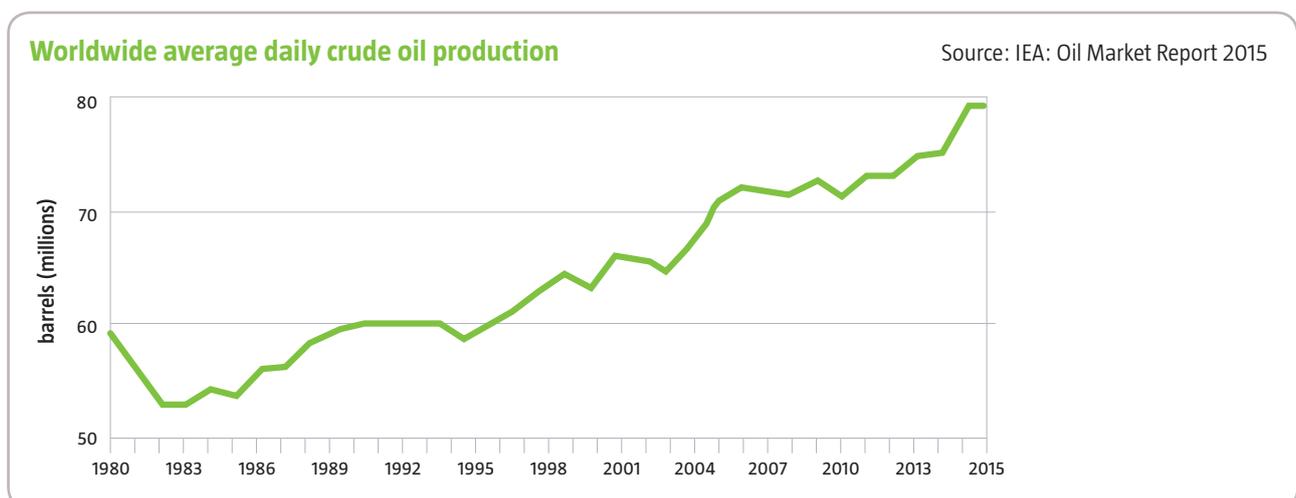
additional production increase of up to 1 million barrels per day within the next few months.

On the demand side, the outlook remains consistent with the pattern established in recent years. As a result, global demand is likely to rise by another 1 million barrels per day, mostly driven by emerging markets.

As the current oversupply has yet to work its way through the market, oil prices will likely remain within the USD 50-60 range before potentially trending higher again. In any case, as long as OPEC refuses to return to its former role as a 'price maker,' the oil price is expected to settle at a level equivalent to the production costs of the of the marginal producer, preventing the oil price from returning to triple digit levels for the foreseeable future.

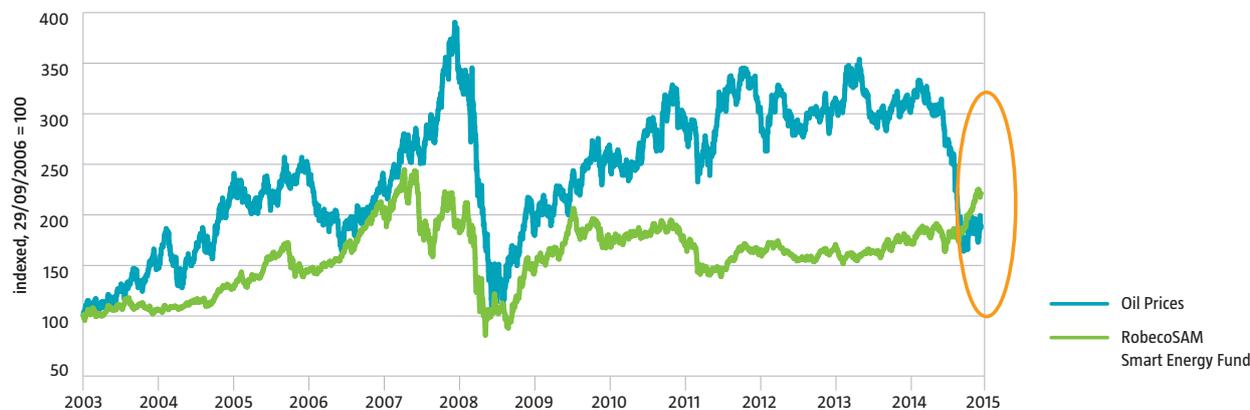
¹ Snyder, Benjamin; "U.S. oil production reaches all-time high amid depressed crude prices," *Fortune*, February, 11 2015.

² U.S. Department of Energy, *Crude Oil Total Inventory Data (excluding strategic petroleum reserves)*, 2015.



Oil prices versus RobecoSAM Smart Energy fund

Source: RobecoSAM, Bloomberg



Historical perspectives

Given the acute decline in oil prices over the past 9 months, a strong rebound may seem inconceivable to investors at the moment. Looking back through history, however, one can identify two comparable occasions in which oil prices rose substantially following a sharp drop. During 1985–1987 and 1997–1999, OPEC’s reluctance to adjust supply at a time when international demand was slackening triggered falling oil prices. At the time, the economic scenario in the US was similar to today’s environment, with healthy GDP growth rates and rising stock prices. Oil prices dropped by more than 50% in both time periods, and even though OPEC did not adjust its supply, prices rebounded by 70% and 110% respectively. Given these historical parallels, we have identified three factors that may lead to a similar outcome in the near future.

First, with current oil prices at multi-year lows, stronger than expected consumer demand may move prices in the opposite direction. As the European recovery strengthens and personal consumption in the US increases, demand for oil is expected to rise. In addition, given its growth outlook, China may seek to boost domestic demand by further investing in infrastructure projects, which in turn would drive economic growth and demand for oil upwards.

Second, one should not ignore geopolitical risks. Venezuela, which has the world’s second largest proven oil reserves, is sitting on a domestic powder keg with soaring inflation rates and growing political unrest. In Europe, Russia has regularly warned the West about potential disruptions to gas and oil production and distribution depending on how Western countries respond to the Ukrainian conflict. And in the Middle East, the Islamic State (IS) terror regime controls large parts of Iraq and Syria. Extended fighting may disrupt oil production going forward, affecting countries beyond just Syria and Iraq.

Third, the debate surrounding stranded assets remains as relevant as ever. Stranded assets refer to assets that are unexpectedly losing all or most of their value due to external events. The growing consensus that as much as 80% of existing fossil fuel reserves will have to be left in the soil to avoid catastrophic climate change would imply that these 80% are currently overpriced, while the 20% that would be extracted are completely undervalued. Hence, one cannot completely rule out the possibility of regulatory intervention.

Who benefits from a low carbon environment?

Any correlation analysis between renewable energy stocks and oil prices over the last few years shows a mixed picture. Although solar stocks and oil prices are usually uncorrelated, the second half of 2014 does show a strong correlation between the two. In our view, such a correlation is unjustified because oil no longer competes with renewables such as solar and wind for power generation. While in 1975 around 20% of global electricity production still came from burning oil, this percentage dropped to 4% by 2013, with the US generating only 0,9% of its electricity from oil.³

This implies that exposure to the renewable energy sector only offers a limited hedge against rising oil prices. The challenge with oil is that it cannot easily be replaced in the transportation sector on a large scale. Biofuels are not yet competitive compared to oil, and they compete with food production for limited land resources. Although R&D efforts have sought to find adequate alternatives to oil as a key input to pharmaceutical and synthetic products, the chemical industry remains

³ Deutsche Bank Market Research, “Industry Solar – Crossing the Chasm,” February 27, 2015

RobecoSAM Smart Energy Fund: Investment clusters

Cluster	Eligible no. of Stocks	% of Marketcap in Investment Universe	Beta Investment Universe vs. MSCI World*	Investments Areas
Natural Gas	32	20%	0.98	<ul style="list-style-type: none"> • Engineering, procurement & construction • Exploration & production • Gas utilities
Renewable Energies	62	15%	1.20	<ul style="list-style-type: none"> • Upstream equipment suppliers • Clean utilities: wind, solar geotherma, hydro
Distributed Energy Systems	39	16%	1.03	<ul style="list-style-type: none"> • Electrical Infrastructure (operators, suppliers, smart grid) • Energy storage
Energy Efficiency	98	49%	1.11	<ul style="list-style-type: none"> • Buildings: facility management (LEDs), insulation • Industrial processes: automation, electric motors • Natural gas & electric vehicles, public transport • Power management
Total	231	100%	1.09	

*Ex-ante Beta; Barra Aegis Global Equity model (31.03.2015)

Source: RobecoSAM

heavily dependent on oil. Therefore, making existing products and processes more oil and energy efficient would be a good first step towards protecting these sectors from future increases in oil prices.

Portfolio implications

The RobecoSAM Smart Energy fund invests broadly in energy efficiency, clean energy generation, energy transmission and storage, and natural gas. The energy efficiency segment has received increased focus as energy efficiency solutions can be applied to a range of applications, and the resulting energy savings offset the higher up front costs of using energy efficient solutions. In addition, companies enabling the interconnectivity of energy systems, including their IT integration, are also playing an increasingly important role in the fund.

In terms of valuations, companies in the Smart Energy Fund currently show a more attractive valuation than the MSCI ACWI Energy Index, with a price-to-earnings ratio of 21.3 versus 26.9 for the index. At the same time, the calculated ex-ante volatility and beta of the fund is much lower than that of the MSCI ACWI Energy total return index. The fund has outperformed MSCI ACWI Energy index over one year (+24.2% versus +6.4%) as well as over three years (+33.5% versus +15.2%). Despite its high exposure to energy companies, the MSCI ACWI Energy Index has not experienced the same strong downward movement as oil, leaving room for a future potential correction. The RobecoSAM Smart Energy Fund could be a less volatile alternative to the MSCI ACWI Energy Index to play the ever changing dynamics in the energy sector.

Valuation comparisons as of March 31, 2015

	RobecoSAM Smart Energy Fund	MSCI ACWI Energy
Market Cap Weighted Average USD (m)	9,724	115,870
PE Ratio forward 12M Est	21.3	26.9
Dividend yield (1 year)	1.42 %	3.61 %
Earnings growth forward 12M (%)	22.5	37.5
PEG Ratio	0.98	0.78
1-Year Performance (net of fees)	24.2 %	6.4 %
3-Year Performance (net of fees)	33.5 %	15.2 %
Ex-ante Beta vs. MSCI Energy	0.62	
Ex-ante volatility (%)	15.53	18.67

Source: RobecoSAM



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The Smart Energy Fund is available as EUR, USD, CHF and GBP share classes. For further information, please visit:
<http://www.robecosam.com/en/professionals/strategies-services/funds/energy.jsp>

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