Preparing for a Slide in Oil Prices

History May Be Your Guide

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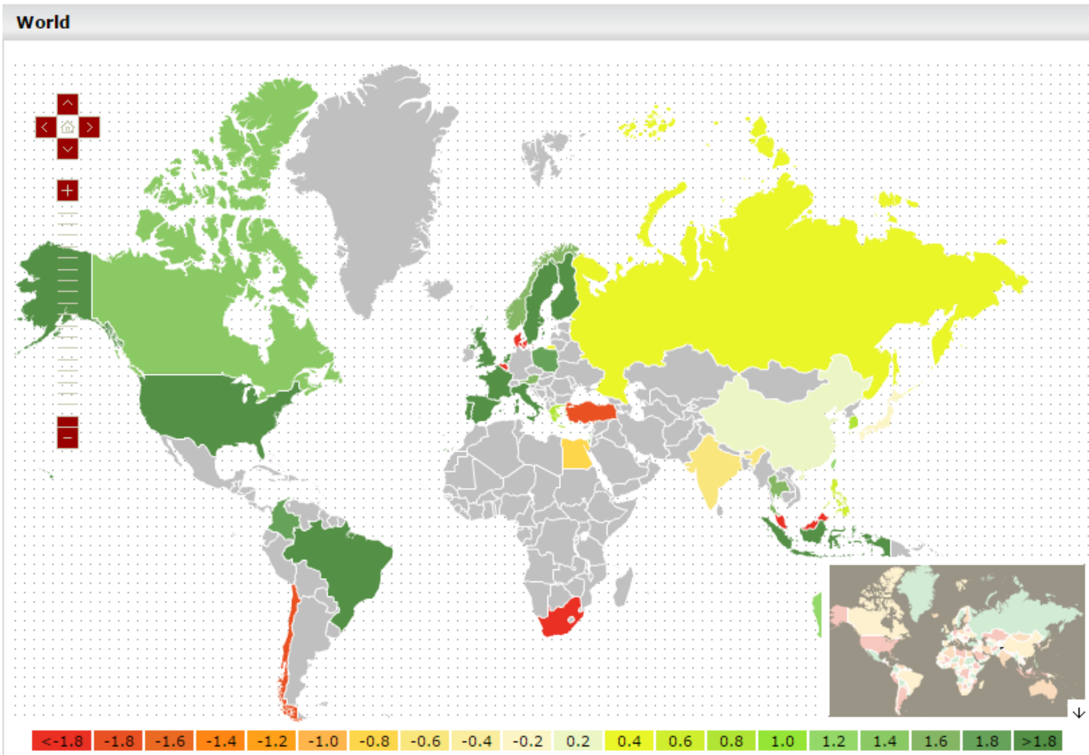
With the price of West Texas Intermediate (WTI) in the mid-forties, oversupply concerns and the continued threat of a global slowdown have led many to fear a resumed oil price decline. The year-to-date performance of Oil & Gas (O&G) companies, particularly Integrated O&G entities has been strong, further contributing to concerns that oil may be poised to retrench. The heat map below shows the performance of the Energy Sector relative to the S&P Global BMI Index for each country. The darker green signifies stronger performance relative to the local market.



Source: S&P Global Quantamental Research – Alpha Factor Library

Leveraging the S&P Capital IQ Alpha Factor Library, containing over 500 equity strategies, this brief explores the following questions that should aid investors in positioning for a decline in oil prices:

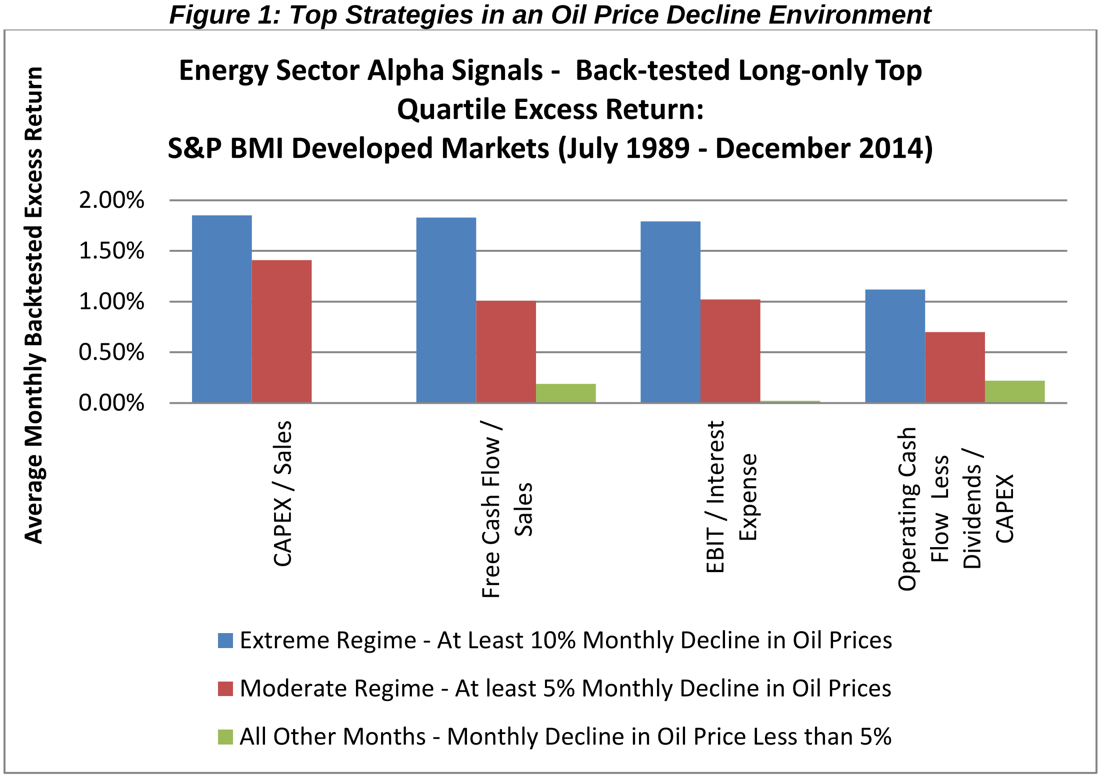
- Which strategies or factors have historically been the best performers in an oil price decline regime?
- In the most recent oil price decline regime, how did those strategies fare versus the longer term history?
- Were there strategies that worked in the recent oil price decline environment that had not been effective historically?

Historical Perspective - Strategies that Have Worked Over the Long Term

Recall that 2014 was a very weak year for oil and gas companies. With oil prices falling by around 40%, most energy tracking indices ended 2014 in negative territory. Globally, the worst relative return was in Brazil, where the energy sector underperformed the S&P BMI Brazil index by 25%, closely followed by the U.S. at 24%. Surprisingly in 2014, energy outperformed the broader market in Russia where investors were more concerned about the banking industry's foreign currency exposure as the ruble depreciated by over 40% against the dollar.

In periods of declining oil prices, what strategies or alpha signals have historically generated positive long-only excess returns in the energy sector? For this analysis, we looked at monthly changes in WTI spot prices from July 1989 to December 2014. We used two thresholds to capture declining oil prices, a 5% drop (moderate decline) and a 10% drop (extreme decline). All months with a 5% drop were grouped into a "moderate decline" regime and all months with a 10% drop were grouped into the "extreme decline" regime. We then proceeded to determine which alpha signals out of the 500+ we track globally generated positive long-only excess returns in both regimes. For each alpha signal, we selected the top 25% of names (top quartile) that were most attractive on that metric. The equal-weighted return to these top quartile names less the equal-weighted return to all energy stocks in the S&P BMI Developed Markets index represented the long-only excess return to that alpha signal. Our tests started in July 1989 and ran through the end of 2014.

Figure 1: Top Strategies in an Oil Price Decline Environment



Source: S&P Global Quantamental Research. Results are as of 12/31/2014. For the above exhibit, backtested returns do not represent actual trading results and were constructed with the benefit of hindsight. Returns do not include payments of any sales charges or fees. Such costs would lower performance. Indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

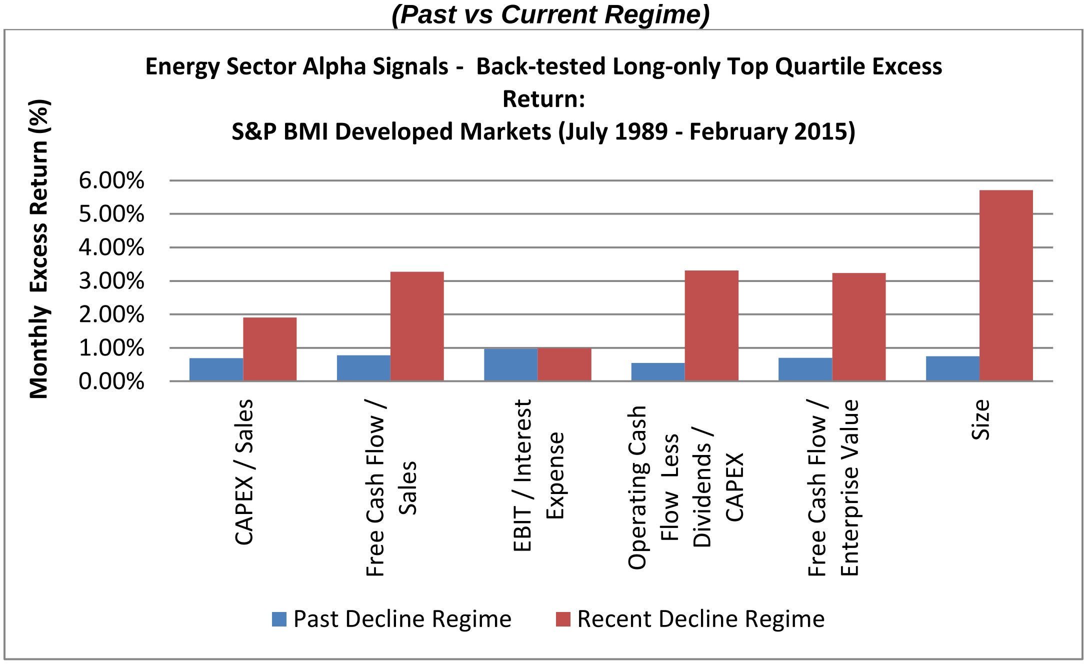
Four of the alpha signals with the largest long-only excess return in declining oil markets are highlighted in Figure 1 above. The blue, red and green bars are the long-only excess returns to each signal in the extreme, moderate, and neither extreme nor moderate regimes respectively. While all four signals are particularly strong in falling oil price markets (blue and red bars), they are flat or modestly up when oil prices are not declining significantly (green bars).

The regime analysis shows that oil & gas companies with relatively low capital expenditure requirements, high free cash flows and low to modest debt levels outperform their peers in periods of falling oil prices. Companies with high capital expenditure (CAPEX) requirements and weak cash flows may have to cut back on capital outlays required to sustain or increase current production output. In addition, debt service may become more challenging for companies with high debt profiles as revenues decline.

Does the Present Resemble the Past?

Investors with a pessimistic outlook on energy prices (given the recent run up in oil prices) may be curious as to how the strategies highlighted above have performed more recently. In other words, rather than looking at strategy performance over a 15 year period (1989-2014), what would performance look like if we restricted our observation window to the most recent period of falling oil prices (July 2014 – February 2015)? The second half of 2014 and early 2015 was characterized by high oil price volatility and several months with downward oil price movements larger than 5%. Our findings are based on two regimes--a "past decline regime," which consists of all months with a decline in WTI price of 5% or more prior to June 2014, and a "recent decline regime," which comprises all months with WTI price declines of 5% or more between July 2014 and February 2015.

Figure 2: Top Strategies in an Oil Price Decline Environment (Past vs Current Regime)



Source: S&P Global Quantamental Research. Results are as of 2/28/2015. For the above exhibit, backtested returns do not represent actual trading results and were constructed with the benefit of hindsight. Returns do not include payments of any sales charges or fees. Such costs would lower performance. Indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

The first four strategies in Figure 2 above are the same metrics shown in Figure 1. All four strategies delivered top-quartile excess returns in both regimes with the top-quartile excess returns in the current decline regime stronger for three of the four strategies (red bars). The stronger performance in the recent regime may be reflective of the extreme movement in oil prices that dominate the current regime--monthly oil price declines of 10% or greater. When oil markets fall this sharply, investors flock to safety: to oil and gas companies with relatively low capital expenditure (CAPEX) requirements, high free cash flows, and low debt levels.

The last two strategies in Figure 2 (free cash flow/enterprise value and size) were not highlighted in Figure 1, but both emphasize the same characteristics that investors value when oil markets are stressed. Free cash flow/enterprise value considers the availability of cash to meet both CAPEX and dividend obligations. Size, which selects large-cap stocks over small-caps, returned a long-only excess return of 5.71% and was the best strategy (in the recent regime) out of all six. The strong performance of a large-cap strategy suggests that investors were concerned about the “bankruptcy risk” associated with small-cap energy names as oil prices plunged.

Summary

Historical analysis of defensive strategies for a decline in oil prices show that four strategies stood out over the longer term and the recent price decline. The most recent price decline was particularly pronounced and in addition to the four strategies mentioned, investors favored larger capitalization names and those companies with strong cash flow.

Our Recent Research

June 2016: Social Media and Stock Returns: Is There Value in Cyberspace?

This review of social media literature represents a selection of articles we found particularly pragmatic and/or interesting. Although we have not done research in the area of social media, we are always on the hunt for interesting insights, and offer these papers for your thoughtful consideration.

April 2016: An IQ Test for the "Smart Money" – Is the Reputation of Institutional Investors Warranted?

This report explores four classes of stock selection signals associated with institutional ownership ('IO'): Ownership Level, Ownership Breadth, Change in Ownership Level and Ownership Dynamics. It then segments these signals by classes of institutions: Hedge Funds, Mutual Funds, Pension Funds, Banks and Insurance Companies. The study confirms many of the findings from earlier work – not only in the U.S., but also in a much broader geographic scope – that Institutional Ownership may have an impact on stock prices. The analysis then builds upon existing literature by further exploring the benefit of blending 'IO' signals with traditional fundamental based stock selection signals.

- Among the four classes of 'IO' signals, Ownership Dynamics showed the greatest efficacy, both on the long and the short side, after controlling for value, market, size and momentum, and across all geographies (except Japan).
- Results generated by larger institutional investors were stronger than those generated by smaller institutional investors, independent of institution type.
- Strategies constructed using ownership data generally show low correlation with signals constructed from fundamental data sets in the U.S; blending 'IO' signals with fundamental signals improved the annualized information ratio (by 34%), long-only return (by 23%), and long-short return (by 32%) compared to a standalone fundamental strategy among Russell 3000 companies.

March 2016: Stock-Level Liquidity – Alpha or Risk? - Stocks with Rising Liquidity Outperform Globally

Most investors do not associate stock-level liquidity as a stock selection signal, but as a measure of how easily a trade can be executed without incurring a large transaction cost or adverse price impact. Inspired by recent literature, such as Bali, Peng, Shen and Tang (2012), we show globally that a strategy of buying stocks with the highest one-year change in stock-level turnover has historically outperformed the market and has outperformed strategies of buying stocks with strong price momentum, attractive valuation, or high quality. One-year change in stock-level turnover has a low correlation (i.e., <0.15) with commonly used stock selection signals. When it is combined with these signals, the composites have yielded higher excess returns and information ratios (IR) than the standalone raw signals.

February 2016: U.S. Stock Selection Model Performance Review - The most effective investment strategies in 2015

Since the launch of the four S&P Capital IQ® U.S. stock selection models in January 2011, **the performance of all four models (Growth Benchmark Model, Value Benchmark Model, Quality Model, and Price Momentum Model) has been positive each year**. The models' key differentiators – a distinct formulation for large cap versus small cap stocks, incorporation of industry specific information for the financial sector, sector neutrality to target stock specific alpha, and factor diversity – enabled the models to outperform across disparate market environments. In this report, we assess the underlying drivers of each model's performance in 2015 and since inception (2011), and provide full model performance history from January 1987.

January 2016: What Does Earnings Guidance Tell Us? – Listen When Management Announces Good News
This study examines stock price movements surrounding earnings per share (EPS) guidance announcements for U.S. companies between January 2003 and February 2015 using S&P Capital IQ's Estimates database. Companies that experienced positive guidance news, i.e. those that announced optimistic guidance (guidance that is higher than consensus estimates) or revised their guidance upward, yielded positive excess returns. We focus on guidance that is not issued concurrent with earnings releases in order to have a clear understanding of the market impact of guidance disclosures. We also explore practical ways in which investors may benefit from annual and quarterly guidance information.

December 2015: Equity Market Pulse – Quarterly Equity Market Insights Issue 6
With commodity prices plunging, global economic trends diverging, and market volatility rising, analyst estimates for 2016 have been revised sharply lower. Yet estimates remain strong in particular regions and sectors, and valuations have moderated. This issue of Equity Market Pulse uses bottom-up trends in estimates and global risk-return and investment strategy performance metrics to address these questions:

- Which global regions and economic sectors have the strongest 2016 growth expectations?
- Where have 12-month estimate revision trends held up the best and worst?
- With investors focusing on the new year, which regions offer the most value?

November 2015: Late to File - The Costs of Delayed 10-Q and 10-K Company Filings
The U.S Securities & Exchange Commission ("SEC") requires companies to submit quarterly (10-Q) and annual (10-K) financial statements in a timely manner. Companies that cannot file within the statutory period are required to file form 12b-25 with the SEC. In this report we examine the relationship between late filings (form 12b-25s) and subsequent market returns, as well as whether late filings signal deeper fundamental problems within the company. Our results, within the Russell 3000 universe (February 1994 – June 2015), indicate that abnormal returns of late filers is negative prior to and post form 12b-25 filing. Late filers are also typically companies with poor fundamental characteristics relative to peers; investors may want to consider avoiding or short-selling these firms. This report is a continuation of our work in the area of event driven investing, a class of strategies that originate from company specific events.

October 2015: Global Country Allocation Strategies
In this report, we investigate the efficacy of fundamental, macroeconomic and sentiment-based strategies for country selection across global equity markets. Using point-in-time fundamental and macroeconomic data, we constructed signals at the country level, grouped into five themes: valuation, quality, sentiment, volatility and macro. We examined their performance between January 1999 and November 2014 for the developed and emerging markets in the S&P Global Broad Market Indices Our major findings include:
- Valuation is a common driver of performance in both developed and emerging markets.
- In addition to valuation, we found macro and sentiment based indicators to be effective country selection signals in developed markets.
- We found currency depreciation to be important when emerging market countries were separated into exporting and importing nations.

September 2015: Equity Market Pulse – Quarterly Equity Market Insights Issue 5
The Q3 issue of Equity Market Pulse spotlights potential opportunities in Asia, attractive growth and valuations in developed Europe and Japan, and risks associated with rising volatility and elevated 2016 global EPS estimate levels.

September 2015: Research Brief: Building Smart Beta Portfolios
Why is smart beta important? We believe that smart beta is continuing to gain momentum among a variety of constituencies, including ETF providers, asset managers and asset owners. Many asset managers are making smart beta part of their investment processes. European and Canadian public pension funds have been increasingly relying on internalized smart beta, with the largest U.S. pension funds and endowments also adopting the approach. The purpose of this brief is to aid asset managers and owners in building their own "internal" smart beta processes with a focus on portfolio construction and optimization, including how to manage liquidity and turnover constraints and avoid unintended factor bets.

September 2015: Research Brief – Airline Industry Factors
This brief examines S&P Capital IQ's industry-specific factors for the global airline industry. The seven airline industry factors contained in S&P Capital IQ's Alpha Factor Library consist of ratios widely used by airline industry analysts. The factors address airline profitability in terms of growth, capacity utilization, and operating efficiency. By applying the factors to regime analysis, we find:

- During periods of low fuel price increases industry growth factors are most effective.
- During periods of high fuel price growth, efficiency factors stand out.
- During periods of high revenue passenger growth our studies show that both growth and fuel efficiency factors performed well.

August 2015: Point-In-Time vs. Lagged Fundamentals – This time i(t')s different?

August 2015: Introducing S&P Capital IQ Stock Selection Model for the Japanese Market

July 2015: Research Brief – Liquidity Fragility

June 2015: Equity Market Pulse – Quarterly Equity Market Insights Issue 4

May 2015: Investing in a World with Increasing Investor Activism

April 2015: Drilling for Alpha in the Oil and Gas Industry – Insights from Industry Specific Data & Company Financials

March 2015: Equity Market Pulse – Quarterly Equity Market Insights Issue 3

February 2015: U.S. Stock Selection Model Performance Review - The most effective investment strategies in 2014

January 2015: Research Brief: Global Pension Plans - Are Fully Funded Plans a Relic of the Past?

January 2015: Profitability: Growth-Like Strategy, Value-Like Returns - Profiting from Companies with Large Economic Moats

November 2014: **Equity Market Pulse – Quarterly Equity Market Insights Issue 2**

October 2014: **Lenders Lead, Owners Follow - The Relationship between Credit Indicators and Equity Returns**

August 2014: **Equity Market Pulse – Quarterly Equity Market Insights Issue 1**

July 2014: **Factor Insight: Reducing the Downside of a Trend Following Strategy**

May 2014: **Introducing S&P Capital IQ's Fundamental China A-Share Equity Risk Model**

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February 2014: **Obtaining an Edge in Emerging Markets**

February 2014: **U.S Stock Selection Model Performance Review**

January 2014: **Buying Outperformance: Do share repurchase announcements lead to higher returns?**

October 2013: **Informative Insider Trading - The Hidden Profits in Corporate Insider Filings**

September 2013: **Beggar Thy Neighbor – Research Brief: Exploring Pension Plans**

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January 2012: S&P Capital IQ Stock Selection Model Review – Understanding the Drivers of Performance in 2011

January 2012: Intelligent Estimates – A Superior Model of Earnings Surprise

December 2011: Factor Insight – Residual Reversal

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October 2011: The Banking Industry

September 2011: Methods in Dynamic Weighting

September 2011: Research Brief: Return Correlation and Dispersion

July 2011: Research Brief - A Topical Digest of Investment Strategy Insights

June 2011: A Retail Industry Strategy: Does Industry Specific Data tell a different story?

May 2011: Introducing S&P Capital IQ's Global Fundamental Equity Risk Models

May 2011: Topical Papers That Caught Our Interest

April 2011: Can Dividend Policy Changes Yield Alpha?

April 2011: CQA Spring 2011 Conference Notes

March 2011: How Much Alpha is in Preliminary Data?

February 2011: Industry Insights – Biotechnology: FDA Approval Catalyst Strategy

January 2011: US Stock Selection Models Introduction

January 2011: Variations on Minimum Variance

January 2011: Interesting and Influential Papers We Read in 2010

November 2010: Is your Bank Under Stress? Introducing our Dynamic Bank Model

October 2010: Getting the Most from Point-in-Time Data

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