Commodities

Oil’s Rocky Road to Recovery

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Despite continued volatility, we believe the oil market is already seeing corrective actions needed for a price recovery. We are monitoring specific milestones—capital expenditure (capex) cuts, disciplined cash flow management, falling production and inventory draws—that should ultimately balance the global oil market over three phases, gradually returning markets to a modest supply deficit and a price closer to $60 per barrel (bbl) by late 2017.

Drowning in Oil

Crude oil has been a defining story over the past year. The 70% plunge in oil prices from their 2014 highs has wreaked havoc on corporate earnings, adversely impacted economies and markets worldwide, diminished inflation expectations and shaped central bank monetary policies.

The price decline has occurred not because of a precipitous reduction in demand for crude, but rather an imposing global surplus. This sea of excess oil was formed by two primary sources—the economic development of abundant U.S. reserves and the policy changes by the Organization of Petroleum Exporting Countries (OPEC).

The shale revolution in the U.S. hit its stride in 2011 as directional drilling and hydraulic fracturing (fracking) allowed companies to profitably tap oil that was locked in “tight” formations that previously would have remained untouched. In the four years that followed, U.S. oil production rose by an astounding 75%, to 9.6 million barrels per day (bpd), greatly reducing America’s need for imported oil. Increased U.S. production pushed global supply far ahead of demand, and crude oil inventories climbed to their highest levels in decades.

Highlights

- Our research suggests that supply cuts and modestly rising global demand could lead to sustainably higher prices toward the end of 2016, though below previous peak levels.
- Using conservative assumptions for the global economy, we expect oil prices in the mid-$40s by the end of 2016 and near $60 by the end of 2017.
- Higher oil prices should have positive implications for the entire commodity asset class, as oil is both the largest component of major commodity indexes and an important input in the production of other commodities.

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Exhibit 1: Three Stages to an Oil Price Recovery

<table>
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<tr>
<th>Now to Late 2016</th>
<th>Late 2016/Mid-2017</th>
<th>Late 2017+</th>
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<tr>
<td>Normalize</td>
<td>Rebalance</td>
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<td>$25–40/bbl</td>
<td>$40–55/bbl</td>
<td>$55–70/bbl</td>
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Supply > Demand; Inventories High

Low prices prompt reduced spending on new projects and permanently impair a certain level of current production, leading to slowing supply growth. The $25-40 price range reflects the cash operating costs of non-OPEC producers.\(^{14}\)

Supply = Demand; Inventories Stabilize

Market rebalances as oil well production decline rates\(^{6}\) accelerate and surplus inventories are worked off, pushing oil back to average historical price-to-cost multiples of $40-55.\(^{61}\)

Supply < Demand; Inventories Draw

The supply deficit drives prices to the longer-term level of $55-70, which is needed to encourage spending on new projects to cover future energy demand and decline rates.


Price per barrel (bbl) assumptions based on our estimates for global crude oil supply and demand trends. (a) Cash operating cost equals the sum of the production operating expenses + finding and development costs + royalties. (b) Decline rates represent the diminishing production of existing wells over time. (c) Price-to-cost multiple is the historical relationship between a commodity’s price and its cost, analyzed to determine when supply will respond and the subsequent recovery in price. See page 8 for additional disclosures.
At the same time, Saudi Arabia and other OPEC members have continued to pump oil at near peak capacity, abandoning their traditional role in setting a floor on prices by controlling output through quotas. The reason: if they allow the oil price to fall, it will drive higher-cost production out of the market, allowing them to recapture market share lost to shale producers, primarily in the U.S.

Yet U.S. production has proven to be remarkably resilient, slowing only modestly from a mid-year 2015 peak as continued technological advances have lowered break-even prices for new wells. Companies have also become more efficient in their use of capital by cutting expenses and developing lower-cost, higher-margin wells. Input costs such as fuel have also moved lower, in addition to oil services companies reducing their rates to incentivize producers to keep exploration and production E&P activity high.

Where does it go from here? Our base-case scenario for oil prices, shown in Exhibit 1, lays out the route we expect the commodity to follow over the next few years, from working through the current glut (normalization), to an inflection point between supply and demand (rebalancing), to a return to sustainably higher prices as supply struggles to keep up with growing demand (tightening).

**Phase 1: Normalize (Now to Late 2016)**

**Expected Price Range: $25–40/bbl**

Achieving higher oil prices will take some time, in our view, and is likely to be a volatile process as competing dynamics continue to play out over the next 6–12 months.

Despite the revenue lost from low oil prices and the great cost to its own economy, Saudi Arabia, which represents about one-third of OPEC production and is the cartel’s most influential member, has displayed no inclination to reverse course. Instead, we believe Saudi Arabia is likely to wait out other industry participants, knowing that most of the world’s production is unprofitable at current prices. In addition to having ample monetary reserves, the country is one of the lowest-cost producers and is able to weather this low-price environment longer than most other companies and countries.

Potentially further complicating the supply situation, Iran is resuming oil exports now that international sanctions relating to its nuclear program have been lifted. Tehran has vowed to return its oil exports to pre-sanction levels, implying an eventual increase of more than 1 million bpd. Although reaching that level may take more than a year, it’s widely believed that the country could nevertheless increase production by as much as 350,000–500,000 bpd in a relatively short period of time.

However, the first phase of the transition to higher oil prices is actually well underway. Cheap crude has forced global energy companies to drastically cut spending on oil exploration and development, by nearly 25% in 2015 and another estimated 25% in 2016. Although the impact of these cuts on production has thus far been limited, the effects will be amplified over time. Even with increased exports from Iran, an expected reduction in U.S. production this year, coupled with accelerating decline rates and a modest increase in global demand, should narrow the oil surplus.
We expect oil prices to stabilize and drift gradually higher in 2016 (short-term swings notwithstanding) as the supply/demand balance normalizes.

Exhibit 2 displays the global oil supply/demand balance over the past decade and Cohen & Steers’ forecast through 2018. After reaching a surplus of 2 million bpd in mid-2015, excess supply is poised to decline meaningfully throughout 2016 as low prices take a toll on suppliers.

However, prices are only likely to react favorably in a sustained fashion after there has been a considerable reduction in excess supply. In the meantime, given still-high inventories and elevated bearish sentiment, oil prices may remain quite volatile. With tank farms nearing full capacity, a short-term return of spot prices(1) to the mid-$20s is not out of the question.

Most of the world’s oil production (at full-cycle costs) is unprofitable at current prices. As a result, the current supply glut will abate as higher-cost producers are forced to adapt to the present environment. Indeed, as we’ll discuss in this report, the catalysts for rebalancing the market are already in play, although it may take some time for the market to right itself.

Ample supplies are only one part of the equation. In the past, a sharp decline in crude oil prices was widely hailed as being good for the economy, acting much like a tax cut for consumers, who could use the savings to spend on other goods and services. This time, however, consumers didn’t spend the windfall, but instead used the money to increase their savings (reduce debt). Additionally, the decline has been so steep that low oil prices have actually acted as a drag on growth, specifically from a manufacturing perspective.

Consider that energy companies account for more than a quarter of all global listed capital expenditures. In addition to stiff reductions in oil companies’ spending (see Exhibit 3), we’ve seen layoffs in the oil patch and, not surprisingly, reduced consumer spending in the affected areas. Credit Suisse estimates that cuts in commodity capital expenditures totaling nearly $1.3 trillion have slashed global growth by 1.4%. The subsequent decline in oil prices, to around $35/bbl, suggests that global growth could slow by an additional 0.5% in 2016.

(1) Spot is the price for immediate delivery.
As the negative feedback loop progresses, this round of slower economic growth, at least partially attributable to plummeting oil prices, is likely to further reduce the pace of demand for oil, and lengthen the time required to work off the current supply glut. This will likely serve to restrain oil prices for another 6–12 months, keeping them in the $25–40/bbl range, which is based on non-OPEC cash operating costs. If prices hold in this range, a certain level of production will become permanently impaired.

**Phase 2: Rebalance (Late 2016/Mid-2017)**

**Expected Price Range: $40–55/bbl**

By late 2016/mid-2017, we believe the market will reach an inflection point, as rising demand catches up to the shrinking excess supply resulting from steep production cuts. During this phase, we believe prices can migrate toward the $40–55/bbl range based on historical price-to-cost multiples, at which point the market rebalances as decline rates accelerate and inventories stabilize.

Oil companies have drastically scaled back their E&P budgets to cope with the drop in petroleum prices (Exhibit 3). Indeed, North America capex in 2016 is headed for an 11-year low. As a result, non-OPEC production is expected to decline by 700,000 bpd in 2016 alone, with most of the drop occurring in North America.

Geophysics will also play a part in balancing the oil market. Left on its own, a well produces less oil with each passing year as the reservoir’s gas pressure depletes. The rate at which a well’s output naturally declines can vary greatly due to the geology of the formation from which the oil is sourced and the technology used to optimize the well’s production. However, the aggregate global decline rate for producing oil fields in the absence of new investment is estimated to be 4.5% annually. Over time, an increasing number of new wells must be drilled simply to hold production steady, never mind to increase output.

Global oil and gas capital spending will fall dramatically for the second consecutive year in 2016, causing a steep decline in production.
In other words, over the intermediate term, the natural decline in oil production will lead to a gradual improvement in oil market conditions. Over the long term, lost production due to the above-mentioned spending cuts will have a much bigger impact on the market.

**Phase 3: Tightening (Late 2017+)**

**Expected Price Range: $55–70/bbl**

As the oil surplus wanes and balanced conditions return to the market, we expect oil prices to trend higher. Persistent tight supply, we believe, will propel oil back to the $55–70/bbl range. This is based on the range of longer-term incentive prices needed to sanction new global projects to cover future demand growth and offset decline rates, which we assume to be 25–30 million bpd over the next five years.

Even with higher prices, the market could be slow to respond with new production. Exhibit 4 looks at the cost curve of projected new crude oil supply out to 2030, based on an examination of approximately 700 fields by IHS Energy. This exhibit shows that in order to meet the future global oil requirements, higher prices will be required to incentivize new supply.

With substantial up-front capital requirements and an average break-even price for new projects of $62/bbl, producers will only sanction the development of new projects after crude prices have remained elevated for a sustained period. Keep in mind also that the 2015-2016 collapse in global E&P spending will delay by years the time in which many new oil fields can be put into production. With no excess capacity available, new supply will come from areas that are able to ramp up production the quickest. North American shale producers are prepared to be among the first to market.

Significantly higher prices will be needed to encourage the development of additional oil supplies.
History also supports the idea of oil returning to the $55–70/bbl area, in our view. Exhibit 5 shows the historical price of crude and producers’ all-in extraction cost. Periods in which prices trade below production costs tend to be infrequent and fleeting, and the one-year percentage gains following such periods have generally been considerable, averaging above 40% over the last 45 years. We estimate that matching that long-term average this time would imply a rebound from around $30/bbl today to the mid-$40s in 12 months and near $60 within 24 months.

Exhibit 5: What Happens When Oil Prices Fall Below Extraction Costs?


Performance data quoted represents past performance. Past performance is no guarantee of future results.

(a) Brent crude oil is represented by the front-month futures contract price. See page 8 for additional disclosures.

Over the past 45 years, spot oil prices have rallied an average of 40% in the year after prices fell below average production costs.
Closing Perspective

We believe the three-phase process outlined in this report represents a conservative roadmap for the next few years: from working through the current glut (normalization), to an inflection point between supply and demand (rebalancing), to a return to higher prices as supply struggles to keep up with growing demand (tightening). However, the exact timing of the oil price recovery is uncertain.

We expect the oil market to remain unsettled over the next 6–12 months. Any indication that the oil surplus could persist (for example from weekly government reports) is likely to keep prices under pressure and prolong the normalization process. Press reports speculating that OPEC might reduce supplies, on the other hand, may spark temporary bullish sentiment in the commodity, which highlights one of the risks to our bullish assessment. If OPEC did officially announce a cut, this could cause a surge in prices but also a resumption of non-OPEC supply growth, and potentially a return to a prolonged oversupplied market.

A sluggish economy could delay an oil recovery. Global growth has weakened considerably as a consequence of reduced capital expenditures for oil extraction. If additional capex cuts slow global GDP further, it could push out the rebalancing process, delaying the rebalancing phase. Only as the surplus is reduced and the market naturally moves toward more balanced conditions are we likely to see enduringly higher prices.

Higher oil prices should have positive implications for commodities as an asset class. Petroleum is one of the largest components of both major commodity indexes, so it tends to have a meaningful impact on commodity allocations. In addition, higher oil prices could attract capital back into the energy markets over time, potentially leading to improved manufacturing activity, job and wage growth, and economic stability for key exporting countries. Higher energy prices would also mean higher input costs for base and precious metals and certain agriculture commodities, eventually driving their prices up as well.

Due to the impact energy prices have on inflation as a whole, a recovery in oil could lead to higher-than-expected inflation globally. Our research shows that commodity performance has historically shown a high sensitivity to unexpected inflation, which is why inflation protection is one of the key rationales for diversifying with commodities, along with other real assets.

From an asset allocation perspective, we believe the prospects for a recovery in oil and a potential recovery in global inflation suggest that current levels may offer a compelling entry point into commodities for long-term investors able to withstand near-term volatility. Commodities and other real assets have historically provided valuable investment benefits, including inflation-hedging characteristics, portfolio diversification and attractive long-term risk-adjusted returns. These qualities have taken on increasing importance for many investors in recent years, as evidenced by the growing allocations to real assets among institutions globally.
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