Long-term Crude Oil Outlook
The Global Oil Balance - 2016-2040

ESAI Energy presents two global oil balances, one covering the period from 2015 to 2021 by year and one covering the period 2015-2040 by five year increments.

The Medium term (five year) outlook shows there is really no room for OPEC to reverse course on the production cuts begun in 2017. OPEC (with the help of others) has brought the global market back to balance, but will have to keep working to keep it there. Rising non-OPEC output and moderating demand growth will keep a lid on the call on OPEC crude. This means the upside for oil prices in the next five years is limited, absent a new disruption.

The Long-term balance (to 2040) indicates that the decade after 2020 will also be difficult. Mexican reforms will lift crude oil production offsetting faster North Sea declines. U.S. Shale will still be expanding for much of the decade. Canadian production is likely to rise with the completion of one or more export pipelines. At the same time, the pace of global oil demand will continue to slow. It is not until after 2025 that the call on OPEC crude begins to rise in earnest.

Please note we have included here the "Energy Insight" from this year's edition of our Long-Term Crude Oil Outlook as a preview of the full contents of this report.

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Energy Insight: A Turn Away from Trade?

The history of the global oil market can be divided into four periods: (1) The emergence of market forces led to (2) low prices and low investment, which in turn led to (3) high prices and resource scarcity, which recently gave way to (4) low prices and resource plenty. Now, we may be on the verge of a fifth period characterized by a turn away from the transparent, efficient, deregulated global oil market of the last 35 years.

The Turn to Markets

The liberalization of the global oil markets got underway in the 1980s, the decade after the second oil crisis. Within the U.S., oil prices were decontrolled; vehicle fuel economy standards were introduced in the 1975 Energy Policy and Conservation Act; natural gas and nuclear power gradually replaced oil in power generation.

Meanwhile, higher world oil prices stimulated non-OPEC production and cut global oil demand. In the market for the marginal barrel of crude (the spot market) prices fell below OPEC’s elevated and fixed price. Not surprisingly, independent refiners, traders and even the integrated majors bought more crude in the spot market. By the early 1980s, crude oil transactions at spot prices or prices tied to the spot market accounted for more than 50 percent of total international crude oil transactions.

Within OPEC, the role of swing producer in defense of higher prices became increasingly untenable for Saudi Arabia. Ultimately, the Saudis abandoned this role, a market share war ensued and prices collapsed in 1986. Since then, almost all of the world’s oil has been sold bilaterally with transactions linked to market-based pricing, such as netbacks or formulas tied to spot or futures prices.

“Market forces” became the dominant organizing principle of the global oil sector. Multilateral lending shaped by the market-friendly Washington Consensus encouraged the deregulation of domestic oil industries and the liberalization of petroleum product pricing all over the world as countries opted to integrate into the large, transparent and, for many years, low priced global oil market. The view that market forces, rather than government policies, were best suited to allocate resources equitably was mirrored by the rise of Reagan-Thatcher laissez-faire conservatism of the 1980s and the eventual collapse of the Soviet bloc by the early 1990s. The devaluation of the Russian ruble and the Asian financial crisis later in the 1990s showed the folly of policies that ran counter to market forces in global capital markets. In the early 2000s, the market-friendly approach of the Bush Administration, China’s accession to the World Trade Organization (WTO) and further deregulation of the financial markets continued to underscore the dominance of the “market.”

The Perception of Resource Scarcity

In a system dominated by the cost-reducing pressure of market forces and the proliferation of oil suppliers, it is not surprising that oil demand grew far more than oil investment during the last two decades of the 20th century. This led to the elimination of spare capacity throughout the supply chain, making the oil sector vulnerable to disruptions and accidents, which encouraged higher prices in the new century.
In a market of lean capacity and with an emerging consumer like China, the financial markets saw oil (as well as other commodities) as clear targets for investment. The interest of institutional investors in buying and holding commodities and the exploitation of lax leverage requirements by investment banks is well known and contributed to the “super cycle” in commodity prices. Some of the same behaviors in other markets contributed to the financial crisis in 2008, which in turn exacerbated the great recession.

**The Reality of Resource Plenty**

Not long after the financial crisis, the promise of U.S. shale came into view. The combination of fracking and horizontal drilling lifted the U.S. oil producing sector. U.S. shale and Canadian oil sands swelled North American oil (and natural gas) supplies, redrawing the oil trade map as North American oil imports were pushed away, and headed to Asia.

The following trade flow charts show the impact of rising oil prices since the beginning of the 21st century, the sheer size of energy export revenues for the Middle East countries, and the shift towards Asia of every exporting region. They also show the impact of falling oil prices on export revenues by 2015.

The North American supply boom shifted global markets back to plenty. The decades of resource scarcity and high prices came to an end. In a move reminiscent of the 1980s, OPEC responded with a market share war that contributed to the surplus and brought oil prices down to 1990s levels.

As explained throughout this long-term global supply-demand outlook, even with OPEC cutting output in a landmark agreement at the end of 2016, it will not be enough to bring back the age of scarcity. Rather, the global oil markets look headed for tenuous balance, vulnerable as much to new supplies as new disruptions.
A Turn Away from Trade

Looking back over the last 35 years, market forces and transparent pricing have shaped supply and demand all over the world, in spite of (and sometimes helped by) OPEC’s periodic distortion of price signals. One result has been tremendous geographic expansion in international oil trade, which has made petroleum the model of a highly functional global market. The 2015 lifting of the U.S. ban on crude oil exports may go down in history as the capstone of the era of global oil trade.

As we sit here in 2017, two developments threaten that model. One is currently embodied by the Trump Administration whose America First policies are likely to push the United States closer to energy autarchya. It is too early to know for sure, but references to Republican tax reform hint at policies that will penalize corporations with foreign supply chains through border adjustments or import fees. Oil and gas will not be immune to these policies. Moreover, the United States will not be alone in this. The United States’ willingness to impose trade barriers will be met by the same. The strength and efficiency of global oil trade may allow for a nimble response at first, but the trend will be towards less free trade and thus less efficiency in supply, demand and price.

The other threat is China’s actions in the South China Sea. In 2016, China’s crude imports reached more than 7.0 million b/d, approximately 70 percent of domestic refinery demand. It is not surprising that China has tremendous interest in the offshore oil reserves of the South China Sea. The volume of reserves is not fully known and estimates vary. The Chinese Ministry of Land and Resources estimates 55-130 billion barrels of oil reserves and 700 trillion cubic feet of natural gas reserves. Obviously, the security and development of the energy resources of the South China Sea are critical to China’s effort to reduce its dependence on imported energy.

Another concern is the security of sea lanes through the South China Sea and Malacca Strait. Crude oil from the Arab Gulf and Africa, which comprises 50 percent of China’s imports, transits the Malacca Strait and passes through the South China Sea to reach Southern China. After processing in Chinese refineries, petroleum products such as gasoline, gasoil, and jet fuel are exported to Southeast Asian and African countries on the same route back. In addition, large quantities of liquefied natural gas (LNG) from Qatar and Australia move through the South China Sea to China. As a result, China sees the energy transit routes in the South China Sea as critical to their national security.
The buildup of China’s military assets in the Spratly and Paracel Islands, and its naval force at Hainan Island, has been striking and portends military standoff at best and conflict at worst in this critical trade corridor. This physical threat to trade could parallel or even respond to the regulatory threat to trade under consideration in the U.S. Efforts to “control” certain trade flows by each of these countries will not only inhibit trade, but invite retaliation. Both would be steps backward for the global oil market.

In a 25-year outlook, one cannot put too much weight on current trends, but clearly the next decade will be marked by oil trade-related developments that will be a departure from the past. Any disruption to easy trade will create pockets of supply/demand imbalance and impact price relationships between trading hubs. New price relationships will reorganize trade. If current trade flows are relatively efficient, reorganization will likely increase costs and thus add to oil prices. Some consumers will live with higher oil prices while others live with lower prices. There should be a similar impact on the profitability of oil operations all over the world, making investment even more speculative, and thus more costly. In sum, a turn away from trade is likely to make oil more expensive.