Iran's return to world oil markets

What does it mean for production, markets, and investment opportunities?

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Deloitte Center *for* Energy Solutions

Executive summary

The imminent return of Iran to global oil markets, following an agreement to curb the country's nuclear program, could reshape global oil markets. If all goes according to plan, Iranian exports should begin rising in early 2016, both from the sale of oil in storage and from increased flows from older fields. Some new field development can also begin relatively quickly. The range of new Iranian exports in 2016 should be between 200,000 and 800,000 barrels a day (b/d), with about 500,000 barrels being the most likely average. This increase will come on top of Iran's 1 million b/d of existing exports. Further increases will require more investment and take longer. That investment initially will be led by the National Iranian Oil Company, with foreign investment coming later as investors become confident in the commercial terms and their ability to operate effectively.

More exports from Iran will have an impact on global oil markets in 2016, although we do not foresee them causing a further dramatic decline in oil prices. If demand rises as expected and supplies from other sources grow more slowly than they have recently, then a higher level of Iranian exports will moderate price increases rather than drive prices lower. It would take significantly weaker demand combined with new Iranian supply to push prices much below 2015 levels.

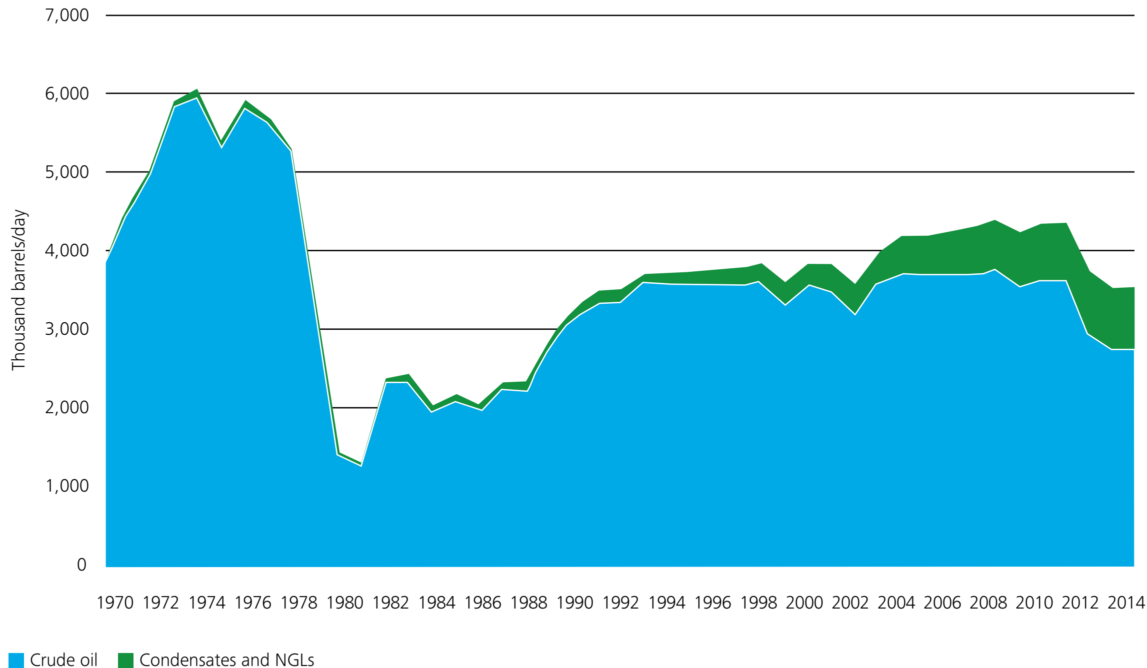
Petroleum sector opportunity and risk is only one factor in a much bigger picture in which regional geopolitics and rivalries, great spheres of influence, and the legacies of history will continue to create uncertainty and potential turning points that are unclear today.

Context

The agreement announced on July 14, 2015, between Iran and the P5+1 countries (China, France, Russia, Germany, and the US) seeks to resolve the long-standing impasse between the parties, lifting economic sanctions in exchange for constraining Iran's nuclear program. While the implications could be far-reaching in terms of geopolitical tensions, the regional balance of power in the Middle East, and prospects for the overall Iranian economy, the potential impacts on world oil markets could affect producers, consumers, and governments around the world.

While a variety of economic and financial sanctions have been imposed on Iran in the 36 years since the revolution, it was not excluded from world oil markets until mid-2012. Some exceptions were allowed or tolerated, permitting Iran to continue selling about 1 million b/d to several countries, mainly in Asia. However, historical production and export levels show how profoundly sanctions affected Iran's stature in the global oil market.

Iran oil production history



Source: BP Statistical Review of World Energy (June 2015) and Deloitte analysis

In 2011, the last full year before the sanctions on oil exports, Iranian crude oil production averaged about 3.7 million b/d, with exports estimated at 2.2–2.3 million b/d. For 2014, Iranian crude oil production averaged about 2.8 million b/d and exports averaged close to 1 million b/d (domestic crude oil refining accounted for the remainder of production). In the early to mid-1970s, prior to the Iranian revolution and the devastation of the Iran-Iraq war, Iran was able to produce 5.5–6 million b/d, a level to which it never completely recovered.

Given the time that has passed and the changes to the oil markets in the interim, the world is anxious to see and assess the ramifications of Iran's unfettered access to export markets. How fast will it ramp up production and exports? What will be the impact on global oil markets and OPEC cohesion? Will this be the first step in opening long-term investment opportunities for foreign companies in the Iranian exploration and production sector? The formal lifting of sanctions will take effect after the International Atomic Energy Agency has issued an initial assessment of Iran's early compliance with the deal's conditions. This report is expected in December 2015, meaning the resumption of Iranian oil exports will principally affect oil markets beginning in 2016. However, the anticipation of greater supply could begin influencing global prices toward the end of 2015.

Principal sanctions impacting Iran petroleum sector

1996 US Iran Sanctions Act
Directed at companies making investments in Iran's petroleum sector

2010 US Comprehensive Iran Sanctions Accountability and Divestment Act
More restrictive penalties against companies undertaking investment in Iran's energy sector

2012 EU Oil Embargo
EU prohibits oil imports from Iran

2012 EU Council Decision 35
EU prohibits insurance or reinsurance of Iran oil tankers and their cargoes

2012 EU Council Decision 267
EU prohibits loans or other financial instruments to individuals or organizations working in the Iran oil and gas sector

Iran production/exports

The years after the Iran-Iraq war, in the early 1980s, offer a historical perspective on Iran's ability to recover lost production. Total liquids production (crude oil and condensates) fell to 1.3 million b/d in 1981 from 5.3 million in 1978, after producing fields and logistical assets, such as pipelines, terminals, and refineries, suffered extensive war damage. At that time, Iran recovered about 1 million b/d in two years. It then took seven more years to add another 1 million b/d and surpass 3 million barrels once more. While circumstances are different today, this experience gives perspective on the resilience of the Iranian oil sector.

Once sanctions are effectively lifted, we expect Iran to increase exports fairly rapidly. Within several months, it should be able to increase exports by several hundred thousand barrels per day. Because the Iranian domestic market is already adequately supplied with crude oil, most of the incremental barrels will flow to the world market.

Iran Oil Minister Bijan Zanganeh expects to export 500,000 b/d initially, ramping up to 1 million b/d in six months. More conservative estimates put initial exports at 120,000 b/d, rising to 380,000 after 12 months.[1] These estimates set a range for 2016, on average, of 200,000 to 750,000 b/d. Either represents a significant addition to world oil supply, although the higher the outcome, the bigger the impact on market balances and prices.

Higher exports from Iran, at least initially, do not depend only on increasing flows from existing producing fields or reactivating idle ones. The country has also amassed a stockpile of between 30 and 40 million barrels that could supplement additional production. If Iran released this oil, it would boost exports by almost 100,000 b/d over 12 months or 200,000 b/d over six months.

The implication is that total Iranian crude oil production in 2016, on an annual average basis, could range from 3–3.7 million b/d, compared with the country's 2014 and 2015 production levels of about 2.8 million b/d. The remaining, more sustainable portion of Iranian production and export increases must come from using gas injection to revive reservoir pressure in existing fields and fast-track development of new onshore fields. This work can begin ahead of the lifting of sanctions. The success of these developments in the time available will determine how quickly Iran accelerates production in the first six to 12 months after the sanctions.

In the longer term, Iran must continue its field development through a combination of ongoing investment by the National Oil Company and new capital from foreign oil companies. Such investment programs will take longer to bring new production to market and will likely result in a gradual increase in production through at least 2020.

1. Commentary: Cracking Open A Window for Iran to Attain its *Economy of Resistance,*" Fuel Fix, July 12, 2015, http://fuelfix.com/blog/2015/07/12/iran-deal-and-oil-cracking-open-a-window-for-iran-to-attain-its-economy-of-resistance/.

Market impact

By comparing the projected global supply and demand balances for 2016 with 2015 and 2014, we can assess the potential impact of rising Iranian production. Any addition to supply without an equivalent increase in demand should result in a softer market.

In the July 2015 Short-Term Energy Outlook, the US Energy Information Administration (EIA) projects global liquids supply growth of 200,000 b/d for 2016.[2] The EIA produced its outlook before the Iranian deal was reached, so it does not include any new production from Iran. On the demand side, the EIA projects global liquids growth of 1.4 million b/d. Therefore, absent Iran, the EIA expects the world oil market to be significantly tighter in 2016, resulting in annual average prices for Brent and West Texas Intermediate crude to be about $7 a barrel higher in 2016 than 2015. This reverses the trend in 2014 and 2015, in which supply outpaced demand by an average of almost 1 million b/d, driving down prices by more than 44 percent.

So, could growing Iranian exports weaken prices just as it appeared they were strengthening? Even if Iran hits the upper end of its production estimates—800,000 b/d—for 2016, it would not be sufficient to replicate the imbalances of 2014 and 2015 or close the expected gap between supply and demand growth. However, prices may rise more slowly than the EIA projected.

Of course, in oil markets, prices rarely react to a single factor. Other questions could influence the outlook for oil markets next year:

- **Will OPEC adjust production to accommodate the return of Iran?** This is unlikely, given Saudi Arabia's dominant role in OPEC and its regional rivalry with Iran.

- **Will other sources of supply growth slow because of a weaker-than-expected price recovery?** Unconventional oil in North America would be the most vulnerable in this scenario, but a small price adjustment is unlikely to affect the production trajectory significantly. The price impact to shale producers will be much less than they experienced from mid-2014 to mid-2015. Their adjustments in operating costs and focus appear to have stabilized production, and we do not expect this to change significantly after Iran's return.

The demand side poses more uncertainty, especially with regard to economies such as China. The EIA projects China's oil demand will rise by almost 350,000 b/d in 2016, similar to 2015.[3] If Chinese growth were only half this rate, global balances still would not return to the imbalances of 2014 and 2015. Nothing short of a major global recession would create the conditions in which demand triggers a further collapse in oil prices.

Taking all these factors together, we will conclude that rising Iranian oil exports in 2016 will moderate the price recovery rather than induce a further price collapse. In the longer term, increased Iranian production will delay the return of oil prices to their 2011 to 2014 levels.

2. "Short-Term Energy Outlook," US Energy Information Administration, July 2015, http://www.eia.gov/forecasts/steo/pdf/steo_full.pdf.
3. ibid

Investment implications

Unlike other major oil-producing countries, such as Mexico or Saudi Arabia, Iran has a history of relying on foreign investment for oil sector development, which should make attracting capital and technology from foreign companies easier. Not surprisingly, some of the early commentary around the lifting of sanctions has speculated about the pace in which foreign investment returns to the oil sector. In the late 1990s, Iran concluded "buy-back" development contracts with foreign oil companies that tied rates of return to crude oil liftings of an equivalent value. However, companies could not book reserves. These terms were onerous in several respects; they did not compensate for cost-overruns, the allowed rates of return were low by upstream standards, and the restriction on reserve bookings further diminished the value of the deals. However, companies went into Iran with the expectation of establishing a long-term position and hopes of receiving more favorable terms for later deals. The arrangements were not in place long enough to determine if they would have been successful because Western companies suspended operations and withdrew from Iran as new sanctions were applied.

Given this history, Iran must offer better terms this time around. Competition for capital has increased with the emergence of unconventional plays globally, the rise of new deepwater basins in places such as Brazil and West Africa, offshore plays in East Africa, and the opening of Mexico. Iran must offer attractive, prospective fields, including both new projects and secondary and enhanced recovery opportunities in more mature fields. It also must offer competitive return rates and, crucially, the right to book reserves.

Companies will also need to carefully assess their ability to operate in Iran. They must understand the unique challenges of managing supply chains and importing equipment, as well as navigating permit requirements and the local bureaucracy. They also must establish good relations with local partners, suppliers, and government agencies. While these considerations are not unique to Iran, companies are likely to proceed with caution, because of experiences in Iraq, where bottlenecks and administrative difficulties have contributed to a much slower-than-expected production increase.

The overriding risk for any company setting up operations in Iran is whether this new agreement will succeed. Any compliance issues with Iran's nuclear activities, or even inspection and verification snags, could trigger renewed sanctions. As a result, foreign oil companies may be circumspect about committing significant capital to Iran until they are confident that they can stay for the long term. This could take a couple of years at least.

Because of these uncertainties, the return of foreign oil companies to Iran is likely to be gradual: an initial period of dialogue about terms and opportunities, followed by formal responses to any Iranian offers for investment; then, a fairly lengthy period of negotiation and preparation before significant work starts, allowing time to become confident in the sustainability of the post-sanctions environment and to develop the conditions for efficient and effective operations. Even in the best case, foreign investment is not likely to return to Iran until the 2020s. Companies that had a position in Iran in the 1990s and early 2000s may have some advantage over newcomers in institutional knowledge, data, people who are familiar with the government, and other relationships that may reduce risks of a new venture. This may give European and Asian oil companies an initial edge over their US competitors.

Finally, while foreign investment may accelerate development, Iran's National Oil Company has a long history of successful development and operations. It has highly qualified and experienced engineers and managers, adequate technology, and the direct experience of working in Iran. Even if foreign investment arrives slowly, Iranian oil production has good prospects for a revival during the next decade.

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