SPOTLIGHT:
THE IRAN NUCLEAR DEAL
MORE DROPS OF OIL?

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The nuclear deal with Iran demonstrates yet again how sensitive energy markets are to geopolitical events. Within 24 hours of the agreement's announcement, the price of oil dropped as the world geared up for more "black gold" to enter an already-saturated market.

What shifts in energy trends can be expected now that Iran has returned from the wilderness? What other industries will be impacted? As part of Wikistrat's new "Spotlight" series, we asked our energy experts to weigh in briefly on the subject.

DR. MARK NELSON

Chemical Process Engineer with more than 15 years of experience across diverse energy fields. Expert on the petrochemical and chemical industry.

Removal of the sanctions against Iran will grant it the ability to sell petroleum to Europe and elsewhere, as well as to cooperate with major international oil companies. Within a year of the actual sanctions removal, Iranian production capacity is likely to suppress oil prices very significantly. Iran is estimated to have the world's fourth-largest oil reserves, the capability to produce four million barrels of crude oil per day and the world's second-largest reserves of natural gas (behind Russia).

With two million barrels per day currently in oversupply being responsible for the low crude prices on the world market, Iran aims to increase production by one million barrels a day once sanctions are actually lifted. To achieve this goal, Iran will likely need to collaborate extensively with Western and Asian petroleum exploration technology firms and with major oil companies. The sanctions have kept Iran somewhat technologically behind in terms of petroleum exploration and extraction capabilities, and catching up will take time.

To add value to its oil and gas production, Iran will aggressively pursue expansion of its petrochemical production and oil refining capabilities to export value-added products rather than just crude oil and natural gas. This will follow the pattern currently observed in Saudi Arabia, where petrochemical and polymers production capacity is being vigorously expanded by companies like SABIC. This industrial expansion will create higher-skill, higher-wage jobs for Iranians.

Iran's vast reserves of natural gas are difficult to export to markets such as Europe due to the lack of sufficient infrastructure in terms of natural gas pipelines or liquefied natural gas terminals; moreover, the perpetual instability

and security issues of some of Iran's neighbors makes them unattractive for pipeline construction. This makes use of natural gas as feedstock to produce petrochemical products and polymers (which can be exported more easily than natural gas) quite attractive for Iran.

Due to the long lead times associated with major petrochemical plants, large refinery projects or polymer plants, it is unlikely that Iran's production of these products will increase significantly within a year. However, the U.S., Europe, China, Japan and other engineering, procurement and construction firms will find significant opportunities in the development process of new manufacturing facilities in Iran, or in the expansion and modernization of existing facilities.

This will have significant economic benefits for the firms involved; for example, a grassroots ethylene plant can cost up to several billion dollars to construct. The economic benefits of the reduction in sanctions for Western and Pacific Rim firms involved in related energy technologies should be very substantial within a one-year time frame as Iran seeks their assistance.

However, the increase in Iran's export of crude oil will likely suppress the market crude prices and thus have a negative effect on companies involved in the oil and gas industry. Over the longer term, Iran's potential to produce and export massive amounts of petrochemical products may suppress the market prices for these chemicals as well and impact the industry itself.

GARY HUNT

President of Tech and Creative Labs and an expert in energy market analysis, technology and business strategy.

The market worry is that Iran will flood the global oil market with stored crude oil once freed from sanctions. It remains unclear as of this writing, however, how soon sanctions will be lifted. If Iran does sell large quantities of crude oil it will further depress prices, but market volatility (including weaker economic growth in China, Middle East conflict disrupting supply, and the EU situation with Greece) argued for weaker demand over the forecast simulation period.

In the Wikistrat simulation exercise "Where Will Oil Prices Settle?" completed in January 2015, the analyst team concluded that oil prices were more likely than not to settle at around $60 per barrel over the next three years before the conditions leading to oversupply are resolved. See that simulation report for more details.

LORENZO NANNETTI

Analyst at ENI (Italian oil and gas company). Expert on European-Middle East relations, defense and energy security.

The two important questions here are (i) how much oil can Iran produce in the short–medium term due to the end of sanctions; and (ii) how will other players react?

Regarding the first question, the possibility of having Iranian oil production back in full swing already brought oil prices down by two percent in the first day since the deal's announcement. Several analyses, including one by the German Commerzbank[1], forecast Iran as being able to bring an additional one million barrels per day of oil online by the end of 2016. Others (like Italy's Nomisma Energia) forecast that level to be reached even earlier, thanks to relevant investments by foreign oil and gas companies flocking to Iran (mainly Eni, Shell[2]).

We may therefore imagine that oil prices will remain below $60/barrel. Iran itself, provided that foreign investment in the sector starts soon, may reach its maximum production level of 3.4–3.6 million barrels per day in a few years, which would depress markets further due to the increasing oil glut.

[1] See: Commerzbank Commodity Research: Commodity Spotlight Energy
[2] See: Oil prices likely to rebound in second half of 2015: Reuters poll

Iranian bureaucracy, however, may work against this, as international oil companies have expressed concerns on the possible details of contracts; negotiations for revenues and royalties are likely to delay the actual start of investment.

Regardless of the actual timetable, in the very short term we have to consider the already-extracted reserves of Iranian oil (about forty million barrels, according to the International Energy Agency) that are currently stocked in tankers near the coast and ready to ship. These could provide an immediate boost to the Iranian economy and further depress world oil prices.

This, however, also depends on the reactions of other oil producers. Riyadh in particular will try to limit Tehran's oil revenues by pumping oil at a maximum rate to keep prices down.

It is unlikely that prices will rise over $55–60/barrel, even if temporary swings are possible – especially if geopolitical tensions on oil flow security develop once more. Coupled with generally slowing global economies, demand will remain far below supply over the next 12 months. To maximize its gains, Iran will try to sell mainly to the Asian market due to links to India, China and South Korea, and because spot prices are higher there.

DR. JUSTIN DARGIN

Energy and Middle East Scholar at the University of Oxford. Expert on the global energy sector (natural gas, oil and renewables).

The announcement of a successful conclusion to the P5+1 negotiations with Iran silenced the deafening echoes of the war drums – for now. With silence came the glistening promise of millions of barrels of Iranian "black gold" gushing forth.

However, in the case of Iran, there are three somewhat-interrelated levels of impediments that could delay the flow of its oil to the global market: legal, contractual (terms of investment) and technical.

Firstly, the sanctions applied against Iran are a tangle of administrative and legislative efforts on the U.S. side – even with no U.S. congressional opposition it would take some time to "unpack" them.

Secondly, Iran has typically had contractual investment frameworks that generated extremely low rates of return for international oil companies, with a consequent lack of investor interest. Nevertheless, this particular obstacle appears to be receding as Iran has announced it would create a more competitive investment framework.

Finally, Iran has several technical challenges with which to grapple. Even before the application of Western energy-based and economic sanctions, Iran struggled to maintain its aging and mismanaged reservoirs. Its government lacked the advanced technology and investment funds required to maintain production levels. As a result, Iran often utilized older (and inadequate) maintenance techniques that damaged the long-term productivity of wells. Rectifying these issues will take time and substantial investment inflows from the world's international oil companies.

While the precise timeframe may be uncertain as to when increased amounts of Iranian oil will enter the market, it is certain to ultimately occur. Given the technical prowess of the Iranian oil bureaucracy and the prospect of broad-based investment by international oil companies, Iran could add up to one million new barrels of oil to the global market within 16 months. The projected oil increase does not include the amount of stored oil (approximately 40 million barrels) that Iran would likely attempt to sell as soon as sanctions are lifted. Still, much of this oil may be of inferior quality and would have to be sold at a large discount.

Yet, additional Iranian oil comes at a time when there is a significant glut on the international market and the world already has approximately two million barrels of overproduction. American shale oil–based production is still relatively robust, and Saudi Arabia and Iraq have notably increased their production. Uncertainty about China's economic growth

prospects and the ongoing Greek economic crisis reveal perceived weaknesses in the global economy. Most likely, there will continue to be a marked decline in international oil prices due to the downward pressure on oil prices emanating from Saudi Arabia, Iraq and Iran gearing up for market share competition to retain their foreign revenue in the face of weakening oil prices.

The Iranian nuclear deal is seemingly leading to a lessening of global bellicosity, a beneficial outcome in the age of renewed superpower tension. Unless the global economy regains its momentum, the price of oil in the medium term is almost certain to remain depressed, with negative consequences for renewable energy investment, global efforts on climate change and shale oil production.

DR. ROBERT CUTLER

Senior research fellow at the Institute of European, Russian and Eurasian Studies, Carleton University, Canada. Expert on energy security throughout Asia, Europe and North America.

The deal with Iran has the potential to influence world oil and gas markets over the longer term, but it is unlikely to affect them much in the medium term (one year). In the short term, it may cause greater price volatility, and even a short-term decline, due principally to market psychology. However, even these factors have likely already been priced into the market.

The proliferation and further development of shale technology is likely to have a greater influence upon global oil prices than the Iran deal. That is because the world oil price is no longer set by OPEC (with or without Iran) but rather by market response to American frackers, who have replaced the Saudis as the "swing" producers. Also, Iran's oil has already been on the world market, sold under or even over the table, often discounted, to countries who did not respect the sanctions in the first place. Export capacity will not change significantly in one year's time.

It is also unlikely that this deal will affect natural gas markets substantially in the medium term. The longer-term scenario of Iran exporting gas to Europe through Turkey would require a political decision in Tehran to forego the economic gain of other markets. Iran's gas is mainly in the country's south, so it would make much more sense to liquefy it for export to Asia, where demand is greatest. Also, Iranian political actors – with their eye on the domestic economy – have underlined the need to produce for the domestic market, setting a minimum five-year time horizon for any exports to Europe.

Over the longer term, a greater Iranian presence in global energy markets could affect prices, particularly if foreign capital were to invest in resource development. For that to happen on a large scale, however, there would have to be big changes in the domestic Iranian legal regime governing foreign investment.

But such a large lead time is necessary (even to further develop existing resources), so the influence of the agreement on world market prices over the short and medium terms will mainly be "noise." It will take the better part of a year for agreement parties to even approve and begin implementation.

DAVID LIVINGSTONE

Associate at the Carnegie Endowment for International Peace. Expert on energy security.

The real question is less about Iran's impact on the oil market, and more about the impact of the market on Iran. Tehran will require favorable conditions and a good amount of patience before new Iranian oil supplies are to come to the market in a meaningful way.

There is no reason to believe that Iran's relatively small impact on energy markets in the past several years is anything other than a historical aberration. They possess the fourth-largest proven reserve of crude oil in the world (behind Venezuela, Saudi Arabia and Canada) and are the oldest major oil producer in the Middle East. In 2014, Iran's oil production was approximately 3.6 million barrels per day, almost half of its historic 1974 peak of six million barrels per day.

However, sanctions imposed by the U.S. and the EU have hit Iran's oil sector particularly hard, and significant uncertainty remains regarding just how much damage has been done to major oils wells by premature closures in the wake of the sanctions. Oil companies – particularly key European majors – will be keen to ascertain the severity of the damage and assess the investment needed to resuscitate these wells.

Investment is clearly needed. In 2011, the last year before sanctions were tightened, Iran produced an average of around 1,750 barrels per day from 2,025 wells. Last year, the country produced an average of just over 1,350 barrels per day from 2,280 wells. In other words, the productivity of each well has dropped by 400 barrels per day in just three years, largely due to an inability to find buyers for the crude and to arrange for prices that justify the costs.

Even just bringing well productivity back to 2011 levels would, according to one analyst, add 900,000 barrels per day to the market over the course of approximately one year.

The Iranian oil minister, Bijan Namdar Zanganeh, considers the productivity challenge paramount. Minister Zanganeh admitted that much of the additional natural gas production expected in post-sanctions Iran will in fact be diverted to enhanced oil recovery in declining and underperforming oil fields.

It is still early days, but in a reasonably optimistic scenario, Iran could increase its oil production by up to a million barrels per day within one year, provided global prices are supportive, and that it can find buyers for the crude – in Asia as well as Europe.

STRATEGIC INSIGHTS

- Price shifts in oil and natural gas over the next 12–16 months will be minor, trending downwards. Any volatility will be a factor of market psychology more than anything else, but it is more than likely that nearly all variables regarding Iran's return have been priced into the market.

  - » On the supply side, the market is already overloaded due to Saudi overproduction, which has as much to do with undercutting the fracking industry as it does with the strategic foresight of denying Iran a potentially lucrative source of revenue.

    Iran's addition of close to one million barrels a day to the market within a 12–16 month period (a conservative estimate), along with the release of 40 million barrels of oil currently stored in tankers, will further significantly increase supply and keep prices low.

  - » On the demand side, China's slowing growth and the Greek economic crisis may signal weaknesses in the world economy and a decrease in the demand for oil.

    Iranian oil is also of inferior quality to most other oil on the market due to years of mismanagement and aging equipment.

- Iran awaits the arrival of international engineering, procurement and construction firms, given that it seeks to expand petrochemical and polymer production as well as its oil refinement capabilities. This means lucrative contracts for those firms who are willing to confront an archaic bureaucratic system. One way or another, Iran will try to bring its facilities up to standard so it can compete with other oil-producing states.

- In the long term, the smart money is on Iran's movement of oil and gas to Asia. Greater investment in technological capabilities for both oil and gas production, easing of control of these industries by the Iranian government, and the further development and growth of India and other Asian countries means that Iran has an easily-tapped market on its doorstep – one that does not carry the "moral" weight and baggage of the West.

- Earlier this year, Wikistrat ran a two-week crowdsourced simulation called "Where Will Oil Prices Settle?" in which analysts identified the key variables and actors at work in the movement of oil prices across global markets.

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