

Anthony Cordesman writes: A comprehensive agreement with Iran could result in the lifting of oil-related sanctions against Iran and a subsequent increase in Iran's crude oil production and exports, although the timing and details of any suspension of sanctions are uncertain. EIA has not changed its short-term projection for Iranian crude oil production, which assumes that production will stay close to the current level.

Iran produced 3.6 million b/d of crude oil in late 2011, before the recent round of sanctions was enacted. The sanctions forced Iran to shut in a substantial portion of its production, lowering output to an estimated 2.9 million b/d in June 2015. Iran's ability to bring online previously shut-in volumes and increase exports depends on several factors, including the current condition of oil fields and infrastructure that were shut in, the pace of sanctions relief, and the ability of Iran to find buyers in the present market. If a comprehensive agreement is reached, EIA estimates that the re-entry of more Iranian oil could result in a \$5/b-\$15/b lower baseline STEO price forecast for 2016.

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Iran is believed to hold at least 30 million barrels in storage. It is possible that Iran will attempt to move oil out of storage more quickly sometime during the second half of 2015 in preparation to increase production if discussions on sanctions show progress. As a result, the global market may see incremental increases in Iran's crude oil exports before seeing a substantial increase to Iran's production, but the pace at which oil in storage could be withdrawn is uncertain. Much of the examination of the Iran nuclear agreement has focused on the funds that would be released once Iran complied with the terms of the agreement. Some estimates of such funding have gone as high as \$150 billion-although U.S. experts put the total at \$100 billion and note that some \$50 billion of this money has already been obligated.

The other side of the story is how relieving sanctions would affect Iran's oil and gas exports and export income. This will be a function of how soon Iran complies with the terms of the agreement, how the agreement affects the lifting of sanctions, how much capacity Iran can bring back on line at a given time, Iran's ability to increase future production, the demand for Iran's exports, and the nature of the world oil market. It will also be affected by the strategic competition between Iran and Saudi Arabia and other crises in countries like Libya and Iraq.

There is no way to predict how these variables will interact in a climate as volatile as today's Middle East, much less the broader mix of uncertainties that shape

the world oil market. It is possible, however, to highlight the key features of the Iran nuclear agreement that will affect the timing of the lifting of sanctions, using work done by the U.S. Energy Information Agency (EIA), the CSIS Energy and National Security Program, and other experts on how sanctions have affected Iran's exports in the past and the possible implications of current trends.

These data are summarized in a new briefing by the Burke Chair at CSIS entitled "The Iran Nuclear Agreement and Iranian Energy Exports," which is available on the CSIS website at http://csis.org/files/publication/150804_Impact_Sanctions_Iran_Oil_Exports.pdf. This briefing draws heavily on work by the EIA and U.S. experts to illustrate the range of issues involved and to provide background for those who are not energy experts on this aspect of the Iran nuclear agreement.

In general, it suggests that Iran may be able to move back toward its pre-sanctions level of oil exports relatively quickly after it complies with the terms of the agreement. The most recent EIA estimate (July 2015) indicates that,

OPEC crude oil production averaged 30.1 million b/d in 2014, unchanged from the previous year. Crude oil production declines in Libya, Angola, Algeria, and Kuwait offset production growth in Iraq and Iran. EIA forecasts OPEC crude oil production to increase by 0.6 million b/d in 2015 and decrease by 0.2 million b/d in 2016. Iraq is expected to be the largest contributor to OPEC production growth in 2015. At the OPEC meeting on June 5, the group did not change its 30 million b/d crude oil production target. EIA forecasts OPEC crude oil production will continue to exceed that target over the forecast period, contributing to expected global inventory builds.

On April 2, Iran and the five permanent members of the United Nations Security Council plus Germany (P5+1) reached a framework agreement to guide negotiations targeting a comprehensive agreement by June 30. Negotiations continued beyond the June 30 target, and July 7 was agreed as the new target date for a comprehensive agreement. However, no agreement had been reached by the time of this writing. A comprehensive agreement could result in the lifting of oil-related sanctions against Iran and a subsequent increase in Iran's crude oil production and exports, although the timing and details of any suspension of sanctions are uncertain. EIA has not changed its short-term projection for Iranian crude oil production, which assumes that production will stay close to the current level.

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EIA believes that Iran has the technical capability to ramp up crude oil production by at least 700,000 bbl/d by at least the end of 2016, of which 600,000 bbl/d represents capacity that was previously shut in and 100,000 bbl/d is new capacity.

EIA's current STEO projects that growth in global inventories declines from 1 million bbl/d in 2015 to 100,000 bbl/d in 2016. If Iran ramps up production by 700,000 bbl/d by at least the end of 2016, then this could result in an annual average growth of about 500,000 bbl/d in global inventories in 2016, which would stress storage capacity limits and put downward pressure on prices... OPEC nontrade liquids production, which averaged 6.3 million b/d in 2014, is expected to increase by 0.1 million b/d in 2015 and by 0.2 million b/d in 2016, led by production increases in Qatar, Iran, and Kuwait.

What is far less clear is what global oil demand will be, what oil prices will be, and how other states will alter their production and prices to compete with Iran. It seems likely that Iran will see a significant increase in export volume in 2016, but the potential increase in income is far less clear. It is also unclear what level of demand exists for some of the oil and condensate it has put into storage.

It also seems likely that Iran will need several years in which to begin major increases in its oil production and gas exports. It has the reserve capacity to make major increases over time, but this depends on Iranian compliance and stability, regional stability, world markets, and attracting sufficient outside technology and investment.