

## **Tech Talk - Global Oil Supply and Iranian Production**

Posted by Heading Out on November 18, 2012 - 2:09am

One of the headlines this week from the IEA Report suggests that the United States will be the top global oil producer in five years. Yet back in DeSoto Parish in Louisiana, where the Haynesville Shale discovery in 2008 started the bonanza, revenues are now falling and school board budgets are strapped as the end of the glory days are beginning to appear.

Just this week Aubrey McClendon said that Chesapeake's <u>prospects for oil in Ohio</u>, where Chesapeake had high hopes for the Utica Shale, are now dim. It is easy to look at one of the large maps showing all the shale deposits in the United States that the Oil and Gas Journal include in their print editions, and to be carried away (as the IEA apparently are) with the vast acreage that is shaded on the map. Unfortunately, as we can see, reality tells another story. The size of the resources have been measured in the past, and with the best plays being given preference, the recognition of decline rates and unprofitable wells have not yet been given the prominence in the popular press that they will ultimately draw.

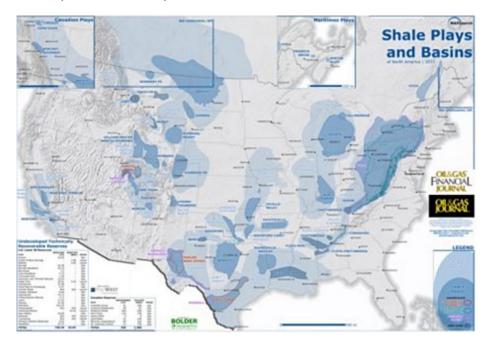


Figure 1. Shale Plays and Basins in the United States (Oil and Gas Journal)

It seems unrealistic to anticipate the levels now being projected for future North American production of oil. Nevertheless, these projections do tend to crowd conflicting stories on the subject out of the spotlight. Further, if the predictions for American production gains, even in the short term, turn out to be optimistic, then the impacts may be even more exaggerated than is currently appreciated. Consider that OPEC now expects that North America will continue to provide the greatest y-o-y increase in supply over other nations, and there are in fact, few other nations that will contribute much more in the next year.

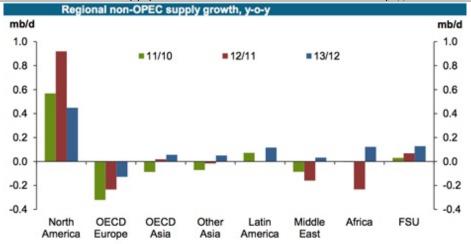


Figure 2. Non-OPEC supply growth expressed as a year on year change. ( $\underbrace{OPEC\ November}$   $\underbrace{MOMR}$ )

The MOMR notes that UK oil production has fallen below 1 mbd for the first time since 1977, while Norway's production has fallen to levels not seen since 1990. These numbers are part of an overall revision of non-OPEC production for 2013, which OPEC now sees as coming in, as follows.

Non-OPEC oil supply in 2013, mb/d								
							Change	
	2012	1Q13	2Q13	3Q13	4Q13	2013	13/12	
North America	16.45	16.66	16.78	16.91	17.23	16.90	0.45	
Western Europe	3.83	3.86	3.68	3.58	3.71	3.71	-0.13	
OECD Pacific	0.59	0.62	0.65	0.66	0.64	0.64	0.05	
Total OECD	20.87	21.14	21.10	21.15	21.58	21.24	0.37	
Other Asia	3.61	3.63	3.66	3.67	3.69	3.66	0.05	
Latin America	4.75	4.79	4.80	4.91	4.97	4.87	0.12	
Middle East	1.53	1.54	1.53	1.57	1.61	1.56	0.03	
Africa	2.36	2.39	2.46	2.52	2.55	2.48	0.12	
Total DCs	12.26	12.35	12.45	12.68	12.83	12.58	0.32	
FSU	13.31	13.38	13.36	13.43	13.57	13.44	0.13	
Other Europe	0.14	0.14	0.14	0.14	0.14	0.14	0.00	
China	4.20	4.26	4.23	4.23	4.25	4.24	0.04	
Total "Other regions"	17.65	17.78	17.73	17.80	17.95	17.81	0.17	
Total Non-OPEC production	50.78	51.27	51.28	51.62	52.37	51.64	0.86	
Processing gains	2.17	2.21	2.21	2.21	2.21	2.21	0.04	
Total Non-OPEC supply	52.95	53.48	53.49	53.83	54.58	53.85	0.90	
Previous estimate	53.00	53.52	53.53	53.87	54.61	53.89	0.89	
Revision	-0.05	-0.04	-0.04	-0.04	-0.04	-0.04	0.02	

Figure 3. OPEC projections of non-OPEC production for 2013. (OPEC November MOMR)

In regard to OPEC production, the MOMR has two tables for their production, with the first showing that based on secondary sources:

OPEC crude oil production based on <u>secondary sources</u> , tb/d									
	2010	2011	1012	2Q12	3Q12	Aug 12	Sep 12	Oct 12	Oct/Sep
Algeria	1,250	1,240	1,233	1,214	1,209	1,209	1,199	1,196	-3.3
Angola	1,786	1,667	1,763	1,738	1,709	1,813	1,670	1,778	108.1
Ecuador	475	490	492	493	499	502	499	497	-2.0
Iran, I.R.	3,706	3,628	3,391	3,086	2,734	2,729	2,673	2,626	-46.8
Iraq	2,401	2,665	2,705	2,956	3,128	3,134	3,188	3,183	-4.3
Kuwait	2,297	2,538	2,768	2,793	2,810	2,814	2,817	2,823	6.1
Libya	1,559	462	1,213	1,424	1,465	1,462	1,496	1,509	12.5
Nigeria	2,061	2,111	2,075	2,143	2,114	2,199	2,004	1,894	-109.6
Qatar	791	794	786	748	745	746	746	742	-3.4
Saudi Arabia	8,263	9,293	9,819	9,919	9,822	9,851	9,749	9,695	-53.8
UAE	2,304	2,517	2,598	2,607	2,653	2,647	2,652	2,663	11.3
Venezuela	2,338	2,380	2,381	2,367	2,348	2,349	2,321	2,339	18.3
Total OPEC	29,231	29,786	31,224	31,488	31,235	31,454	31,013	30,946	-66.9
OPEC excl. Iraq	26,831	27,120	28,519	28,532	28,108	28,321	27,826	27,763	-62.6

Totals may not add up due to independent rounding.

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*Figure 4. OPEC production based on other sources* (*OPEC November MOMR*).

The tables show that Iranian oil production continues to decline by around 47 kbd from September to October. Yet <u>other sources are now reporting</u> that both China and South Korea may have been helping Iran increase oil exports. As a result, production may have increased 70 kbd instead of declining, though the overall volume remains at around 2.7 mbd, of which exports rose from 1 mbd to 1.43 mbd.

When the "as reported directly" table is compared, Iran is shown to be still producing at around 3.7 mbd.

OPEC crude oil production based on direct communication, told									
	2010	2011	1012	2Q12	3Q12	Aug 12	Sep 12	Oct 12	Oct/Sep
Algeria	1,184	1,173	1,215	1,213	1,201	1,203	1,195		
Angola	1,691	1,618	1,734	1,716	1,677	1,744	1,714		
Ecuador	475	500	502	500	509	512	506		
Iran, I.R.	3,544	3,576	3,742	3,758	3,746	3,747	3,739		
Iraq	2,358	2,653	2,628	2,936	3,150	3,166	3,235	3,035	-200.0
Kuwait	2,312	2,660	2,995	2,990	2,957	3,025	2,900	2,930	30.0
Libya	1,487	462	1,296	1,503	1,504	1,552	1,537	1,562	24.9
Nigeria	1,968	1,896	1,880	1,971		1,988			
Qatar	733	734	745	737	726	723	735		
Saudi Arabia	8,166	9,311	9,883	10,002	9,760	9,753	9,724	9,724	-0.7
UAE	2,324	2,565	2,602	2,615	2,727	2,713	2,691	2,647	-44.4
Venezuela	2,779	2,795	2,792	2,818	2,824	2,828	2,812	2,779	-33.9
Total OPEC	29,020	29,942	32,015	32,758		32,955			
OPEC excl. Iraq	26,662	27,290	29,387	29,823		29,789			

Figure 5. OPEC production based on direct communication with the producing country (<u>OPEC November MOMR</u>).

Within Iran, the government has partially reduced the subsidies that it was providing for gasoline, which initially reduced demand by about 50 tb/d, and flattened internal demand. But as we enter the colder months, OPEC is estimating that demand will again start to rise.

Concurrently, Turkmenistan has stopped exporting natural gas to Iran. Normally Iran would increase imports over the winter months to around 1 billion cu.ft/day (bcf/d), although this import is partly for geographic reasons, and Iran has, in the past, exported about 80% of the equivalent volume to Turkey. Iran has apparently suggested that Turkmenistan increase the delivery to 1.4 bcf/d, but since Turkmenistan can now get a good price for its gas from China, there is more of a debate this year over price, without agreement at the moment. Iran also swaps around 35 mcf/d of natural gas with Armenia in return for electric power.

As a way to try and work around the current sanctions, Iran has been changing to a scenario

where it can move more of its oil <u>using its own tankers</u>. The country had been storing millions of barrels in part of this fleet, but that volume is being sold so that the vessels can, instead, haul oil. And there is the possibility that the insurance on these vessels has been "fiddled" to get around the burden imposed by sanctions.

Internally the sanctions are <u>having considerable effect</u>.

Although the government maintains that the official inflation rate is 25 percent. . . with some analysts claiming that actual figures are double the government rate. In addition, unemployment has soared, with estimates stating that between 500,000 and 800,000 Iranians have lost their jobs. . . "Business is drying up, industry is collapsing. There's zero investment," said an Iranian businessman in September. . . the government has attempted to shield the lower classes by offering them cash handouts and subsidizing certain imported staple goods, making them relatively affordable for poorer segments of the population. But even these efforts have had a limited effect, as the price of goods such as Barbari bread went from 1,000 rials to 5,000 rials last week.

There are even suggestions that the economy could "<u>essentially explode</u>" by next spring. On the other hand there are ways of <u>getting around sanctions</u>, and these may allow the crisis to continue to simmer for some time.

All this would suggest that exports of Iranian oil will not be easily available for some time, although with a new regime in China their commitment to maintaining current levels of trade is now unclear. China will open two new refineries one for 240 kbd in Quanzhou that is scheduled to start next June, and one for 300 kbd that is to be located in Zhanjiang, with oil for the latter anticipated to come from Kuwait. Nevertheless, it may be that China, which is currently taking about half the Iranian exports might find it possible to accommodate more.

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