



Week in Review

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Tsvetanov*

4 Secret Reserves?

China increases strategic reserve during price glut.

[Read More](#)

Shale Revolution

Can it spread to UK? [Read More](#)

5 Fewer Actors

Rosneft purchases state share of Bashneft. [Read](#)

[More](#)

Production Cut Exception

Nigeria struggles with internal affairs. [Read More](#)

Legislation Rewrite?

New deal would fly against current Russian law.

[Read More](#)

6 Libyan Exports

First tanker of the year headed for China. [Read](#)

[More](#)

World Energy Congress

Putin shares concerns and vision of future. [Read](#)

[More](#)

Energy News Blog

2 OPEC Deal: Riyadh and Tehran Reached a Pact on Reducing Crude Oil Production

– Sophie Nguebana

Two major players in the OPEC feud over production cuts have finally come to an accord. ENERPO student Sophie Nguebana reports on the implications going forward. [Read More](#)

3 The Surprising Resilience of the U.S. Shale Industry and its Win Against OPEC and Other Major Oil producers

– Kelsey Zimmerman

U.S. shale producers prove resilient as every in adapting technology and methods to accommodate the less than advantageous oil prices in global markets. IMARES student Kelsey Zimmerman examines how companies have survived historic low prices. [Read More](#)



Saudi Aramco Headquarters in Dhahran City, Public Domain



Energy New Blog

OPEC Deal: Riyadh and Tehran Reached a Pact on Reducing Crude Oil Production

– Sophie Nguebana

As producing countries gathered in Algiers for talks on September 28, Riyadh and Tehran unexpectedly reached a pact on modestly reducing crude oil production. The exact numbers will be determined on November 30, but the September deal is still significant. It is the first time that the cartel members agreed on reducing their oil outputs since the 2008 crisis. The goal is to drop crude oil production to 32.5 million bbl/d (which has reached 33.47 million bbl/d in August). Should parties fail in reaching the agreement on November 30, it will be a disaster according to some OPEC sources.

For two years, crude oil price has been tumbling. In June 2014, crude oil Brent price was US\$ 110 per barrel and fell down to \$30 per barrel at the beginning of 2016. Currently, the Brent price is just under \$50 per barrel. Apart from the US shale revolution, another significant reason for the oil price drop is the recovery of Iran. As the sanctions on Iran were lifted, it set a target output of 4 million bbl/d – roughly the level it pumped before oil sanctions were imposed in 2012 – and above the country's current level of around \$3.6 million bbl/d. Moreover, the recovery of Libya and Nigeria has also played an

important role in the oil price drop. Since Libya has reopened its oil terminals it produces today more than 0.4 million bbl/d. Nigeria produced 1.92 million bbl/d in 2015.

The spark that has led to the immediate turnaround was the Saudi Arabia's gargantuan financial crisis. If the price decreases continue, Riyadh will suffer a fiscal deficit equal to 13.5% of GDP this year. Indeed, almost two-thirds of Saudis revenues are based on oil. The IMF reports that in order for Saudi Arabia to recover, an increase in in per barrel price up to \$67 per barrel will be necessary. "There is a lot going on domestically in Saudi Arabia and a price less than \$50-60 a barrel was not desirable," one Gulf OPEC delegate observed.

The agreement to reduce the crude oil production is a short-term positive for oil markets. However, reductions in OPEC production probably won't be fully in place until 2017 analysts say. The freeze agreement will only be really effective if non OPEC members will also agree on reducing their oil production i.e. Russia. However, according to some Russian sources, it is unlikely to happen in the short run. Eventually, OPEC members should truly respect their cuts otherwise this agreement will not result in any significant reduction of supplies and that is to say no change in oil prices.

[David Sheppard and Anjli Raval, 2016 Opec deal: How Riyadh and Tehran poured oil on troubled waters. Financial Times. 30 September, 2016.](#)

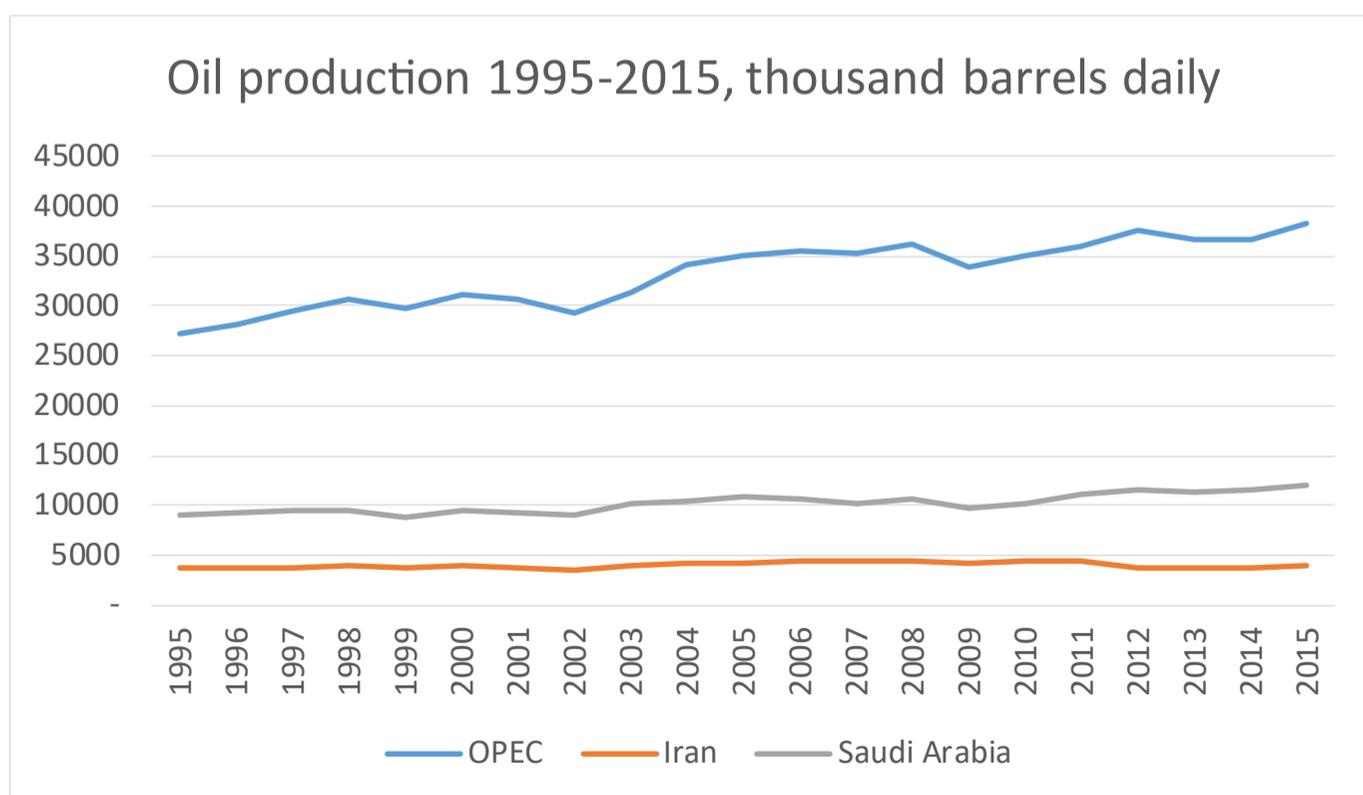


Figure 1: Oil production by OPEC, Saudi Arabia and Iran
Source: BP



The Surprising Resilience of the U.S. Shale Industry and its Win Against OPEC and Other Major Oil producers

– Kelsey Zimmerman

In its two year staring contest with American shale, OPEC and its leader Saudi Arabia have blinked. That was the popular analysis by multiple agencies when reporting on the sudden and unexpected decision announced by OPEC that they are now prepared to enact a cut of up to 740,000 bbl/d. Saudi Arabia, as OPEC's de-facto leader, is expected to take the brunt of the cuts, which makes for a dramatic reversal of their previous position that led to them refusing to cut oil production in 2014. When prices fell by 50% over the course of 2014, from US\$ 100 per barrel to around \$50 per barrel, the OPEC cartel believed that they would regain their market share from the higher-cost players known as marginal producers, including shale, who would be forced out of the oil industry by their significantly higher production cost. OPEC's surprise announcement still represented a "capitulation" to drillers in U.S. shale basins, who proved much harder to eliminate than their opponents expected, [said Katherine Richard, chief executive officer of Warwick Energy Group](#). The shale industry proved surprisingly resilient and survived with cost-cutting measures as well as aid from technological innovation. Oil price collapse from more than \$100 to its low of under \$28 per barrel "forced companies to reduce cost and spending, improve operating and capital efficiency and live within their means," Fadel Gheit, Oppenheimer's senior energy strategist, said in a note to clients Thursday. "We expect time and technology to make shale production even more resilient to low oil prices, and both are not on OPEC's side."

The new technological methods being employed to lower shale production costs are varied and unique. Aided by high-tech equipment, many companies use data analytics in order to determine the most strategic locations for new wells as well as the precise amounts of sand, water, and chemicals needed to maximize the amount of oil a well produces. There is also an industry wide exploration into refracking or redrilling old wells, using newer and better technology to recover whatever oil was left after the initial excavation, saving the cost of drilling an entirely new well. Working with multiple energy companies such as Norway's Statoil and Brazil's Petróleo Brasileiro, Glori Energy Inc. of Houston is testing out a process that uses microbes – tiny organic organisms – that when fed a special nutrient mixture, attach themselves to bits of oil, making it easier for crude oil to flow through rock. [Early tests show the technology can extend the life of a well by several years and boost the amount of recoverable oil by 33% from initial estimates, on average, Glori says.](#)

After OPEC's announcement, Brent and WTI rebounded on the news and remain up more than 10% for the whole week, over \$5 per barrel. Independent oil companies are using the post-OPEC rally to hedge their price risk for next year, banks and consultants said, a trend that's likely to be viewed with concern from Saudi Arabia to Venezuela. The clamor to hedge – locking in future cash flows and sales prices – could translate into higher U.S. oil production, especially by shale firms, next year, offsetting an output cut that the Organization of Petroleum Exporting Countries outlined in Algiers last week. Goldman Sachs forecasts the U.S. will be pumping an additional 600,000 to 700,000 barrels of oil a day on top of the average 9.4 million barrels per day by the end of next year – making up for every drop lost in the recent years.

[Cook, Lynn, and Bradley Olson, 2016. Two Years Into Oil Slump, U.S. Shale Firms Are Ready to Pump More. The Wall Street Journal, 27 September, 2016.](#)

[Longley, Alex, and Javier Blas, 2016. Shale Oil Firms Hedge 2017 Prices in 'Droves' on OPEC Rally. Bloomberg Businessweek, 3 October, 2016.](#)

[Bloomberg, 2016. OPEC blinks. What will it mean for U.S. shale drillers? Fuelfix, September 30, 2016.](#)

[Sider, Alison, and Erin Ailworth, 2016. Oil Companies Tap New Technologies to Lower Production Costs. The Wall Street Journal, 13 September, 2015.](#)



Barnett Shale gas drilling rig near Alvarado, Texas (2008) by Loadmaster (David R. Tribble) - Own work, CC BY-SA 3.0



The Week in Review

China's Covert Oil Reserves

Geospatial analytics startup company Orbital Insight Inc. based in Palo Alto, California, announced that China may have more oil reserves than it has declared. Information is based on satellite images of 2,100 strategic and commercial petroleum reserve tanks capable of storing 900 million bbl, according to calculations derived from photos tracking the depth of shadows visible on top of the floating lids of the giant tanks. Orbital Insight emphasize that there may be more underground storage tanks. According to the Palo Alto data, estimated oil reserves in China amount to 600 million bbl in May 2016, while the Chinese official news agency Xinhua reported the presence of only 278 million bbl, which covers 36 days of oil imports. The real oil reserves in China can influence the situation on the oil market. The fact that China's reserves are greater than expected, means that oil demand growth in recent years hasn't been due to increased consumption, but strategic planning. It is uncertain wheatear China will continue to fill its tanks, supporting the oil demand, because there is no official data on the case. China outlined in 2009 its plans to build emergency reserves equivalent to 100 days of net imports by 2020. If the information presented by Orbital Insight is credible, then China could be closer to its goal than anyone thought.

[*Steven Mufson, 2106. China may be stockpiling more oil than anyone realized. The Washington Post. 29 September, 2016.*](#)

Fracking in Lancashire: is Fracking Spreading to Europe?

Cuadrilla Resources, an independent shale company, has begun development of shale gas reserves of Lancashire area in the UK. The company has been exploring for natural gas in Lancashire for almost four years. It's their belief that there are at least 200 trillion cubic feet of natural gas trapped in the shale rock in the area examined. Safely and sensibly unlocking Lancashire's energy could bring new economic growth to the Blackpool area, which has been underperforming in the last decades of post-industrial economy. The Tory Community Secretary Sajid Javid supported the company attempts at extraction and development by stating that this enterprise is an opportunity worth 64,000 new jobs, and that it could provide an cheaper independent energy source to many households in the area in the years to come. Nevertheless, Caudrilla's activities have met a strong opposition from the local communities, which are afraid of the environmental externalities of these fields. The Preston New Road Action Group, a local anti-fracking group, is concerned by the risk of polluting the ground with undisclosed and unknown chemicals, and they believe that it doesn't make sense to dig up more fossil fuels. In particular they state that the UK has just signed the Paris international agreement, which is coming into force next month, and it would make little economic or environmental sense to dig out fossil fuels when their consumption should instead be reduced. Despite the opposition, Lancashire's council objection to a fracking site was rejected on October 6, 2016. This is an important step forward for possible development of shale resources in the UK.

[*Adam Vaughan, 2016. Fracking given UK go-ahead as Lancashire council rejection overturned. The Guardian. 6 October, 2016.*](#)



Rosneft Cleared to Buy Bashneft

According to Russia's government directive, Rosneft is going to purchase the state's 50.08% interest in Bashneft for up to US\$ 5.3bln by October 15. This decision will increase Rosneft monopoly over the oil industry in Russia. Indeed, Rosneft and Bashneft combined will control 42% of the country's oil output. Vladimir Putin said it was probably "not the best option" for Bashneft. James Henderson, a Russia specialist at the Oxford Institute for Energy studies, argues that this growing monopoly in Russia's oil production could not be positive for the "efficiency and optimal development of the oil sector."

[*Jack Farchy, 2016. Moscow clears oil giant Rosneft's move to buy Bashneft. Culmination of battle among Russian elites cements Sechin's hold on oil sector. Financial Times. 6 October, 2016.*](#)

Tensions Escalate Over Oil in the Niger Delta

OPEC recently gave Nigeria a pass on output cuts amid a supposed ceasefire between the Niger Delta Avengers (NDA) and oil producers in the region, but other militant groups are stepping in for the NDA. Tensions and violence are high, particularly at the Forcados export pipeline, which was operated by Shell and forced to shut down in February due to attacks. The pipeline is set to resume production and companies are purchasing large amounts of the Forcados export crude, which may mean local militant groups are now eyeing the pipeline, which was one of the NDA's first attacks. Recent bombings of state run pipelines have been conducted by a group known as the Niger Delta Greenland Justice Mandate. The group has stated it will continue attacks despite the ceasefire and is specifically targeting state run facilities. Shell previously operated in the area but sold off its assets in Greenland. Shell has in fact sold most of its onshore oil production in the area due to violence. Militant groups are demanding things like more control over the areas resources and are deeply distrustful of Nigeria's government.

[*Julianne Geiger, 2016. Nigerian Oil Anxieties Mount, Even with OPEC Exemption. Oilprice.com. 6 October, 2016.*](#)

Gazprom and Shell May Expand Their LNG Cooperation in Russia

Royal Dutch Shell and Gazprom are in process of negotiating about each of the company's role in the planned Baltiisky LNG terminal. Rumors are, Gazprom will let Shell export LNG from the terminal by their own means, if this LNG is planned for the markets where no conflict of interest with Gazprom may take place. The US\$ 11.5bln plant is planned to be commissioned by 2021. Until then two giants have plenty of time to make an agreement. Most probably Shell will have 35% share, Gazprom 51%. Shell's involvement also brings much needed technical expertise. One interesting detail is that currently Russian law only allows natural gas to be exported by certain companies, none of them foreign, meaning existing legislation must be changed in order for the deal to be implemented. Doubtfully it will be a problem for Gazprom, but in any case, while Russia is under sanctions, prospects of this partnership are still unclear.

[*Yuri Barsukov, 2016. Сжуженное непосильным трудом \(Uneasily Liquefied\). Kommersant. 7 October, 2016.*](#)



Libya Reopens Second Oil Terminal

Khalifa Haftar, who has been an active participant in Libyan politics for decades, has returned from his exile in 2011 as the uprising against Gaddafi gathered momentum. According to the Newsweek, "Haftar had been appointed as commander of the LNA by the House of Representatives (HoR), an internationally-recognized successor to the GNC based in the eastern city of Tobruk". The big question was what would Haftar do about oil production and oil export facilities that fell under his control. It appears that shift will be towards Asian markets as on October 6th a tanker bearing 800,000 bbl departed for China. According to the article at Oilprice.com, "Libyan oil production has increased since the Haftar conquered the terminals. Before the North African country's civil war began in 2011, the OPEC member produced 1.6 million barrels per day." Haftar is working to get oil production back up, even if stability remains an even rarer and more valuable resource in Libya.

[*Conor Gaffey, 2016. Who Is Khalifa Haftar, Libya's Divisive General? Newsweek. 22 July, 2016.*](#)

[*Zainab Calcuttawala, 2016. Libya Reopens Second Oil Terminal Under Haftar Leadership. Oilprice.com. 6 October, 2016.*](#)

World Energy Congress Held in Turkey Attended by the Russian President

The World Energy Congress is World Energy Council's flagship event. The 23rd Congress took place in Istanbul on October 9-13, 2016. On October 10, the [Presidential session](#) took place, with speeches by presidents of (in the order of appearance) Northern Cyprus, Venezuela, Azerbaijan, Russia, and Turkey. The main theses that were put forward by Vladimir Putin (as reported by Tatiana Mitrova of ERIRAS) included the following: Russia is very concerned with the problem of energy poverty in the world, Russia respects and loves renewable energy, but still sees hydrocarbons as the basis of energy system (quoting extensively the figures from the IEA). The mess with oil prices is the consequence of overinvestment. The market has to be assisted to reach the balance by means of freezing / cutting output, which Russia has put forward and where Russia expects a decision to be made in November. Negotiations concerning the Turkish Stream were and are being conducted (this means that nothing is signed yet). And of course, Russia understands that Turkey is probably not the best place to hold the Congress, but is still happy for the victory of democracy and the Turkish nation over the reactionaries, who had attempted a coup.

[*Tatiana Mitrova, 2016. Short report from World Energy Congress \(in Russian\). Российский нефтегаз. 10 October, 2016.*](#)

[*Karel Beckman, 2016. Visions clash at World Energy Congress in Istanbul. Energy Post. 14 October, 2016.*](#)



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